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August 13, 2021

VIA EMAIL AND PRIVATE CARRIER

Gary Schold, Project Manager
Land Restoration Program
Land and Materials Administration
Maryland Department of the Environment
1800 Washington Boulevard, Suite 625
Baltimore, Maryland 21230

Subject: Transmittal of *In situ* sediment treatment Year Three Monitoring Report
Lockheed Martin Corporation – Middle River Complex
2323 Eastern Boulevard, Middle River, Baltimore County, Maryland

Dear Mr. Schold:

For your review, please find enclosed two hard copies of the above-referenced document. This report documents the third year of monitoring sediment contaminant bioaccumulation in areas where *in situ* treatment was implemented in the waterways adjacent to the Middle River Complex at 2323 Eastern Boulevard in Middle River, Maryland.

We respectfully request MDE's review comments or approval by the end of first quarter, 2022.

Please let me know if you have any questions. My office phone is (301) 548-2209.

Sincerely,

A handwritten signature in black ink, appearing to read "Tom D. Blackman", with a long horizontal flourish extending to the right.

Thomas D. Blackman
Project Lead, Environmental Remediation

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**IN SITU SEDIMENT TREATMENT YEAR THREE MONITORING REPORT
MIDDLE RIVER COMPLEX
2323 EASTERN BOULEVARD
MIDDLE RIVER, MARYLAND**

Prepared for:
Lockheed Martin Corporation

Prepared by:
Tetra Tech, Inc.

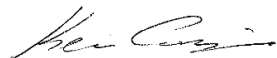
August 2021

Approved by:
Lockheed Martin, Inc.

Revision: 0



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ACRONYMS AND ABBREVIATIONS

| | |
|-----------------|---|
| BSAF | biota-sediment accumulation factor |
| C13 | carbon-13 |
| DI | deionized |
| kg | kilogram |
| L | liter |
| Lockheed Martin | Lockheed Martin Corporation |
| µg | microgram |
| µg/g | microgram(s) per gram |
| mg/kg | milligram(s) per kilogram |
| mL | milliliter |
| MRC | Middle River Complex |
| ng/g | nanogram(s) per gram |
| ng/kg | nanogram(s) per kilogram |
| ng/L | nanogram(s) per liter |
| PAH | polycyclic aromatic hydrocarbon |
| PCB | polychlorinated biphenyl |
| PE | polyethylene |
| pg/g | picogram per gram |
| pg/L | picogram per liter |
| PRC | performance reference-compound |
| RBDAA | Risk-Based Disposal Approval Application |
| RPD | relative percent difference |
| Tetra Tech | Tetra Tech, Inc. |
| USEPA | United States Environmental Protection Agency |

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SECTION 1 INTRODUCTION

On behalf of Lockheed Martin Corporation (Lockheed Martin), Tetra Tech, Inc. (Tetra Tech) has prepared this report documenting the third year (Year Three) of monitoring sediment contaminant bioaccumulation in areas where *in situ* treatment was implemented in the waterways adjacent to the Middle River Complex (MRC) at 2323 Eastern Boulevard in Middle River, Maryland (see Figure 1-1). This report provides monitoring data obtained for benthic (i.e., sediment dwelling) invertebrates, porewater, surface water, and sediment; these data were used to evaluate and assess reductions in the bioavailability of polychlorinated biphenyls (PCBs) in areas where *in situ* treatment was implemented in Dark Head Cove adjacent to MRC. This report is organized as follows:

Section 2—Site and Remediation Background: Presents site background information and summarizes remediation actions conducted related to the *in situ* treatment.

Section 3—Investigation Approach, Methodology, and Results: Presents the technical approach to the investigation and describes the field methodology and chemical analyses.

Section 4—Summary: Summarizes the sampling investigation and results.

Section 5—References: Cites references used in compiling this document.

Appendix A—Field Logs: Presents the sample collection field logs.

Appendix B—28-Day Laboratory Bioaccumulation Report: Presents the summary report of the 28-day bioaccumulation tests as prepared by the Tetra Tech, Owings Mills Laboratory.

Appendix C—Laboratory Data Packages: Includes the Vista Analytical and Alpha Analytical laboratory data packages.

Appendix D—Data Validation Reports: Presents data validation reports for the analytical data packages.

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SECTION 2 SITE AND REMEDIATION BACKGROUND

Past manufacturing and operational activities at the Middle River Complex (MRC) have resulted in elevated levels of metals, polychlorinated biphenyls (PCBs), and polycyclic aromatic hydrocarbons (PAHs) in sediment of the adjacent water bodies (i.e., Cow Pen Creek and Dark Head Cove) (Tetra Tech, 2006, 2008, 2011, and 2012). Elevated PCB levels in Dark Head Cove are a potential source of contamination to the aquatic food chain, as PCBs bioaccumulate in exposed organisms. Several *in situ* technologies were evaluated to reduce the potential ecosystem/human health impacts associated with PCB-contaminated sediment. Laboratory treatability testing in 2014 evaluated several carbon and treatment amendments to assess their effectiveness for reducing PCB bioavailability, and to reduce PAH and cadmium concentrations detected in sediment. Baseline data were collected in 2016, and contaminant concentrations in invertebrate tissue, in sediment porewater, and in surface water above the sediment surface were documented in areas proposed for *in situ* treatment of surface sediment.

After dredging and removal of adjacent areas of sediment was completed in Dark Head Cove between October 28 and December 6, 2017, approximately 2,500 tons of AquaGate[®]+, with a 10% content of powdered activated carbon, was placed over 13.7 acres in Dark Head Cove to amend the top 6 inches of surface sediment and to meet the targeted five percent loading of activated carbon. Confirmation sampling verified the initial placement of *in situ* treatment material over the targeted area (Tetra Tech, 2018a). The first year (Year One) monitoring of the *in situ* treatment area was completed in 2018 (Tetra Tech, 2019).

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SECTION 3

INVESTIGATION APPROACH, METHODOLOGY, AND RESULTS

This report provides third year (Year Three) bulk sediment, sediment porewater data, surface water, and bioaccumulation data for benthic (i.e., sediment dwelling) invertebrates (specifically, a freshwater oligochaete, *Lumbriculus variegatus*). These data were collected to monitor reductions in polychlorinated biphenyl (PCB) bioavailability originating from sediment in water bodies adjacent to the Middle River Complex (MRC). *In situ* treatment with activated carbon was implemented to reduce PCB bioavailability in sediment. During this investigation, bulk sediment and sediment cores were collected, and sediment passive-porewater samplers were deployed at the same five locations in Dark Head Cove where pretreatment baseline and Year One data had been collected and *in situ* remediation had been completed (see Figure 3-1). The following subsections describe activities associated with bioaccumulation testing and porewater sampling. Sampling and testing followed the procedures detailed in the *Long-Term In Situ Bioaccumulation Monitoring Work Plan and Quality Assurance Project Plan* (Tetra Tech, 2018b).

3.1 SEDIMENT SAMPLING

On October 1, 2020, bulk sediment was collected at each of five sampling locations for use in the 28-day bioaccumulation tests, and sediment cores were advanced for chemical and physical characterization. The bioaccumulation testing is described below in Section 3.2.2, and monitoring locations are shown on Figure 3-1. Global positioning system coordinates were recorded at each sampling location (Table 3-1). Each bulk sediment sample was homogenized in the field after collection, and again at the laboratory, before obtaining subsample aliquots for the 28-day tests. Duplicate samples were also collected from the homogenized bulk sediment for PCB congener analysis at Vista Analytical using United States Environmental Protection Agency (USEPA) Method 1668C.

At each bioaccumulation sampling location, three cores were advanced to a depth of 1.5 feet to recover sufficient sediment to collect over the targeted depth of 12 inches. Each core was logged, and discrete samples were collected from each core, at intervals of zero to 2 inches, 2 to 4 inches, 4 to 6 inches, and 6 to 12 inches. Composite samples for each depth interval were made by combining discrete samples from each of the three cores at each sampled location. Core composite samples were analyzed for grain size, total organic carbon, and black carbon. Table 3-2 summarizes the sampling rationale and chemical analyses performed for the sampling program. Field logs are provided in Appendix A.

Water quality measurements were obtained during sample collection to support laboratory setup of the bioaccumulation tests. Surface water was also collected from the site for laboratory use during the 28-day bioaccumulation tests. Water quality parameter results are presented in Table 3-3.

3.2 BIOACCUMULATION TESTING

3.2.1 Four-Day Toxicity Screening Test

An initial four-day toxicity-screening test of control and test sediment was conducted to determine the survival of test benthic organisms (i.e., *Lumbriculus variegatus*) exposed to sediment from each sampling location. The screening tests entailed establishing a control sediment sample and five replicates for each sediment sampling location; each was then inoculated with 10 test organisms and subjected to light and temperature control per the 28-day test protocols. Results of the screening test after four days show survival of *L. variegatus* did not differ significantly from the control sample, suggesting that the site sediment samples were nontoxic. Details of the toxicity screening tests are in Appendix B.

3.2.2 28-Day Bioaccumulation Test Setup and Procedures

Twenty-eight-day bioaccumulation tests were conducted using the five replicate samples of each bulk-sediment sample. Tests were initially performed from October 14 to November 11, 2020. Water quality monitoring of the test systems indicated that the site water used for testing had higher measurements for alkalinity, hardness, and salinity than observed during the 2018 (Year One) tests. At the completion of initial testing on November 11, 2020, the freshwater worms had not

survived over the 28-day testing period. Therefore, the 28-day bioaccumulation tests were reconducted from November 17, 2020 to December 15, 2020; this testing period was within the recommended 56-day holding time for bioaccumulation tests. Surface water collected from Dark Head Cove for use in the laboratory bioaccumulation tests was diluted to a salinity of approximately 2 parts per thousand to reduce worm mortality in subsequent testing. At the completion of the second 28-day test, all test setups had recoverable worms for tissue analysis.

For each test, mesocosms (test beakers) were prepared by transferring 1.2 kilograms (kg) of sediment to a two-liter (L) beaker with one liter of overlying site (surface) water. After the sediment had settled in the test beakers and the water quality parameters had stabilized, 1.3 grams of test organisms (obtained from Aquatic Biosystems of Fort Collins, Colorado) was added to each test beaker. During the 28-day test period, 750 milliliters (mL) of the water overlying the sediment was exchanged twice daily in each test beaker. Details for the 28-day bioaccumulation tests are included in Appendix B.

At the beginning of testing, a polyethylene (PE) passive sampling strip, prepared as outlined in Section 3.3.1, was added to the sediment to measure the sediment porewater in each of the bioaccumulation test mesocosms. The strip remained in the sediment for the entire 28-day test duration. At the completion of the test, the PE strip was retrieved, rinsed with deionized (DI) water, and wiped with a clean paper towel to remove adhering sediment and debris. All cleaning was carefully performed to minimize/avoid tearing or ripping the PE sheets. The PE sampler sheets were individually packaged in sampling containers with 1 mL of DI water. The samples were shipped overnight to Alpha Analytical for analysis.

3.2.3 Bioaccumulation Tissue-Sampling and Analyses

At the end of the 28-day bioaccumulation tests, the test organisms were collected from each of the five replicates, placed in fresh site water collected from Dark Head Cove, and allowed to deplete (i.e., eliminate excess solids) for 24 hours before being sampled for analysis. The individual tissue samples from each replicate were submitted to Vista Analytical for analysis of 209 PCB congeners using USEPA Method 1668C (high-resolution gas chromatography/high-resolution mass spectrometry). Each tissue sample was also analyzed for lipid content using a method for low-volume samples.

3.3 SEDIMENT PASSIVE PORE-WATER SAMPLING AND ANALYSES

Passive porewater samplers were deployed directly into the sediment on October 1, 2020, to monitor Year Three (2020) conditions *in situ* at the same five monitoring locations in Dark Head Cove from which baseline (2016) and Year One (2018) sediment had been collected for the bioaccumulation tests; these sampling locations were also where *in situ* remediation was completed as part of the remedial action (Figure 3-1). The passive samplers were left in the sediment for 28 days and were retrieved on October 29, 2020. Sediment porewater samples were collected to compare current dissolved PCB concentrations in sediment porewater at Year Three (2020) to the pre-remediation baseline data (2016) and the Year One monitoring data (2018). Passive samplers were added to the laboratory bioaccumulation tests to measure sediment porewater concentrations for the 28-day study duration. The passive samplers for the bioaccumulation tests were prepared and cleaned using the procedures outlined below for media preparation and *in situ* passive samplers. Thus, a comparison of both an *in situ* and *ex situ* method is available using this approach. Sampling medium preparation, deployment, retrieval, and analysis are described in the sections below. Figure 3-2 shows the *in situ* passive samplers used in the study, both pre- and post-deployment.

3.3.1 Passive-Sampler Media Preparation

Pieces of 1-mil (26-micrometer)-thick PE measuring 8 inches by 4 inches were prepared and precleaned by Alpha Analytical for use in passive-sampler deployment and testing. The PE sheets were cleaned using methylene chloride, followed by methanol, and finally by DI water. The cleaned sampling medium was then prepared by spiking it with five carbon-13 (C13)-labeled PCB congeners as performance reference-compounds (PRCs): C13-PCB28, C13-PCB52, C13-PCB101, C13-PCB153, and C13-PCB159.

For verification and quality control, nine samples of prepared PE sheets were extracted and analyzed following the PRC spiking. The percent relative standard deviations for PRC concentrations on sampler media are shown in Table 3-4. The precision of the PRC-spiked PE sheets used for the sampling met the target criterion of 10%. The PE sheets were individually packed in clean sample jars with approximately 1 mL of DI water to keep the medium moist, and

then shipped on ice to Tetra Tech's Owings Mills laboratory for deployment at the site and for use in the 28-day bioaccumulation tests.

3.3.2 Dark Head Cove Sediment Passive-Porewater Sampling Deployment and Retrieval

Passive porewater samplers were deployed at the five locations across Dark Head Cove (Figure 3-1). Three replicate samplers were placed within the top 4 inches of sediment at each location. Each cleaned PE sheet (inoculated with PRCs) was attached to a stainless-steel frame with wire mesh tied over the top to keep the sampling medium in place across the frame. The passive samplers were mounted to a weighted support frame so that they would be held vertically for insertion into the sediment to a depth of four inches (Figure 3-2). The passive-sampling support frames, with attached samplers, were deployed from a boat, submerged, and placed in the sediment. At each passive-sampling location, another PE sheet was attached to the frame approximately 9 to 12 inches above its base; this was done to monitor the overlying water concentrations just above the sediment surface.

The passive porewater samplers were retrieved after 28 days, using the following steps: 1) the support block for the samplers was pulled up to the boat using the recovery line that had been run to secure tie-off locations along the shore, and samplers were inspected for integrity; 2) the passive samplers were removed from the support frames and cleaned in the field by rinsing with site water; and 3) the samplers were transported to Tetra Tech's Owings Mills laboratory for cleaning and then packaged for shipment to Alpha Analytical for PCB congener analysis. Passive samplers were not recovered from monitoring location 301. During the sampler retrieval, the lead-lined security rope was found severed between the shoreline and sampler. Attempts to locate the sampler in the deployment area were not successful.

The passive samplers were cleaned at Tetra Tech's Owings Mills laboratory by rinsing them with DI water, wiping them with a clean paper towel to remove adhering sediment and debris, and scrubbing them with dedicated clean brushes to remove any remaining material. All cleaning was carefully performed to avoid tearing/ripping the PE material. Sampler PE sheets were then individually packaged in the sampling containers in which they were delivered from the laboratory with 1 mL of DI water, and shipped overnight to the laboratory for analysis. One PE sheet was kept

as a field-blank/trip-blank sample and sealed for the duration of the monitoring period with ice to monitor the stability of the PRCs, as well as to monitor for any potential contamination from sample handling. The PE field-blank/trip-blank was submitted for analysis along with the field PE samples.

3.3.3 Passive Porewater Sample Analysis

The passive porewater samplers were analyzed at the Alpha Analytical laboratory for 209 PCB congeners using gas chromatography/low-resolution mass-spectrometry (USEPA Method 8270-SIM, modified). PCBs in the PE sheets were extracted with methylene chloride in clean jars/flasks for 24 hours using gentle agitation. Surrogate compounds were added to individual extraction vessels containing one PE sheet before adding solvent. A laboratory blank sample, along with a laboratory control spike sample and laboratory control spike duplicate sample, were analyzed with each batch of PE sheets. After extraction, the PE sheets were air dried and weighed, and the extract was analyzed; results were reported as micrograms (μg) of PCB congener per kilogram (kg) of PE. Sampling results were subsequently converted to porewater concentrations using the calculations described in Section 3.5.

3.4 DATA QUALITY OBJECTIVE AND DATA REVIEW

Benthic tissue data, bulk-sediment data, and sediment porewater data were collected during this investigation to compare Year Three (2020) results to baseline (2016) and Year One (2018) monitoring results. Samples were labeled as specified in the quality assurance project plan (Tetra Tech, 2016). Tissue, sediment, and porewater sampling results were reviewed and validated to identify any quality control or data usability issues. The analytical data were reviewed upon receipt for data completeness, laboratory and field-blank contamination, sample detection limits, and laboratory precision and accuracy. One of the field duplicate pairs (at location 301) for the bulk sediment total PCB analysis had an RPD of 189%. All PCB results for bulk sediment at location SD-301 were qualified as estimated. Collected and reported data for sediment sampling and tissue samples were 100% valid and usable.

Sediment and tissue samples were analyzed for PCB congeners using USEPA Method 1668C by Vista Analytical of El Dorado Hills, California. Sediment samples were analyzed for black carbon, total organic carbon, and grain size by Alpha Analytical of Mansfield, Massachusetts. Porewater

samples were also analyzed by Alpha Analytical using USEPA Method 8270D-SIM modified for analysis of all 209 PCB congeners. The laboratories reported all required sample and quality control data associated with these samples. The laboratory quality control results for method blanks, laboratory control samples, and sample surrogates were all found acceptable, and demonstrate that sample analysis procedures were in compliance and had produced usable data for project purposes. Laboratory data results are in Appendix C. Laboratory data validation reports are in Appendix D.

3.5 SAMPLING RESULTS

This section presents the results of the most current (Year Three) bioaccumulation sampling, conducted in 2020, to evaluate PCB bioaccumulation and porewater concentrations, and to compare these data to baseline conditions documented in 2016, before *in situ* treatment of sediment via the addition of activated carbon amendments, and to the Year One (2018) monitoring results.

Samples were collected as specified in Sections 3.1, 3.2, and 3.3. Bulk sediment and tissue samples were analyzed for total PCB congeners by USEPA Method 1668C, and sediment porewater and surface water from passive samplers were analyzed by modified method 8270D-SIM. Sediment samples were collected in duplicate from the homogenized bulk sediment for analysis. The collection of replicates for bioaccumulation testing and for porewater sampling provides multiple tests to more accurately quantify PCB bioavailability in site sediment.

3.5.1 Sediment Sampling Results

Results for bulk sediment samples are provided in Tables 3-5 and 3-6. Average PCB concentrations (of the original and duplicate samples) in bulk sediment range from 282 µg/kg (SD-301) to 1,700 µg/kg (SD-303).

Results for total organic carbon and black carbon for Year Three (2020) only are provided in Table 3-7, and on Figure 3-3 (baseline), Figure 3-4a (Year One [2018]), and Figure 3-4b (Year Three). The total organic carbon content in the core sediment-sampling intervals collected in 2020 ranges from 1.13% to 14.5%, while black-carbon content ranges from less than 0.01% to 1.52%.

3.5.2 Bioaccumulation Tissue Results

Tissue samples were collected from the laboratory 28-day bioaccumulation test for analysis of PCB congeners by USEPA Method 1668C and lipid content. The lipid-normalized PCB results are adjusted by dividing the PCB concentrations by the reported lipid content to provide PCB concentrations per gram of lipid. Lipid-normalized concentrations provide means to compare results if the PCB uptake is driven by test organism lipid content. Overall lipid content ranged from 0.4% to 1.4% (see Table 3-8).

Total PCB concentrations in individual tissue samples collected in 2020 ranged from 0.00159 micrograms per gram ($\mu\text{g/g}$) to 0.0162 $\mu\text{g/g}$ wet weight. Figures 3-5 and 3-6 compare baseline (2016), Year One (2018), and Year Three (2020) wet weight- and lipid-normalized (respectively) bioaccumulation tissue concentrations. The control samples (those not exposed to contaminated sediment) had wet weight PCB concentrations of 0.00216 $\mu\text{g/g}$ and 0.00229 $\mu\text{g/g}$. Benthic tissue sample results for Year Three (2020) are in Table 3-9.

3.5.3 Porewater and Surface-Water Sampling Results

Dissolved PCB concentrations in sediment porewater were determined from the PE sampler results using PRC recoveries. PRC recoveries indicate the degree to which the samplers equilibrated with the sediment porewater during the 28-day deployment, and are based on the relationship between porewater, the sampling medium, and the partition coefficient for each congener. Porewater concentrations for PCB congeners account for the fraction of equilibrium achieved and are estimated by correcting the sampler concentration and the state of equilibrium for each congener.

The water-PE exchange rate for PCB congeners is calculated based on the fraction of PRCs retained on the sampler, the length of exposure (28 days), and the PE-water partition coefficient for each PCB congener. The PE-water exchange rates are used to determine the exchange rate for each individual PCB congener by conducting a regression of equilibrium state to the congener partition coefficient. The exchange rates are then used to determine the contaminant concentrations in sediment porewater and overlying water, as shown in the equation below:

$$C_w = (C_{pe}/(1-Fr))/K_{pew} \text{ (ng/L)}$$

where:

C_w = dissolved concentration in the porewater (nanograms per liter [ng/L])

C_{pe} = concentration in the PE sampler (nanograms per kilogram [ng/kg])

K_{pew} = polyethylene/water partition coefficient (kilograms per liter)

Fr = fraction retained

Year Three (2020) total dissolved PCB concentrations from individual samples collected at *in situ* sediment porewater monitoring locations range from 0.219 ng/L to 0.452 ng/L. Dissolved total PCB concentrations in near-sediment surface water samples range from 0.304 ng/L to 0.389 ng/L. PCB results for *in situ* porewater and near-sediment surface water samples are summarized in Table 3-10 and Figure 3-7. PCB results measured in the sediment porewater of study beakers (i.e., *ex situ*) during the bioaccumulation study ranged from 0.025 ng/L to 0.334 ng/L for the individual test setups; these results are summarized in Table 3-11 and Figure 3-8.

Table 3-12 contains average sediment porewater and near sediment surface water PCB concentrations measured at baseline (2016), Year One (2018), and Year Three (2020), and Table 3-13 includes average *ex situ* bioaccumulation test porewater PCB concentrations measured at baseline (2016), Year One (2018), and Year Three (2020). As shown in these tables, site-wide average PCB concentrations in *in situ* porewater (25.6 ng/L at baseline, 0.89 ng/L in 2018, and 0.37 ng/L in 2020) are similar to those detected in the *ex situ* bioaccumulation study (25.2 ng/L at baseline, 0.77 ng/L in 2018, and 0.13 ng/L in 2020). Average concentrations for total PCBs in surface water samples collected from near the sediment at the monitoring locations in Dark Head Cove went from 14.5 ng/L at baseline to 4.1 ng/L at Year One and 0.344 ng/L at Year Three. Tables 3-12 and 3-13 also show that significant reductions in average PCB concentrations have occurred from baseline (2016) conditions.

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SECTION 4 SUMMARY

4.1 OVERVIEW

Activated carbon was applied to the surface sediment across 13.7 acres of Dark Head Cove in 2017. In October 2020, sediment and sediment porewater samples were collected to assess the effectiveness of this *in situ* sediment treatment three years after application. In 2016, before activated carbon was applied to Dark Head Cove, baseline sampling for benthic organism bioaccumulation of polychlorinated biphenyls (PCBs) and measurement of sediment porewater PCB concentrations were completed (Tetra Tech, 2017). This section presents the evaluation of the third year (Year Three, 2020) data, as compared to the baseline (2016) and the Year One (2018) data and assesses the effectiveness of the *in situ* treatment.

4.2 COMPARISON BASELINE TO YEAR THREE

As shown in Table 4-1, location-specific average PCB concentrations (i.e., the average of the original and duplicate samples at each monitoring station) in bulk sediment samples in 2020 ranged from 0.27 milligram per kilogram (mg/kg) to 1.7 mg/kg, with an overall site average of 0.824 mg/kg. The relative percent differences (RPDs) between paired (original and duplicate) concentrations in 2020 (Year Three) in four of five pairs are less than 10% (locations 302, 303, 304, 305), while the one remaining set of duplicates (at location 301) had an RPD of 189% (see Table 4-1). The high variability at this site was attributed to matrix variability. Bulk sediment concentrations in Year One and Year Three are reduced at all five monitoring locations due to the addition of aggregate from the *in situ* amendment.

Significant reductions in average PCB concentrations in bioaccumulation tissues and sediment porewater have occurred from baseline (2016) conditions to Year Three (2020).

- Average total PCB concentration in *in situ* porewater went from 25.6 nanograms per liter (ng/L) at baseline to 0.373 ng/L in 2020 (see Table 3-12).

-
- Average concentrations for surface water samples collected approximately 1 foot above the sediment at the monitoring locations went from 14.5 ng/L at baseline to 4.1 ng/L at Year One and 0.344 ng/L at Year Three.
 - Average concentrations in sediment porewater during bioaccumulation testing also reduced from baseline (25.2 ng/L) to 2020 (0.128 ng/L).

Overall percent reductions in concentrations in Year Three (2020), as compared to baseline (2016), are approximately 98.5% for *in situ* porewater (range of 96.5% to 99.5%), 99.5% for *ex situ* bioaccumulation study porewater (range of 98.7% to 99.8%; see Table 3-13), and approximately 97.5% for surface water (range of 97.0% to 98.5%; see Table 3-12).

Table 4-2 compares 28-day bioaccumulation test results at baseline (2016) to those obtained at Year Three (2020). Across the five locations, the overall average PCB concentration in benthic tissue samples in Year Three (2020) samples is 0.0052 microgram per gram ($\mu\text{g/g}$) wet weight, while the baseline concentration (2016) was 0.429 $\mu\text{g/g}$ wet weight. This represents an average reduction of 98.7% (Table 4-2) on a wet weight basis from 2016 to 2020, with reductions at individual monitoring stations ranging from 93.9% to 99.6%. Likewise, the overall average PCB concentrations in 2020, normalized to lipid content, is 0.665 nanograms per gram (ng/g lipid), as compared to the baseline (2016) average of 111 ng/g, representing an overall reduction of 99.4% (individual station ranges between 98.6% and 99.8%).

Table 4-3 includes average biota-sediment accumulation factors (BSAFs) calculated for each sampling location. These accumulation factors can be used to estimate the potential for uptake of contaminants from sediment to biota. The biota-sediment accumulation factor is calculated by dividing the tissue concentration per weight lipid by the sediment concentration per weight organic carbon. Baseline (2016) values range from 1.27 to 2.14, with an average of 1.65 across the site, while Year Three (2020) values range from 0.0132 to 0.158, with an average of 0.0645 across the site. At Year One (2018), the BSAF values ranged from 0.082 to 0.317. The average percent reduction in the biota-sediment accumulation factor for Year Three, relative to baseline data, is 96.1%, with a range from 92.6% to 99.2% (Table 4-3).

4.3 DISCUSSION OF TRENDS

A comparison of Year Three (2020) to baseline (2016) monitoring data shows that *in situ* treatment of Dark Head Cove sediment is effectively reducing PCB concentrations in sediment porewater and in bioaccumulation tissue. As stated earlier, PCB concentrations have reduced by approximately 98.5% from baseline, in both *in situ* sediment porewater and bioaccumulation test *ex situ* porewater. Concentrations in bioaccumulation tissue have also markedly reduced (99%) from baseline. Reductions in tissue and pore water concentrations at Year Three are consistent and on average greater than observed at Year One demonstrating stability and potential continued effectiveness of the *in situ* sediment remedy. The remediation goal established for sediment porewater was an 80% reduction, while the remediation goal for invertebrate tissue was 70%. The reduction in the overall biota-sediment accumulation factor calculated for invertebrates is 96.1% (see Table 4-3). Therefore, remediation goals for both invertebrate bioaccumulation and sediment porewater (via *in situ* treatment with activated carbon) have been met based on the results of the most recent Year Three (2020) monitoring.

On August 29, 2016, the United States Environmental Protection Agency (USEPA) provided a conditional approval for the *in situ* treatment of PCB-contaminated sediment in Dark Head Cove for the Middle River Complex (USEPA, 2016). The Risk-Based Disposal Approval Application (RBDAA) established a goal for the *in situ* sediment treatment with activated carbon to reduce the bioavailability of PCBs in sediment to benthic organisms by at least 70% as measured in worm tissue and 80% as measured in pore water within five years after application. If monitoring results indicate that the *in situ* treatment has approximately achieved the goals of 70% reduction in bioaccumulation in benthic tissue and 80% in the pore water concentrations based on a weight of evidence, the *in situ* treatment's effectiveness will have been confirmed and the USEPA will be notified that the remedy is complete. Monitoring results in Year Three (2020) for the *in situ* sediment treatment demonstrate that the *in situ* sediment treatment has met the goals for reducing PCB bioavailability to benthic organisms, and the *in situ* sediment treatment remedy is complete. Based on the achievement of the *in situ* treatment goals, as demonstrated by Year Three (2020) results, Lockheed Martin requests that the USEPA's conditional approval for the RBDAA submitted on June 16, 2016 be converted to a final approval by USEPA.

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FIGURES

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Figure 1-1 Middle River Complex Location Map

Figure 3-1 *In Situ* Bioaccumulation Sampling Locations

Figure 3-2 Passive Porewater Sampler, Pre- and Post-Deployment

Figure 3-3 Baseline Data—Total Organic Carbon, % Dry Weight (% dry wt)

Figure 3-4a Year One Data—Total Organic Carbon, % Dry Weight (% dry wt)

Figure 3-4b Year Three Data—Total Organic Carbon, % Dry Weight (% dry wt)

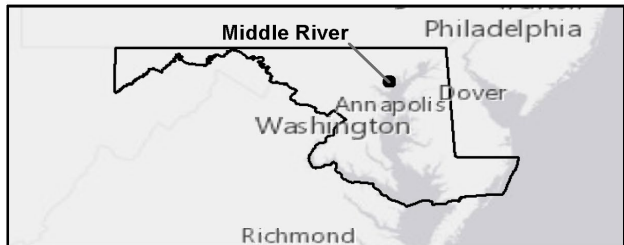
Figure 3-5 Bioaccumulation Tissue Concentrations—Total PCBs Wet Weight


Figure 3-6 Bioaccumulation Tissue—Total PCBs Lipids

Figure 3-7 *In Situ* Porewater and Surface Water—Total PCBs

Figure 3-8 *Ex Situ* Porewater—Total PCBs

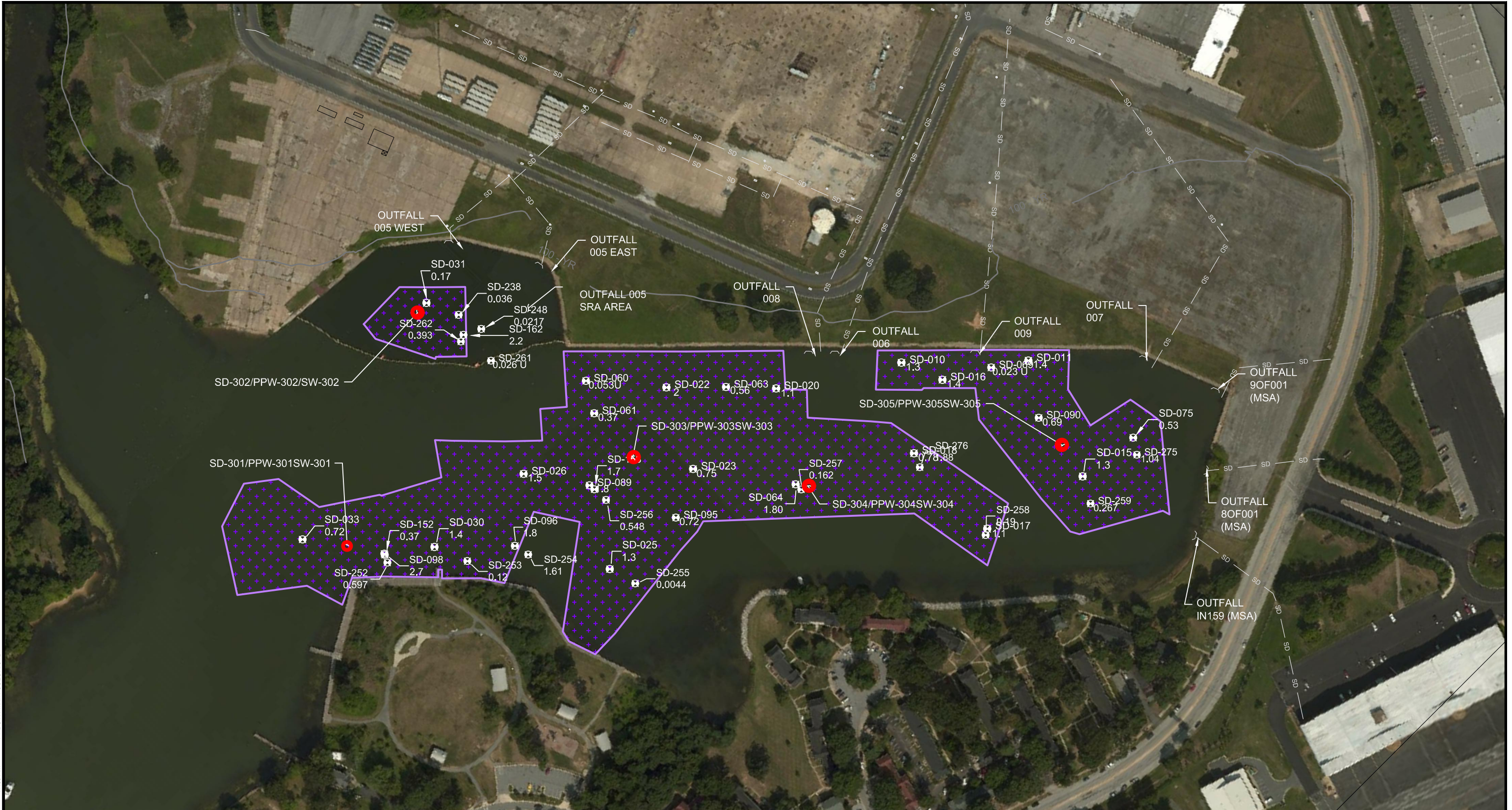
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| | | |
|---|---|--------------------|
| FIGURE 1-1 MIDDLE RIVER COMPLEX LOCATION MAP | | |
| Lockheed Martin Middle River Complex Middle River, Maryland | | |
| DATE: 5/29/2019 |  TETRA TECH | DRAFTED BY: MJW |

Document Path: R:\PROJECTS\MIDDLE_RIVER_8811\MIDDLE_RIVER_LOCATION_MAP_20190528.mxd

Z:\PROJECTS\LOCKHEED - MIDDLE RIVER COMPLEX\FULL REMEDY FIGURES\CDM\FIGURE 3-1 BIOACCUMULATION MONITORING SAMPLE LOCATIONS - DHC.DWG
 PLOT DETAILS: REISTER, CAMERON June 6, 2019 11:33 AM TT-BOTH-MAIN-COLOR.CTB



- LEGEND:**
- STORM DRAIN OUTFALL
 - ▨ *IN SITU* TREATMENT AREA
 - SD- STORM DRAIN SYSTEM
 - BIOACCUMULATION MONITORING STATION
 - ⊕ SAMPLE ID PCB DATA (PPM)



LOCKHEED MARTIN MIDDLE RIVER COMPLEX
 MIDDLE RIVER, MD

FIGURE 3-1
IN SITU BIOACCUMULATION SAMPLE LOCATIONS

Figure 3-2 Passive Porewater Sampler, Pre- and Post-Deployment

**Passive sediment-samplers
pre-deployment**



**Recovered passive sediment
porewater samplers**



Figure 3-3 Baseline Data—Total Organic Carbon, % Dry Weight (% dry wt)

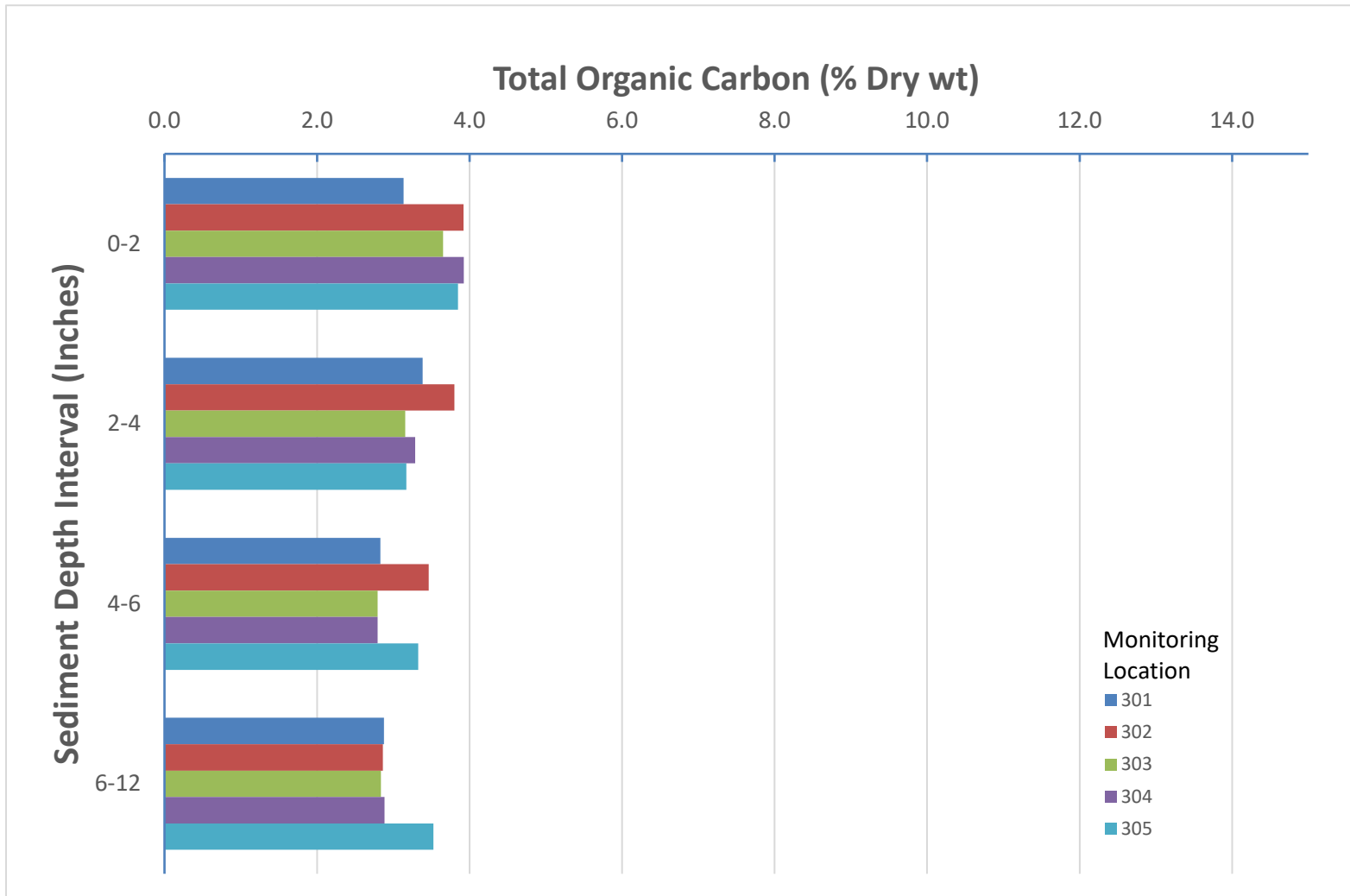


Figure 3-4a Year One Data—Total Organic Carbon, % Dry Weight (% dry wt)

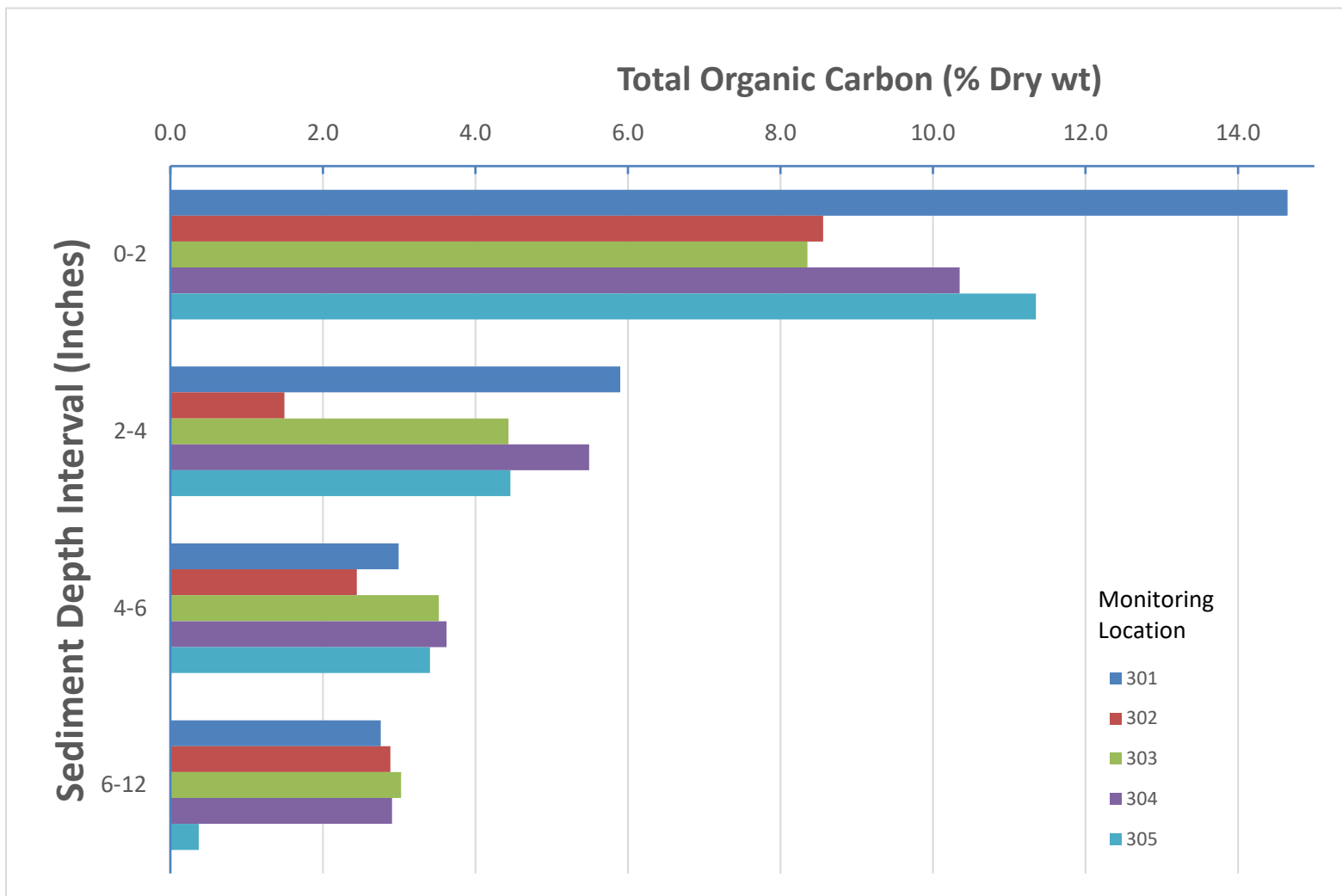


Figure 3-4b Year Three Data—Total Organic Carbon, % Dry Weight (% dry wt)

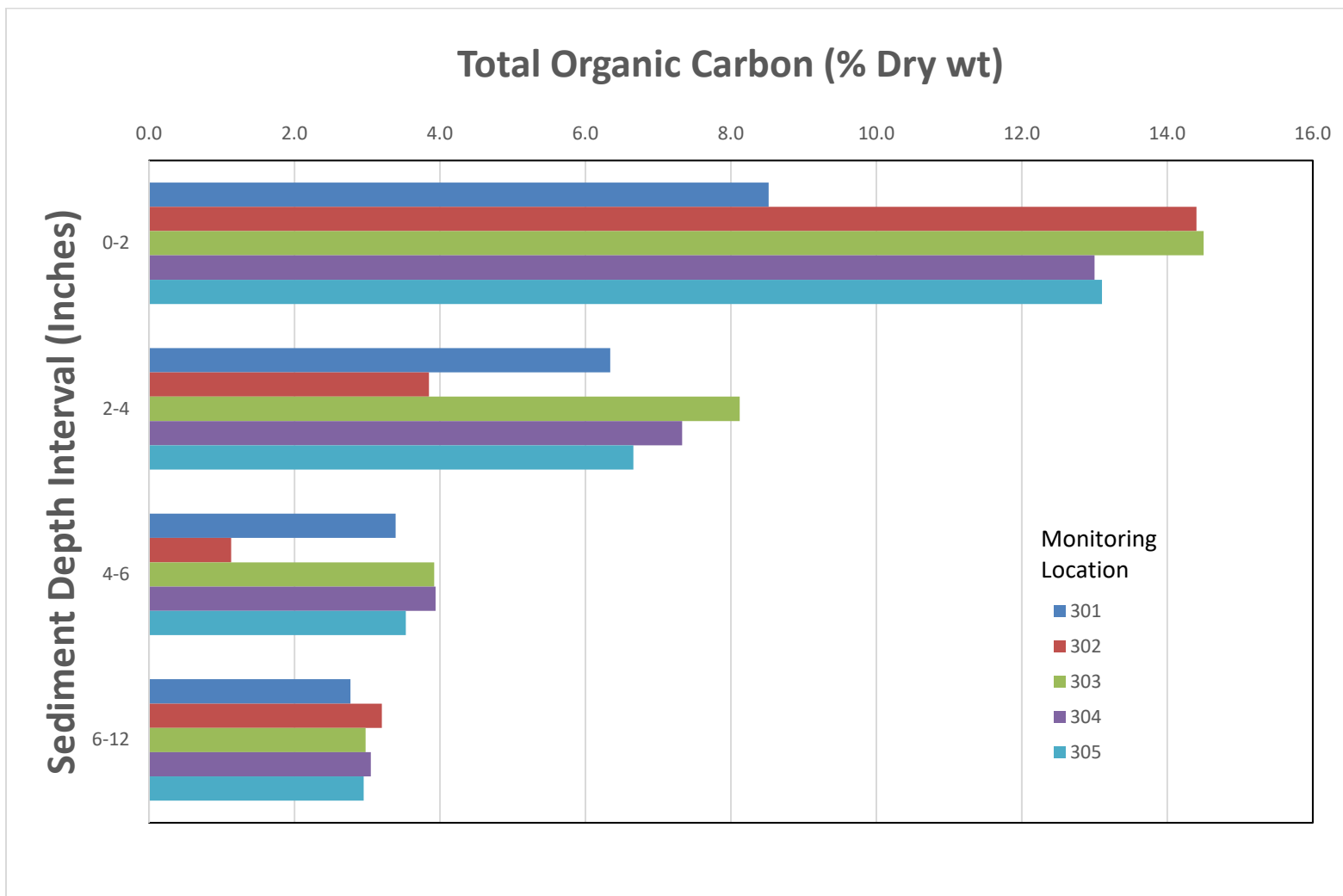
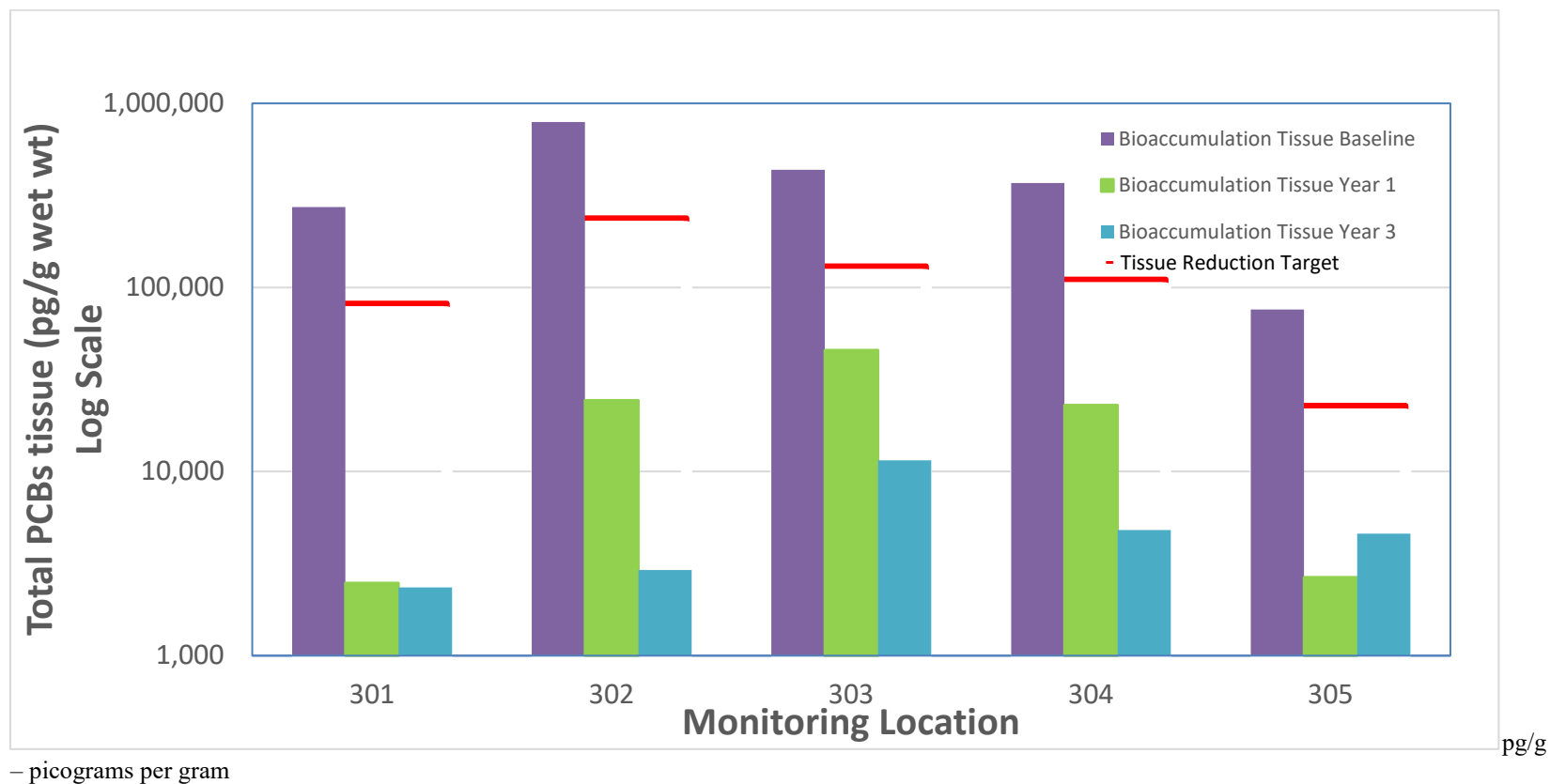
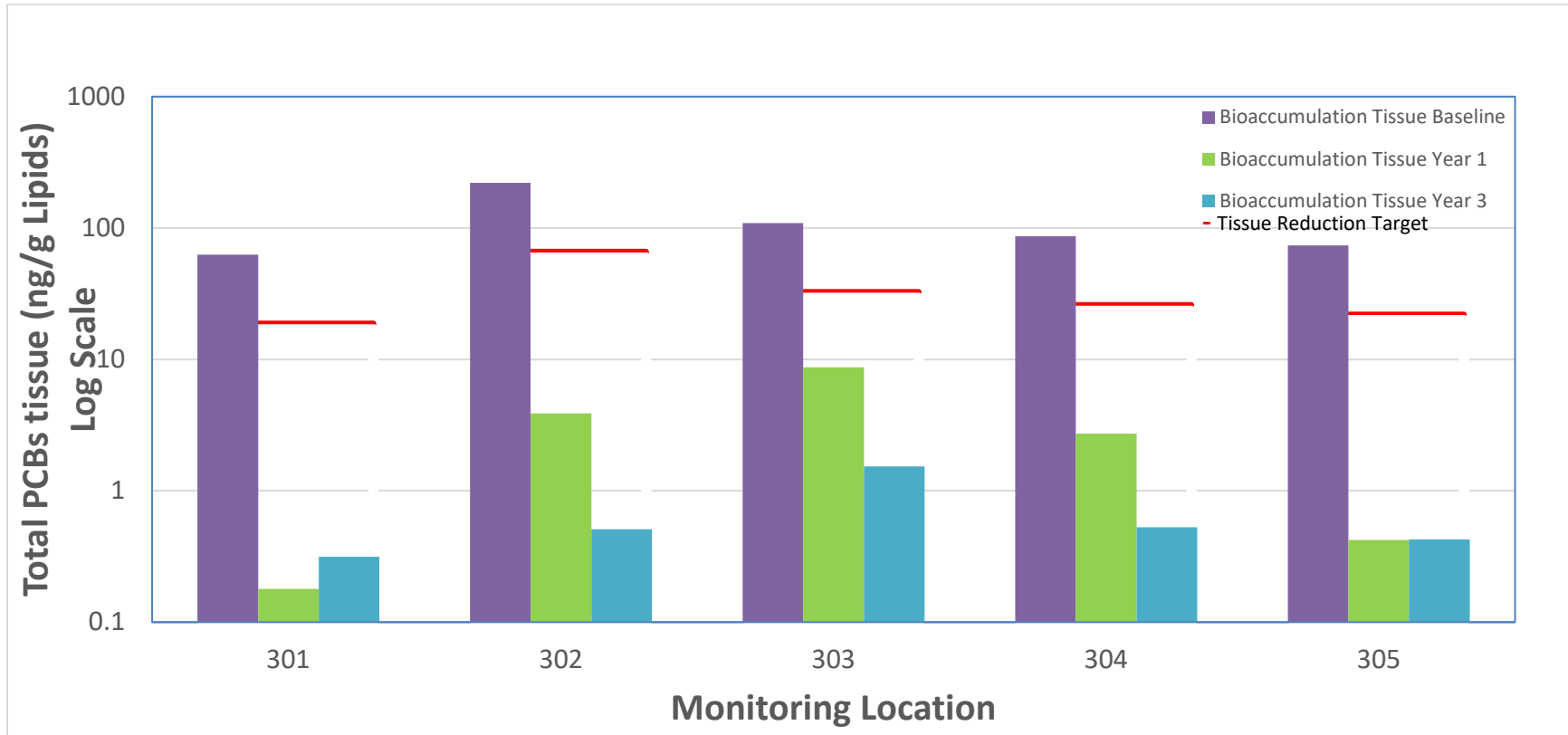


Figure 3-5 Bioaccumulation Tissue Concentrations—Total PCBs Wet Weight



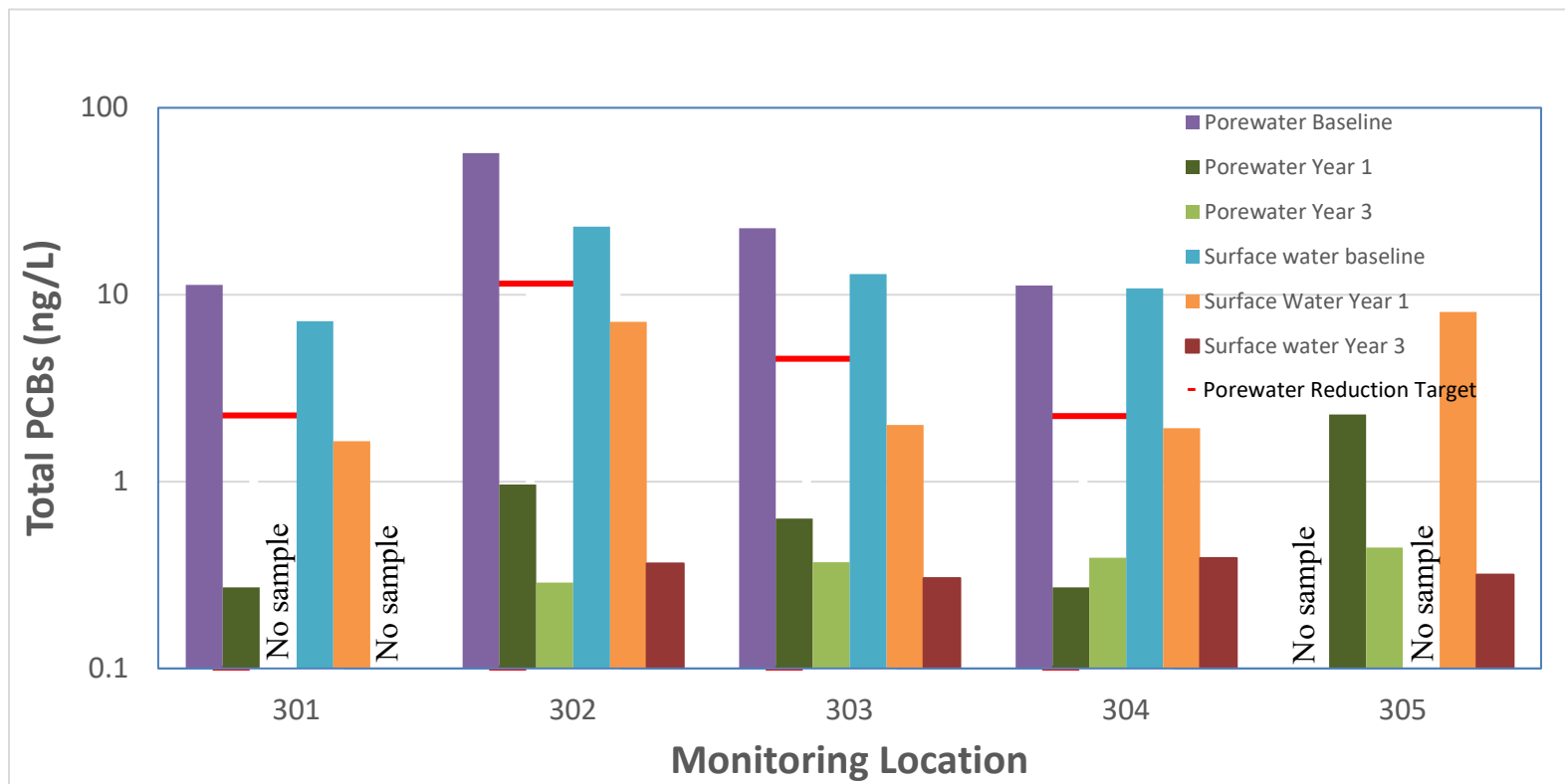
– picograms per gram

Figure 3-6 Bioaccumulation Tissue—Total PCBs Lipids



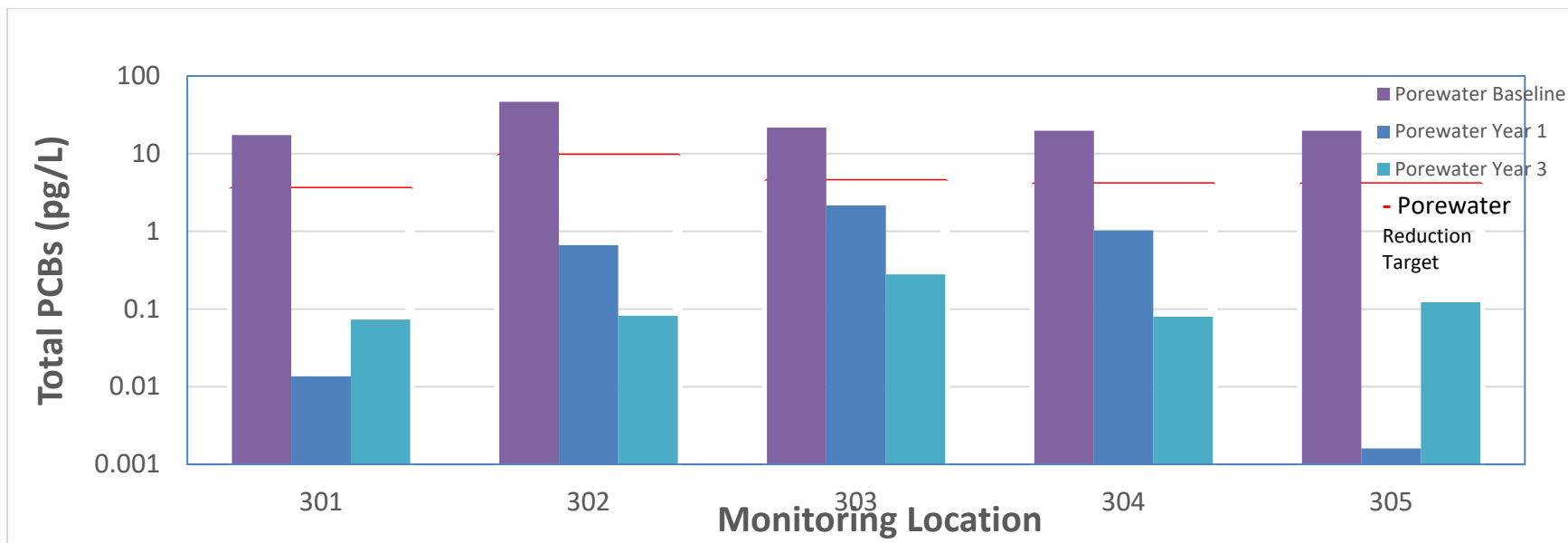
ng/g – nanograms per gram; PCBs – polychlorinated biphenyls

Figure 3-7 In Situ Porewater and Surface Water—Total PCBs



ng/L – nanograms per liter; PCBs – polychlorinated biphenyls

Figure 3-8 Ex Situ Porewater—Total PCBs



ng/L – nanograms per liter; PCBs – polychlorinated biphenyls; pg/L – picogram per liter

TABLES

Table 3-1 Bioaccumulation Sampling Locations and Passive-Sampler Deployment and Retrieval Dates—Dark Head Cove, 2020

Table 3-2 Bioaccumulation and Porewater Sampling and Chemical Analyses—Dark Head Cove, 2020

Table 3-3 Water Quality Measurements—Dark Head Cove, 2020

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Table 3-6 Sediment Total PCB Sample and Duplicate Results—Dark Head Cove, 2020

Table 3-7 Sediment Total Organic Carbon, Black Carbon, Percent Fines and Percent Gravel Results—Dark Head Cove, 2020

Table 3-8 Tissue Lipid Results—Dark Head Cove, 2020

Table 3-9 Benthic Worm Tissue PCB Results, 28-Day Bioaccumulation Test—Dark Head Cove, 2020

Table 3-10 Sediment In situ Porewater and Surface Water PCB Results—Dark Head Cove, 2020

Table 3-11 Sediment Bioaccumulation Test Porewater PCB Results—Dark Head Cove, 2020

Table 3-12 Average Sediment Porewater and Surface Water Concentrations (Measured) at Baseline, Year One, and Year Three—Dark Head Cove

Table 3-13 Average Ex Situ Bioaccumulation Test Porewater Concentrations (Measured) at Baseline, Year One, and Year Three—Dark Head Cove

Table 4-1 Total PCB Concentrations in Sediment at Baseline, Year One, and Year Three—Dark Head Cove

Table 4-2 Total PCB Concentrations in Benthic Tissue at Baseline, Year One, and Year Three—Dark Head Cove

Table 4-3 Baseline, Year One, and Year Three Biota-Sediment Accumulation Factors—Dark Head Cove

Table 3-1
Bioaccumulation-Sampling Locations and Passive-Sampler
Deployment and Retrieval Dates—Dark Head Cove, 2020
Lockheed Martin Middle River Complex, Middle River, Maryland

| Location | Northing | Easting | Deployed | Retrieved | Samples |
|----------|-----------|------------|------------|---|--|
| SD-301 | 604140.93 | 1474027.46 | 10/01/2020 | Sample retrieval line severed (not recovered) | SD-301_BULK_A, SD-301_BULK_B, SD-301_0-2, SD-301_2-4, SD-301_4-6, SD-301_6-12, SD-301_SURFACE, 301-A, 301-B, 301-C, 301-D, 301-E |
| SD-302 | 604611.86 | 1473777.59 | 10/01/2020 | 10/29/2020 | SD-302_BULK_A, SD-302-BULK_B, SD-302_0-2, SD-302_2-4, SD-302_4-6, SD-302_6-12, SD-302_SURFACE, SD-302_PORE(A), SD-302_PORE(B), SD-302_PORE(C), SD_302_Surface 302-A, 302-B, 302-C, 302-D, 302-E |
| SD-303 | 604723.86 | 1474312.22 | 10/01/2020 | 10/29/2020 | SD-303_BULK_A, SD-303_BULK_B, SD-303_0-2, SD-303_2-4, SD-303_4-6, SD-303_6-12, SD-303_SURFACE, SD-303_PORE(A), SD-303_PORE(B), SD-303_PORE(C), SD_303_Surface 303-A, 303-B, 303-C, 303-D, 303-E |
| SD-304 | 604938.88 | 1474630.74 | 10/01/2020 | 10/29/2020 | SD-304_BULK_A, SD-304_BULK_B, SD-304_0-2, SD-304_2-4, SD-304_4-6, SD-304_6-12, SD-304_SURFACE, SD-304_PORE(A), SD-304_PORE(B), SD-304_PORE(C), SD_304_Surface 304-A304-B304-C, 304-D, 304-E |
| SD-305 | 605375.29 | 1474941.46 | 10/01/2020 | 10/29/2020 | SD-305_BULK_A, SD-305_BULK_B, SD-305_0-2, SD-305-2-4, SD-305_4-6, SD-305_6-12, SD-305_SURFACE, SD-305_PORE(A), SD-305_PORE(B), SD-305_PORE(C), SD_305_Surface 305-A, 305-B, 305-C, 305-D, 305-E |

Table 3-2
Bioaccumulation and Porewater Sampling and Chemical Analyses—Dark Head Cove, 2020
Lockheed Martin Middle River Complex, Middle River, Maryland
Page 1 of 2

| Media | Location | Sampling Depth and Collection Method | Sample Analyses and Methods | Rationale/Purpose |
|----------|--|---|--|---|
| Sediment | Dark Head Cove <i>in situ</i> treatment area | Three cores to 18 inches at each of five sampling locations; sediment samples were collected from depth intervals of 0–2 inches, 2–4 inches, 4–6 inches, and 6–12 inches. At each sampling location, the intervals from the three cores were composited to make one sample per sample interval (four samples per sampling location were collected). | Laboratory analyses: TOC by USEPA Lloyd Kahn method (Kahn, 1988); grain size (ASTM D422); and black carbon (Grossman and Ghosh, 2009) | Area(s) with <i>in situ</i> treatment. Collection of bulk sediment samples for characterization to use with the baseline bioaccumulation study and the <i>in situ</i> porewater sampling. |
| Sediment | Dark Head Cove <i>in situ</i> treatment area | Bulk surface-sediment was collected using a petite Ponar grab-sampling device. A minimum of five liters of sediment was collected from each sampling location. | <i>Ex situ</i> bioaccumulation testing according to Tetra Tech SOP TT-BRF/TX-SOP-O-075. Laboratory analyses: PCBs congeners by GC/HRMS (USEPA Method 1668C); TOC by USEPA Lloyd Kahn method; black carbon (Grossman and Ghosh, 2009); grain size (ASTM D422); and moisture content (ASTM D2974-87) | Area(s) with <i>in situ</i> treatment. The bulk sediment samples were homogenized and split for replicate bioaccumulation testing at Tetra Tech’s Owings Mill laboratory. |
| Tissue | Bioaccumulation test laboratory | Collected tissue samples from five bioaccumulation replicate mesocosms from each sampling location. | Laboratory analyses: PCB congeners by GC/HRMS (USEPA Method 1668C) Lipids by Tetra Tech SOP TT-BRF/TX-SOP-O-077 | Benthic worm-tissue from the bioaccumulation mesocosms to determine the amount of PCBs taken up from site sediments. |

ASTM = American Society for Testing and Materials
GC/HRMS = gas chromatograph/high-resolution mass spectrometry
GC/LRMS = gas chromatograph/low-resolution mass spectrometry
PCBs = polychlorinated biphenyls

PPW = passive porewater
SOP = standard operating procedure
TOC = total organic carbon
USEPA = United States Environmental Protection Agency

Table 3-2

Bioaccumulation and Porewater Sampling and Chemical Analyses—Dark Head Cove, 2020

Lockheed Martin Middle River Complex, Middle River, Maryland

Page 2 of 2

| Media | Location | Sampling Depth and Collection Method | Sample Analyses and Methods | Rationales/Purpose |
|---------------|--|--|--|--|
| Porewater | Bioaccumulation test laboratory | One passive sampler placed in the sediments for each of the bioaccumulation mesocosms. | Laboratory analyses: PCB congeners by GC/LRMS (USEPA SW846 Method 8270D-SIM) | Sediment porewater samples from the <i>ex situ</i> bioaccumulation mesocosms to measure the concentration of dissolved PCBs in the laboratory exposures. |
| Porewater | Dark Head Cove <i>in situ</i> treatment area | Three passive samplers were inserted at each of the five locations to approximately 4 inches below the mudline at each sampling location. | Laboratory analyses: PCB congeners by GC/LRMS (USEPA SW846 Method 8270D-SIM) | Area(s) with <i>in situ</i> treatment collocated in areas of the bulk sediment sampling for the sediment characterization and the <i>ex situ</i> laboratory bioaccumulation study. |
| Surface water | Dark Head Cove <i>in situ</i> treatment area | One passive sampler was deployed in the water column at each of the five locations at approximately 1 foot above the sediment mudline at each sampling location. | Laboratory analyses: PCB congeners by GC/LRMS (USEPA SW846 Method 8270D-SIM) | Surface water samplers collocated with the passive sediment samplers to collect dissolved-phase PCBs in the overlying surface water. |

ASTM = American Society for Testing and Materials
 GC/HRMS = gas chromatograph/high-resolution mass spectrometry
 GC/LRMS = gas chromatograph/low-resolution mass spectrometry
 PCBs = polychlorinated biphenyls

PPW = passive porewater
 SOP = standard operating procedure
 TOC = total organic carbon
 USEPA = United States Environmental Protection Agency

Table 3-3
Water Quality Measurements—Dark Head Cove, 2020
Lockheed Martin Middle River Complex, Middle River, Maryland

| Location | Temp (°C) | pH | ORP | Conductivity (ms/cm) | DO (mg/L) | Salinity (ppt) | Turbidity (NTU) |
|----------|-----------|------|-----|----------------------|-----------|----------------|-----------------|
| 301 | 21.4 | 8.13 | 189 | 10.1 | 10.7 | 6.16 | 4.2 |
| 302 | 21.4 | 7.83 | 188 | 10.1 | 8.89 | 6.51 | 4.8 |
| 303 | 21.5 | 7.84 | 189 | 10.4 | 9.43 | 6.40 | 3.9 |
| 304 | 20.9 | 7.89 | 174 | 10.9 | 9.82 | 6.15 | 6.2 |
| 305 | 21.3 | 7.55 | 170 | 10.5 | 8.66 | 6.39 | 4.9 |

°C = degrees Celsius
DO = dissolved oxygen
ORP = oxidation reduction potential
ms/cm= millisiemens per centimeter
mg/L = milligram(s) per liter
NTU = nephelometric turbidity unit
ppt = part(s) per thousand

Table 3-4
Porewater-Sampler Performance Reference-Compounds
Quality Control Results—Dark Head Cove, 2020
Lockheed Martin Middle River Complex, Middle River, Maryland

| Laboratory Preparation Batch | %RSD | | | | |
|------------------------------|-------------|-------------|--------------|--------------|--------------|
| | PCB #28—C13 | PCB #52—C13 | PCB #101—C13 | PCB #153—C13 | PCB #159—C13 |
| 1 | 10.3 % | 11.0 % | 9.0 % | 6.1 % | 3.9 % |

C13 = carbon-13

PCB = polychlorinated biphenyl

%RSD = percent relative standard deviation

Table 3-5
Surface Sediment PCB Results, HRMS---Dark Head Cove 2020

| ANALYTE | SD-301-BULK_A | | SD-301-BULK_B | | SD-302-BULK_A | | SD-302-BULK_B | | SD-303-BULK_A | | SD-303-BULK_B | | SD-304-BULK_A | | SD-304-BULK_B | | SD-305-BULK_A | | SD-305-BULK_B | | |
|-----------------|---------------|----|---------------|----|---------------|----|---------------|----|---------------|----|---------------|----|---------------|----|---------------|----|---------------|----|---------------|----|-------|
| | ng/kg | J | ng/kg | J | ng/kg | J | ng/kg | J | ng/kg | J | ng/kg | J | ng/kg | J | ng/kg | J | ng/kg | J | ng/kg | J | ng/kg |
| PCB-1 | 16.4 | J | 72.5 | J | 120 | J | 118 | J | 148 | J | 131 | J | 30.7 | J | 27.8 | J | 88.9 | J | 85 | J | |
| PCB-2 | 11.2 | J | 77.2 | J | 96.4 | J | 96.8 | J | 148 | J | 131 | J | 20 | J | 21.3 | J | 86.9 | J | 80.5 | J | |
| PCB-3 | 17.8 | J | 125 | J | 174 | J | 172 | J | 282 | J | 257 | J | 31.2 | J | 36.1 | J | 146 | J | 134 | J | |
| PCB-4/10 | 39.4 | J | 223 | J | 361 | J | 372 | J | 349 | J | 294 | J | 67.8 | J | 67.6 | J | 234 | J | 219 | J | |
| PCB-5/8 | 60.4 | J | 507 | J | 706 | J | 723 | J | 1100 | J | 986 | J | 111 | J | 134 | J | 612 | J | 560 | J | |
| PCB-6 | 25.7 | J | 207 | J | 285 | J | 287 | J | 411 | J | 358 | J | 44 | J | 50.9 | J | 230 | J | 214 | J | |
| PCB-7/9 | < 9.96 | UJ | 68.3 | J | 89.5 | J | 93.8 | J | 132 | J | 115 | J | < 9.63 | UJ | 15.4 | J | 75.4 | J | 68.8 | J | |
| PCB-11 | 58 | J | 726 | J | 863 | J | 849 | J | 912 | J | 765 | J | 86.7 | J | 125 | J | 885 | J | 800 | J | |
| PCB-12/13 | 41.6 | J | 556 | J | 729 | J | 700 | J | 1300 | J | 1180 | J | 78.4 | J | 119 | J | 611 | J | 578 | J | |
| PCB-14 | < 4.98 | UJ | < 4.93 | UJ | < 4.96 | UJ | < 4.96 | UJ | < 4.94 | UJ | 7.13 | J | < 4.81 | UJ | < 4.96 | UJ | < 4.93 | UJ | < 4.98 | UJ | |
| PCB-15 | 60.1 | J | 839 | J | 1220 | J | 1180 | J | 1960 | J | 1770 | J | 112 | J | 191 | J | 1020 | J | 948 | J | |
| PCB-16/32 | 246 | J | 2930 | J | 7920 | J | 7900 | J | 10600 | J | 9630 | J | 699 | J | 958 | J | 4300 | J | 4020 | J | |
| PCB-17 | 59.3 | J | 665 | J | 1220 | J | 1200 | J | 1570 | J | 1430 | J | 126 | J | 179 | J | 899 | J | 837 | J | |
| PCB-18 | 73 | J | 812 | J | 1240 | J | 1240 | J | 1580 | J | 1430 | J | 139 | J | 189 | J | 974 | J | 920 | J | |
| PCB-19 | 51.5 | J | 384 | J | 979 | J | 972 | J | 944 | J | 838 | J | 113 | J | 128 | J | 478 | J | 444 | J | |
| PCB-20/21/33 | 77 | J | 1230 | J | 2130 | J | 2080 | J | 2740 | J | 2170 | J | 159 | J | 236 | J | 1370 | J | 1320 | J | |
| PCB-22 | 59.4 | J | 976 | J | 2210 | J | 2160 | J | 2630 | J | 2170 | J | 133 | J | 209 | J | 1050 | J | 1020 | J | |
| PCB-23 | < 4.98 | UJ | < 4.93 | UJ | < 4.96 | UJ | < 4.96 | UJ | < 4.94 | UJ | < 4.90 | UJ | < 4.81 | UJ | < 4.96 | UJ | < 4.93 | UJ | < 4.98 | UJ | |
| PCB-24/27 | 25.5 | J | 292 | J | 615 | J | 596 | J | 679 | J | 606 | J | 51.5 | J | 77.4 | J | 361 | J | 326 | J | |
| PCB-25 | 23.6 | J | 425 | J | 641 | J | 598 | J | 1070 | J | 923 | J | 55.6 | J | 82.9 | J | 477 | J | 477 | J | |
| PCB-26 | 33.4 | J | 595 | J | 842 | J | 784 | J | 1250 | J | 1080 | J | 72.1 | J | 106 | J | 616 | J | 608 | J | |
| PCB-28 | 149 | J | 2730 | J | 4190 | J | 3680 | J | 7070 | J | 5700 | J | 337 | J | 546 | J | 2980 | J | 2830 | J | |
| PCB-29 | < 4.98 | UJ | 8.63 | J | 9.42 | J | 8.83 | J | 13.1 | J | 11.2 | J | < 4.81 | UJ | < 4.96 | UJ | < 4.93 | UJ | < 4.98 | UJ | |
| PCB-30 | < 4.98 | UJ | < 4.93 | UJ | < 4.96 | UJ | < 4.96 | UJ | < 4.94 | UJ | < 4.90 | UJ | < 4.81 | UJ | < 4.96 | UJ | < 4.93 | UJ | < 4.98 | UJ | |
| PCB-31 | 86.7 | J | 1510 | J | 2130 | J | 2260 | J | 3450 | J | 3240 | J | 202 | J | 291 | J | 1780 | J | 1780 | J | |
| PCB-34 | 6.66 | J | 84.1 | J | 182 | J | 179 | J | 267 | J | 218 | J | 17 | J | 23.7 | J | 103 | J | 110 | J | |
| PCB-35 | 10.7 | J | 246 | J | 291 | J | 277 | J | 469 | J | 430 | J | 18 | J | 43.1 | J | 258 | J | 244 | J | |
| PCB-36 | < 4.98 | UJ | 6.88 | J | < 4.96 | UJ | < 4.96 | UJ | 12.7 | J | 12.8 | J | < 4.81 | UJ | < 4.96 | UJ | 13.5 | J | < 4.98 | UJ | |
| PCB-37 | 41.5 | J | 903 | J | 1070 | J | 1040 | J | 1710 | J | 1560 | J | 66.4 | J | 145 | J | 958 | J | 902 | J | |
| PCB-38 | 37.3 | J | 806 | J | 1730 | J | 1780 | J | 2590 | J | 2490 | J | 114 | J | 226 | J | 1230 | J | 1170 | J | |
| PCB-39 | < 4.98 | UJ | 14.9 | J | 17.8 | J | 17.4 | J | 29.1 | J | 29 | J | < 4.81 | UJ | < 4.96 | UJ | 17.9 | J | 17.7 | J | |
| PCB-40 | 5.96 | J | 90.1 | J | < 4.96 | UJ | 96.1 | J | 119 | J | 122 | J | < 4.81 | UJ | < 4.96 | UJ | 102 | J | 94.2 | J | |
| PCB-41/64/71/72 | 149 | J | 3420 | J | 6220 | J | 6350 | J | 9620 | J | 9850 | J | 410 | J | 659 | J | 5030 | J | 4930 | J | |
| PCB-42/59 | < 9.96 | UJ | < 9.87 | UJ | < 9.93 | UJ | < 9.92 | UJ | < 9.87 | UJ | < 9.81 | UJ | < 9.63 | UJ | < 9.91 | UJ | < 9.85 | UJ | < 9.96 | UJ | |
| PCB-43/49 | 1050 | J | 24700 | J | 53100 | J | 54000 | J | 91600 | J | 79700 | J | 3570 | J | 6620 | J | 38800 | J | 36400 | J | |
| PCB-44 | 54.1 | J | 1050 | J | 1200 | J | 1180 | J | 1770 | J | 1610 | J | 106 | J | 173 | J | 1300 | J | 1200 | J | |
| PCB-45 | < 4.98 | UJ | 99.9 | J | 109 | J | 109 | J | 166 | J | 143 | J | 13.2 | J | 17.7 | J | 129 | J | 115 | J | |
| PCB-46 | 23.5 | J | 322 | J | 734 | J | 749 | J | 1010 | J | 934 | J | 66.1 | J | 95.1 | J | 514 | J | 472 | J | |
| PCB-47 | 1610 | J | 42700 | J | 85400 | J | 85300 | J | 143000 | J | 129000 | J | 5410 | J | 10500 | J | 58500 | J | 56600 | J | |
| PCB-48/75 | 30.2 | J | 988 | J | 1450 | J | 1490 | J | 3100 | J | 2940 | J | 113 | J | 220 | J | 1110 | J | 1200 | J | |
| PCB-50 | < 4.98 | UJ | 54.8 | J | 131 | J | 134 | J | 173 | J | 157 | J | < 4.81 | UJ | 17.1 | J | 77 | J | 77.8 | J | |
| PCB-51 | 897 | J | 15400 | J | 47300 | J | 46200 | J | 65900 | J | 59800 | J | 3300 | J | 5630 | J | 26900 | J | 23400 | J | |
| PCB-52/69 | 410 | J | 9350 | J | 16900 | J | 16400 | J | 29900 | J | 26600 | J | 1340 | J | 2350 | J | 15100 | J | 13700 | J | |
| PCB-53 | 757 | J | 12200 | J | 32400 | J | 31200 | J | 43400 | J | 39200 | J | 2500 | J | 4210 | J | 19600 | J | 19600 | J | |
| PCB-54 | 199 | J | 2330 | J | 6820 | J | 6940 | J | 8920 | J | 8060 | J | 634 | J | 847 | J | 3760 | J | 3570 | J | |
| PCB-55 | 6.04 | J | 182 | J | 264 | J | 284 | J | 577 | J | 587 | J | 23.9 | J | 47 | J | 285 | J | 296 | J | |
| PCB-56/60 | 32.6 | J | 764 | J | 841 | J | 836 | J | 1220 | J | 1120 | J | 55.5 | J | 120 | J | 902 | J | 815 | J | |
| PCB-57 | < 4.98 | UJ | 92.2 | J | 184 | J | 176 | J | 292 | J | 293 | J | 9.66 | J | 25.1 | J | 138 | J | 133 | J | |
| PCB-58 | < 4.98 | UJ | 163 | J | 348 | J | 350 | J | 561 | J | 482 | J | < 4.81 | UJ | 46.1 | J | 251 | J | 233 | J | |
| PCB-61/70 | 84.4 | J | 2200 | J | 2750 | J | 2660 | J | 4480 | J | 4010 | J | 177 | J | 381 | J | 3030 | J | 2780 | J | |
| PCB-62 | < 4.98 | UJ | < 4.93 | UJ | < 4.96 | UJ | < 4.96 | UJ | < 4.94 | UJ | < 4.90 | UJ | < 4.81 | UJ | < 4.96 | UJ | < 4.93 | UJ | < 4.98 | UJ | |
| PCB-63 | < 4.98 | UJ | 88.6 | J | 143 | J | 144 | J | 212 | J | 193 | J | < 4.81 | UJ | 17.4 | J | 128 | J | 127 | J | |
| PCB-65 | < 4.98 | UJ | < 4.93 | UJ | < 4.96 | UJ | < 4.96 | UJ | < 4.94 | UJ | < 4.90 | UJ | < 4.81 | UJ | < 4.96 | UJ | < 4.93 | UJ | < 4.98 | UJ | |
| PCB-66/76 | 83.8 | J | 2280 | J | 3430 | J | 3340 | J | 5700 | J | 5150 | J | 201 | J | 435 | J | 3360 | J | 3150 | J | |
| PCB-67 | < 4.98 | UJ | 38.1 | J | 31.7 | J | 31.9 | J | 98.2 | J | 160 | J | < 4.81 | UJ | < 4.96 | UJ | 37.2 | J | 37.9 | J | |
| PCB-68 | 9.94 | J | 322 | J | 543 | J | 574 | J | 1030 | J | 980 | J | 32.3 | J | 63.2 | J | 463 | J | 447 | J | |
| PCB-73 | 42.3 | J | 1020 | J | 2170 | J | 2110 | J | 4000 | J | 3610 | J | 146 | J | 304 | J | 1690 | J | 1640 | J | |
| PCB-74 | 20 | J | 541 | J | 690 | J | 667 | J | 950 | J | 858 | J | 36.9 | J | 87 | J | 636 | J | 630 | J | |
| PCB-77 | 11.5 | J | 392 | J | 438 | J | 437 | J | 725 | J | 626 | J | 21.6 | J | 53.8 | J | 458 | J | 408 | J | |
| PCB-78 | < 4.98 | UJ | < 4.93 | UJ | 12.1 | J | 14.1 | J | 18.3 | J | 16.8 | J | < 4.81 | UJ | < 4.96 | UJ | 14.9 | J | 14.5 | J | |
| PCB-79 | < 4.98 | UJ | 188 | J | 265 | J | 274 | J | 549 | J | 500 | J | 29.7 | J | 43.3 | J | 316 | J | 285 | J | |
| PCB-80 | < 4.98 | UJ | < 4.93 | UJ | < 4.96 | UJ | < 4.96 | UJ | < 4.94 | UJ | < 4.90 | UJ | < 4.81 | UJ | < 4.96 | UJ | < 4.93 | UJ | < 4.98 | UJ | |

Table 3-5
Surface Sediment PCB Results, HRMS---Dark Head Cove 2020

| ANALYTE | SD-301-BULK_A | | SD-301-BULK_B | | SD-302-BULK_A | | SD-302-BULK_B | | SD-303-BULK_A | | SD-303-BULK_B | | SD-304-BULK_A | | SD-304-BULK_B | | SD-305-BULK_A | | SD-305-BULK_B | | |
|-----------------|---------------|----|---------------|----|---------------|----|---------------|----|---------------|----|---------------|----|---------------|----|---------------|----|---------------|----|---------------|----|-------|
| | ng/kg | UJ | ng/kg | UJ | ng/kg | UJ | ng/kg | UJ | ng/kg | UJ | ng/kg | UJ | ng/kg | UJ | ng/kg | UJ | ng/kg | UJ | ng/kg | UJ | ng/kg |
| PCB-81 | < 4.98 | UJ | 11.9 | J | 26.6 | J | 39.2 | J | 40.5 | J | 50.2 | J | < 4.81 | UJ | < 4.96 | UJ | < 4.93 | UJ | 34.9 | J | |
| PCB-82 | 9.42 | J | 243 | J | 263 | J | 259 | J | 409 | J | 377 | J | < 4.81 | UJ | 43.8 | J | 351 | J | 328 | J | |
| PCB-83 | < 4.98 | UJ | < 4.93 | UJ | < 4.96 | UJ | < 4.96 | UJ | < 4.94 | UJ | < 4.90 | UJ | < 4.81 | UJ | < 4.96 | UJ | < 4.93 | UJ | < 4.98 | UJ | |
| PCB-84/92 | 118 | J | 3860 | J | 5930 | J | 5990 | J | 10900 | J | 9930 | J | 404 | J | 1100 | J | 7720 | J | 6970 | J | |
| PCB-85/116 | < 9.96 | UJ | 467 | J | 552 | J | 547 | J | 927 | J | 818 | J | < 9.63 | UJ | 86.7 | J | 692 | J | 643 | J | |
| PCB-86 | < 4.98 | UJ | < 4.93 | UJ | < 4.96 | UJ | < 4.96 | UJ | < 4.94 | UJ | < 4.90 | UJ | < 4.81 | UJ | < 4.96 | UJ | < 4.93 | UJ | < 4.98 | UJ | |
| PCB-87/117/125 | 50.3 | J | 1680 | J | 2440 | J | 2540 | J | 3650 | J | 3220 | J | 160 | J | 497 | J | 2490 | J | 2250 | J | |
| PCB-88/91 | 205 | J | 6100 | J | 9310 | J | 10000 | J | 25700 | J | 24100 | J | 1040 | J | 1900 | J | 12600 | J | 11400 | J | |
| PCB-89 | < 4.98 | UJ | 29.1 | J | 38.3 | J | 32.9 | J | 46 | J | 44.9 | J | < 4.81 | UJ | 6.52 | J | 33.1 | J | < 4.98 | UJ | |
| PCB-90/101 | 450 | J | 16500 | J | 26400 | J | 26700 | J | 49400 | J | 44800 | J | 1990 | J | 5910 | J | 30000 | J | 27200 | J | |
| PCB-93 | < 4.98 | UJ | < 4.93 | UJ | < 4.96 | UJ | < 4.96 | UJ | < 4.94 | UJ | < 4.90 | UJ | < 4.81 | UJ | < 4.96 | UJ | < 4.93 | UJ | < 4.98 | UJ | |
| PCB-94 | 20.1 | J | 615 | J | 1380 | J | 1550 | J | 2040 | J | 1900 | J | 89 | J | 169 | J | 1300 | J | 1240 | J | |
| PCB-95/98/102 | 388 | J | 10800 | J | 17300 | J | 17900 | J | 31600 | J | 29700 | J | 1410 | J | 3180 | J | 19800 | J | 17900 | J | |
| PCB-96 | < 4.98 | UJ | 245 | J | < 4.96 | UJ | < 4.96 | UJ | 1070 | J | 1010 | J | 51.4 | J | < 4.96 | UJ | 541 | J | 530 | J | |
| PCB-97 | 28.4 | J | 890 | J | 1100 | J | 1110 | J | 1910 | J | 1680 | J | 81.1 | J | 220 | J | 1370 | J | 1250 | J | |
| PCB-99 | 198 | J | 8030 | J | 12700 | J | 13000 | J | 31100 | J | 28100 | J | 1490 | J | 2170 | J | 16600 | J | 15200 | J | |
| PCB-100 | 188 | J | 6850 | J | 13700 | J | 14600 | J | 31100 | J | 28500 | J | 1120 | J | 2540 | J | 12700 | J | 12000 | J | |
| PCB-103 | 85.3 | J | 3110 | J | 6110 | J | 6250 | J | 12900 | J | 11600 | J | 448 | J | 1030 | J | 6070 | J | 5830 | J | |
| PCB-104 | 30.7 | J | 837 | J | 1920 | J | 1950 | J | 3710 | J | 3340 | J | 133 | J | 277 | J | 1370 | J | 1350 | J | |
| PCB-105 | 41.9 | J | 1670 | J | 2130 | J | 2130 | J | 3260 | J | 2870 | J | 117 | J | 437 | J | 2530 | J | 2180 | J | |
| PCB-106/118 | 141 | J | 5850 | J | 7980 | J | 7790 | J | 13300 | J | 12100 | J | 491 | J | 1890 | J | 9100 | J | 8100 | J | |
| PCB-107/109 | 14.6 | J | 624 | J | 811 | J | 1580 | J | 1580 | J | 1490 | J | 91.1 | J | 141 | J | 1120 | J | 1010 | J | |
| PCB-108/112 | < 9.96 | UJ | 157 | J | 186 | J | 191 | J | 306 | J | 282 | J | 15.7 | J | 33.5 | J | 246 | J | 244 | J | |
| PCB-110 | 253 | J | 8460 | J | 11500 | J | 11700 | J | 24100 | J | 22800 | J | 832 | J | 2600 | J | 14100 | J | 12900 | J | |
| PCB-111/115 | < 9.96 | UJ | 49.7 | J | 59.3 | J | 75 | J | 155 | J | 124 | J | < 9.63 | UJ | < 9.91 | UJ | 129 | J | 89.2 | J | |
| PCB-113 | < 4.98 | UJ | 58.9 | J | 146 | J | < 4.96 | UJ | 250 | J | 680 | J | 12.5 | J | 24.7 | J | 232 | J | 152 | J | |
| PCB-114 | < 4.98 | UJ | 60.7 | J | 61.8 | J | 89.4 | J | 196 | J | 90.2 | J | < 4.81 | UJ | 12.6 | J | 73.8 | J | 55.1 | J | |
| PCB-119 | 45.1 | J | 1850 | J | 3280 | J | 3410 | J | 7710 | J | 7050 | J | 318 | J | 549 | J | 3720 | J | 3490 | J | |
| PCB-120 | < 4.98 | UJ | 168 | J | 226 | J | 223 | J | 440 | J | 443 | J | 33.8 | J | 55.5 | J | 268 | J | 293 | J | |
| PCB-121 | < 4.98 | UJ | 119 | J | 265 | J | 228 | J | 529 | J | 555 | J | 21.6 | J | 40.6 | J | 181 | J | 243 | J | |
| PCB-122 | < 4.98 | UJ | 43.2 | J | 47.5 | J | 55.6 | J | 76.1 | J | 84.4 | J | < 4.81 | UJ | 8.73 | J | 71.2 | J | 61.9 | J | |
| PCB-123 | < 4.98 | UJ | 58.6 | J | 73.3 | J | 75 | J | 153 | J | 128 | J | 9.73 | J | 12.4 | J | 113 | J | < 4.98 | UJ | |
| PCB-124 | 8.31 | J | 330 | J | 434 | J | 425 | J | 745 | J | 672 | J | 31.2 | J | 132 | J | 505 | J | 451 | J | |
| PCB-126 | < 4.98 | UJ | 79.6 | J | 107 | J | 108 | J | 164 | J | 138 | J | 7.36 | J | 23.6 | J | 132 | J | 122 | J | |
| PCB-127 | < 4.98 | UJ | < 4.93 | UJ | < 4.96 | UJ | < 4.96 | UJ | < 4.94 | UJ | < 4.90 | UJ | < 4.81 | UJ | < 4.96 | UJ | < 4.93 | UJ | < 4.98 | UJ | |
| PCB-128/162 | 49.9 | J | 2170 | J | 3090 | J | 3210 | J | 5700 | J | 4800 | J | 319 | J | 1090 | J | 3790 | J | 3440 | J | |
| PCB-129 | 10.1 | J | 462 | J | 669 | J | 653 | J | 1100 | J | 959 | J | 67.5 | J | 266 | J | 757 | J | 717 | J | |
| PCB-130 | 32.2 | J | 1660 | J | 2360 | J | 2380 | J | 4510 | J | 4340 | J | 293 | J | 770 | J | 2850 | J | 2830 | J | |
| PCB-131/133 | 18.2 | J | 1060 | J | 1520 | J | 1560 | J | 3480 | J | 3240 | J | 229 | J | 438 | J | 2050 | J | 1890 | J | |
| PCB-132/161 | 166 | J | 6720 | J | 10400 | J | 10500 | J | 19300 | J | 16300 | J | 756 | J | 4070 | J | 13000 | J | 10900 | J | |
| PCB-134/143 | 31.5 | J | 1300 | J | 2010 | J | 2020 | J | 3450 | J | 3220 | J | 171 | J | 719 | J | 2310 | J | 2050 | J | |
| PCB-135 | 86.6 | J | 4100 | J | 5840 | J | 6080 | J | 12400 | J | 10600 | J | 539 | J | 2150 | J | 7610 | J | 6880 | J | |
| PCB-136 | 158 | J | 5930 | J | 8640 | J | 8620 | J | 18700 | J | 16500 | J | 805 | J | 2940 | J | 10500 | J | 9630 | J | |
| PCB-137 | 6.51 | J | 261 | J | 517 | J | 559 | J | 916 | J | 790 | J | 372 | J | 104 | J | 611 | J | 464 | J | |
| PCB-138/163/164 | 594 | J | 29000 | J | 44600 | J | 44200 | J | 78200 | J | 73900 | J | 5900 | J | 17900 | J | 50500 | J | 45600 | J | |
| PCB-139/149 | 664 | J | 31300 | J | 51600 | J | 50300 | J | 104000 | J | 90400 | J | 4810 | J | 16600 | J | 57400 | J | 50100 | J | |
| PCB-140 | < 4.98 | UJ | 314 | J | 432 | J | 434 | J | 1330 | J | 1180 | J | 132 | J | 94.6 | J | 760 | J | < 4.98 | UJ | |
| PCB-141 | 135 | J | 6850 | J | 11100 | J | 11500 | J | 18000 | J | 16100 | J | 1340 | J | 5250 | J | 11900 | J | 10800 | J | |
| PCB-142 | < 4.98 | UJ | < 4.93 | UJ | < 4.96 | UJ | < 4.96 | UJ | < 4.94 | UJ | < 4.90 | UJ | < 4.81 | UJ | < 4.96 | UJ | < 4.93 | UJ | < 4.98 | UJ | |
| PCB-144 | < 4.98 | UJ | 1680 | J | 2500 | J | 2370 | J | 3930 | J | 3690 | J | 231 | J | 1140 | J | 2310 | J | 2350 | J | |
| PCB-145 | < 4.98 | UJ | < 4.93 | UJ | < 4.96 | UJ | < 4.96 | UJ | 5.25 | J | < 4.90 | UJ | < 4.81 | UJ | < 4.96 | UJ | < 4.93 | UJ | < 4.98 | UJ | |
| PCB-146/165 | 118 | J | 7130 | J | 10300 | J | 10500 | J | 23100 | J | 20900 | J | 1650 | J | 3290 | J | 13900 | J | 12600 | J | |
| PCB-147 | 29.7 | J | 1620 | J | 2520 | J | 2650 | J | 6440 | J | 5490 | J | 1190 | J | 514 | J | 2980 | J | 2900 | J | |
| PCB-148 | < 4.98 | UJ | 212 | J | 342 | J | 387 | J | 921 | J | 875 | J | 112 | J | 63.1 | J | 553 | J | 498 | J | |
| PCB-150 | 11.9 | J | 524 | J | 778 | J | 784 | J | 2550 | J | 2290 | J | 174 | J | 181 | J | 1070 | J | 1010 | J | |
| PCB-151 | 215 | J | 10200 | J | 14800 | J | 15300 | J | 29700 | J | 25600 | J | 1310 | J | 5940 | J | 16600 | J | 15900 | J | |
| PCB-152 | < 4.98 | UJ | 112 | J | 232 | J | 262 | J | 423 | J | 368 | J | 75.6 | J | 33.8 | J | 229 | J | 221 | J | |
| PCB-153 | 722 | J | 42500 | J | 66900 | J | 71400 | J | 127000 | J | 118000 | J | 11900 | J | 23100 | J | 74000 | J | 69900 | J | |
| PCB-154 | 36.2 | J | 2260 | J | 3370 | J | 3370 | J | 10500 | J | 9080 | J | 1130 | J | 683 | J | 4660 | J | 4490 | J | |
| PCB-155 | < 4.98 | UJ | 123 | J | 219 | J | 216 | J | 550 | J | 486 | J | 35.2 | J | 36.9 | J | 205 | J | 201 | J | |
| PCB-156 | 39.3 | J | 2100 | J | 3160 | J | 3290 | J | 5700 | J | 5040 | J | 913 | J | 1320 | J | 3630 | J | 3220 | J | |
| PCB-157 | < 4.98 | UJ | 248 | J | 343 | J | 354 | J | 603 | J | 528 | J | 56 | J | 98.7 | J | 429 | J | 374 | J | |

**Table 3-5
Surface Sediment PCB Results, HRMS---Dark Head Cove 2020**

| ANALYTE | SD-301-BULK_A | | SD-301-BULK_B | | SD-302-BULK_A | | SD-302-BULK_B | | SD-303-BULK_A | | SD-303-BULK_B | | SD-304-BULK_A | | SD-304-BULK_B | | SD-305-BULK_A | | SD-305-BULK_B | |
|------------------|---------------|----------|---------------|----------|---------------|----------|---------------|----------|----------------|----------|----------------|----------|-----------------|----------|-----------------|----------|---------------|----------|---------------|----------|
| | ng/kg | | ng/kg | | ng/kg | | ng/kg | | ng/kg | | ng/kg | | ng/kg | | ng/kg | | ng/kg | | ng/kg | |
| PCB-158/160 | 50.2 | J | 2460 | J | 3920 | J | 3910 | J | 6590 | J | 5750 | J | 602 | J | 1810 | J | 4300 | J | 3910 | J |
| PCB-159 | < 4.98 | UJ | < 4.93 | UJ | < 4.96 | UJ | < 4.96 | UJ | < 4.94 | UJ | < 4.90 | UJ | < 4.81 | UJ | < 4.96 | UJ | < 4.93 | UJ | < 4.98 | UJ |
| PCB-166 | < 4.98 | UJ | < 4.93 | UJ | < 4.96 | UJ | < 4.96 | UJ | < 4.94 | UJ | < 4.90 | UJ | < 4.81 | UJ | 82.9 | J | < 4.93 | UJ | 20.1 | J |
| PCB-167 | < 4.98 | UJ | 943 | J | 1400 | J | 1450 | J | 2580 | J | 2270 | J | 445 | J | 522 | J | 1670 | J | 1490 | J |
| PCB-168 | < 4.98 | UJ | 131 | J | 199 | J | 206 | J | 478 | J | 468 | J | 93.2 | J | 43.6 | J | 254 | J | 242 | J |
| PCB-169 | < 4.98 | UJ | 12.8 | J | 15 | J | < 4.96 | UJ | 25 | J | 18.4 | J | < 4.81 | UJ | < 4.96 | UJ | 23.5 | J | 18.3 | J |
| PCB-170 | 275 | J | 15600 | J | 25200 | J | 27400 | J | 52600 | J | 47600 | J | 17800 | J | 11500 | J | 31000 | J | 29600 | J |
| PCB-171 | 77.4 | J | 4160 | J | 6500 | J | 6680 | J | 14600 | J | 12500 | J | 3790 | J | 3250 | J | 8020 | J | 7140 | J |
| PCB-172 | 36 | J | 2470 | J | 3850 | J | 4000 | J | 8590 | J | 7310 | J | 2950 | J | 1830 | J | 4810 | J | 4280 | J |
| PCB-173 | < 4.98 | UJ | 281 | J | 438 | J | 444 | J | 888 | J | 748 | J | 241 | J | 231 | J | 525 | J | 466 | J |
| PCB-174 | 272 | J | 14400 | J | 23500 | J | 25200 | J | 47100 | J | 44100 | J | 10900 | J | 11800 | J | 28200 | J | 24700 | J |
| PCB-175 | < 4.98 | UJ | 641 | J | 934 | J | 987 | J | 1570 | J | 1690 | J | 564 | J | 443 | J | 904 | J | 998 | J |
| PCB-176 | 38.4 | J | 1980 | J | 3060 | J | 3160 | J | 6710 | J | 6030 | J | 1240 | J | 1480 | J | 3600 | J | 3220 | J |
| PCB-177 | 190 | J | 10700 | J | 16000 | J | 16100 | J | 33900 | J | 31700 | J | 6960 | J | 7320 | J | 19900 | J | 17400 | J |
| PCB-178 | 56.8 | J | 3590 | J | 5340 | J | 5540 | J | 11500 | J | 10300 | J | 2520 | J | 2150 | J | 6400 | J | 5920 | J |
| PCB-179 | 123 | J | 6620 | J | 10100 | J | 10200 | J | 20600 | J | 18700 | J | 3340 | J | 4710 | J | 11600 | J | 10800 | J |
| PCB-180 | 563 | J | 36200 | J | 57100 | J | 64700 | J | 122000 | J | 112000 | J | 46200 | J | 27400 | J | 71600 | J | 62400 | J |
| PCB-181 | < 4.98 | UJ | < 4.93 | UJ | < 4.96 | UJ | < 4.96 | UJ | < 4.94 | UJ | < 4.90 | UJ | 78.3 | J | < 4.96 | UJ | < 4.93 | UJ | 72.2 | J |
| PCB-182/187 | 317 | J | 20100 | J | 30200 | J | 31200 | J | 61900 | J | 60800 | J | 15500 | J | 12600 | J | 35600 | J | 33300 | J |
| PCB-183 | 146 | J | 9050 | J | 13800 | J | 14400 | J | 29300 | J | 27000 | J | 9080 | J | 6510 | J | 15600 | J | 14800 | J |
| PCB-184 | < 4.98 | UJ | 25.4 | J | 35.3 | J | 36.4 | J | 105 | J | 96.7 | J | 15.9 | J | 7.89 | J | 45.8 | J | 45.5 | J |
| PCB-185 | 26.4 | J | 1530 | J | 2360 | J | 2450 | J | 4780 | J | 4080 | J | 1360 | J | 1330 | J | 2910 | J | 2480 | J |
| PCB-186 | < 4.98 | UJ | < 4.93 | UJ | < 4.96 | UJ | < 4.96 | UJ | < 4.94 | UJ | < 4.90 | UJ | < 4.81 | UJ | < 4.96 | UJ | < 4.93 | UJ | < 4.98 | UJ |
| PCB-188 | < 4.98 | UJ | 79 | J | 125 | J | 128 | J | 331 | J | 304 | J | 83.6 | J | 24.3 | J | 145 | J | 143 | J |
| PCB-189 | < 4.98 | UJ | 580 | J | 905 | J | 954 | J | 1960 | J | 1750 | J | 933 | J | 406 | J | 1090 | J | 1010 | J |
| PCB-190 | 48.2 | J | 2990 | J | 4820 | J | 5020 | J | 9440 | J | 7930 | J | 3820 | J | 2330 | J | 5860 | J | 5060 | J |
| PCB-191 | < 4.98 | UJ | 522 | J | 864 | J | 909 | J | 1870 | J | 1640 | J | 735 | J | 450 | J | 1070 | J | 941 | J |
| PCB-192 | < 4.98 | UJ | < 4.93 | UJ | < 4.96 | UJ | < 4.96 | UJ | < 4.94 | UJ | < 4.90 | UJ | < 4.81 | UJ | < 4.96 | UJ | < 4.93 | UJ | < 4.98 | UJ |
| PCB-193 | 26.3 | J | 1680 | J | 2600 | J | 2700 | J | 4730 | J | 4140 | J | 2170 | J | 1270 | J | 3000 | J | 2690 | J |
| PCB-194 | 126 | J | 8150 | J | 13100 | J | 13400 | J | 31100 | J | 28800 | J | 17400 | J | 5560 | J | 16200 | J | 14100 | J |
| PCB-195 | 54.7 | J | 3400 | J | 5290 | J | 5300 | J | 12100 | J | 10800 | J | 6700 | J | 2480 | J | 6560 | J | 5550 | J |
| PCB-196/203 | 129 | J | 7570 | J | 12300 | J | 12700 | J | 29700 | J | 27600 | J | 18500 | J | 6050 | J | 15400 | J | 13600 | J |
| PCB-197 | < 4.98 | UJ | 348 | J | 525 | J | 522 | J | 1430 | J | 1370 | J | 655 | J | 238 | J | 653 | J | 611 | J |
| PCB-198 | < 4.98 | UJ | 303 | J | 501 | J | 692 | J | 3150 | J | 1580 | J | 719 | J | 258 | J | 1070 | J | 618 | J |
| PCB-199 | 111 | J | 6700 | J | 10400 | J | 10500 | J | 29600 | J | 25500 | J | 14000 | J | 4920 | J | 13000 | J | 11700 | J |
| PCB-200 | 13.8 | J | 731 | J | 1200 | J | 1230 | J | 2730 | J | 2550 | J | 1700 | J | 645 | J | 1460 | J | 1300 | J |
| PCB-201 | < 4.98 | UJ | 1050 | J | 1700 | J | 1690 | J | 4240 | J | 4020 | J | 2000 | J | 742 | J | 2050 | J | 1880 | J |
| PCB-202 | 19.9 | J | 1210 | J | 1820 | J | 1850 | J | 4480 | J | 4110 | J | 1900 | J | 776 | J | 2270 | J | 2040 | J |
| PCB-204 | < 4.98 | UJ | 6.87 | J | < 4.96 | UJ | < 4.96 | UJ | < 4.94 | UJ | 15.3 | J | < 4.81 | UJ | < 4.96 | UJ | < 4.93 | UJ | 9.7 | J |
| PCB-205 | 7.11 | J | 395 | J | 613 | J | 625 | J | 1420 | J | 1240 | J | 869 | J | 274 | J | 761 | J | 652 | J |
| PCB-206 | 35.5 | J | 2220 | J | 3220 | J | 3200 | J | 6790 | J | 6450 | J | 3550 | J | 1030 | J | 3570 | J | 3190 | J |
| PCB-207 | < 4.98 | UJ | 364 | J | 505 | J | 505 | J | 1070 | J | 1050 | J | 524 | J | 151 | J | 549 | J | 506 | J |
| PCB-208 | 9.27 | J | 608 | J | 798 | J | 789 | J | 1430 | J | 1320 | J | 578 | J | 198 | J | 820 | J | 752 | J |
| PCB-209 | 24 | J | 1540 | J | 1730 | J | 1660 | J | 2420 | J | 2100 | J | 160 | J | 211 | J | 1500 | J | 1380 | J |
| Total monoCB | 45.3 | J | 275 | J | 390 | J | 387 | J | 578 | J | 519 | J | 81.9 | J | 85.2 | J | 322 | J | 300 | J |
| Total diCB | 285 | J | 3130 | J | 4250 | J | 4210 | J | 6160 | J | 5470 | J | 499 | J | 702 | J | 3670 | J | 3390 | J |
| Total triCB | 981 | J | 14600 | J | 27400 | J | 26800 | J | 38700 | J | 34000 | J | 2300 | J | 3440 | J | 17900 | J | 17000 | J |
| Total tetraCB | 5480 | J | 121000 | J | 264000 | J | 262000 | J | 419000 | J | 377000 | J | 18200 | J | 33000 | J | 183000 | J | 172000 | J |
| Total pentaCB | 2270 | J | 79900 | J | 126000 | J | 130000 | J | 259000 | J | 239000 | J | 10400 | J | 25100 | J | 146000 | J | 133000 | J |
| Total hexaCB | 3170 | J | 163000 | J | 254000 | J | 258000 | J | 492000 | J | 443000 | J | 35600 | J | 91200 | J | 291000 | J | 265000 | J |
| Total heptaCB | 2190 | J | 133000 | J | 208000 | J | 222000 | J | 435000 | J | 400000 | J | 130000 | J | 97000 | J | 252000 | J | 227000 | J |
| Total octaCB | 462 | J | 29900 | J | 47600 | J | 48500 | J | 120000 | J | 108000 | J | 64500 | J | 21900 | J | 59400 | J | 52000 | J |
| Total nonaCB | 44.7 | J | 3190 | J | 4520 | J | 4490 | J | 9290 | J | 8820 | J | 4650 | J | 1380 | J | 4940 | J | 4440 | J |
| DecaCB | 24 | J | 1540 | J | 1730 | J | 1660 | J | 2420 | J | 2100 | J | 160 | J | 211 | J | 1500 | J | 1380 | J |
| Total PCB | 14952 | J | 549535 | J | 937890 | J | 958047 | J | 1782148 | J | 1617909 | J | 266390.9 | J | 274018.2 | J | 959732 | J | 875510 | J |

J = estimated result
 UJ = non-detect result at an estimated detection limit
 HRMS = high-resolution mass spectroscopy
 PCB = polychlorinated biphenyl
 ng/kg = nanogram per kilogram

Table 3-6
Sediment Total PCB Sample and Duplicate Results—Dark Head Cove, 2020

| Location | Total PCBs (µg/kg) | | |
|----------|--------------------|------------------|------|
| | Method 1668C | Method 1668C Dup | RPD |
| SD-301 | 14.95 | 549.5 | 189% |
| SD-302 | 937.9 | 958.0 | 2.1% |
| SD-303 | 1,782 | 1,618 | 9.7% |
| SD-304 | 266.4 | 274.0 | 2.8% |
| SD-305 | 959.7 | 875.5 | 9.2% |

Dup = duplicate
 PCB = polychlorinated biphenyl
 RPD = relative percent difference
 µg/kg = micrograms per kilogram

Table 3-7
Sediment Total Organic Carbon, Black Carbon, Percent Fines, and Percent Gravel
Results—Dark Head Cove, 2020

| Sample | Depth (inches) | Organic Carbon (%) | Black Carbon (%) | Percent Fines | Percent Gravel |
|---------------|-----------------------|---------------------------|-------------------------|----------------------|-----------------------|
| SD-301_0-2 | 0-2 | 8.52 | 0.381 | 16.6 | 53.7 |
| SD-301_2-4 | 2-4 | 6.34 | 0.059 | 15.8 | 40.3 |
| SD-301_4-6 | 4-6 | 3.39 | 0.04 | 31.7 | 27.2 |
| SD-301_6-12 | 6-12 | 2.77 | 0.067 | 37.3 | 35.9 |
| SD-302_0-2 | 0-2 | 14.4 | 1.52 | 22.3 | 52.1 |
| SD-302_2-4 | 2-4 | 3.85 | 0.03 | 20 | 30.1 |
| SD-302_4-6 | 4-6 | 1.13 | < 0.01 | 19.3 | 2.1 |
| SD-302_6-12 | 6-12 | 3.20 | 0.023 | 41.2 | 6.4 |
| SD-303_0-2 | 0-2 | 14.5 | 0.37 | 17.4 | 53.5 |
| SD-303_2-4 | 2-4 | 8.12 | 0.09 | 11 | 44.6 |
| SD-303_4-6 | 4-6 | 3.92 | 0.07 | 27.9 | 19.5 |
| SD-303_6-12 | 6-12 | 2.98 | 0.027 | 24.8 | 30.2 |
| SD-304_0-2 | 0-2 | 13.0 | 1.26 | 22.8 | 50.2 |
| SD-304_2-4 | 2-4 | 7.33 | 0.19 | 17.1 | 40.6 |
| SD-304_4-6 | 4-6 | 3.94 | 0.06 | 35.2 | 13.4 |
| SD-304_6-12 | 6-12 | 3.05 | 0.036 | 56.1 | 9.2 |
| SD-305_0-2 | 0-2 | 13.1 | 1.05 | 13.8 | 58.4 |
| SD-305_2-4 | 2-4 | 6.66 | 0.15 | 15.5 | 41.6 |
| SD-305_4-6 | 4-6 | 3.53 | 0.06 | 44.5 | 21.4 |
| SD-305_6-12 | 6-12 | 2.95 | 0.081 | 46.4 | 17.7 |

Table 3-8
Tissue Lipid Results—Dark Head Cove, 2020

| Sample | % Lipids |
|---------------|-----------------|
| 301A | 1.03 |
| 301B | 0.61 |
| 301C | 0.86 |
| 301D | 0.61 |
| 301E | 0.73 |
| 302A | 0.43 |
| 302B | 1.04 |
| 302C | 0.4 |
| 302D | 0.51 |
| 302E | 1.24 |
| 303A | 0.68 |
| 303B | 0.71 |
| 303C | 1.26 |
| 303D | 0.4 |
| 303E | 1.26 |
| 304A | 1.05 |
| 304B | 1.05 |
| 304C | 0.74 |
| 304D | 0.88 |
| 304E | 0.82 |
| 305A | 1.01 |
| 305B | 1.4 |
| 305C | 1.06 |
| 305D | 1.07 |
| 305E | 0.99 |
| Control A | 0.57 |
| Control B | 0.6 |
| Control C | 0.67 |
| Control D | 0.63 |
| Control E | 0.46 |

**Table 3-9
Benthic Worm Tissue PCB Results, 28-Day Bioaccumulation Test---Dark Head Cove 2020**

| Sample Analyte | TI-301-A | | TI-301-B | | TI-301-C | | TI-301-D | | TI-301-E | | TI-302-A | | TI-302-B | | TI-302-C | |
|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids |
| Percent lipids | | 1.03 | | 0.61 | | 0.86 | | 0.61 | | 0.73 | | 0.43 | | 1.04 | | 0.4 |
| PCB-1 | < 5.46 | <1 | < 12.9 | <2 | < 6.51 | <1 | < 5.95 | <1 | < 8.08 | <1 | < 5.91 | <1 | < 6.2 | <1 | < 5.13 | <1 |
| PCB-2 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-3 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-4/10 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-5/8 | 11 | 1.1 | < 12.9 | <2 U | < 6.51 | <1 U | 18.6 | 3 | 43.3 | 5.9 | 31.1 | 7.2 | 15.4 | 1.5 | 13.8 | 3.5 |
| PCB-6 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-7/9 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-11 | 24.9 | 2.4 | 31.3 | 5.1 | 20.6 | 2.4 | 15.3 | 2.5 | 23.2 | 3.2 | < 20.6 | <5 U | < 16.2 | <2 U | < 17.9 | <4 U |
| PCB-12/13 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-14 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-15 | 5.53 | 0.54 | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | 9.95 | 1.36 | 9.48 | 2.2 | < 6.2 | <1 U | 6.31 | 1.58 |
| PCB-16/32 | 13 | 1.3 | < 12.9 | <2 U | < 6.51 | <1 U | 17.6 | 2.9 | 30 | 4.1 | 26.7 | 6.2 | 20.6 | 2 | 27.4 | 6.9 |
| PCB-17 | 6.33 | 0.61 | < 12.9 | <2 U | < 6.51 | <1 U | 8.79 | 1.44 | 17.9 | 2.5 | 15.2 | 3.5 | 8.41 | 0.81 | 8.43 | 2.11 |
| PCB-18 | 11.7 | 1.1 | 12.9 | 2.1 | 9.32 | 1.08 | 16.6 | 2.7 | 34.7 | 4.8 | 23.7 | 5.5 | 13.2 | 1.3 | 13.2 | 3.3 |
| PCB-19 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-20/21/33 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-22 | 6.08 | 0.59 | < 12.9 | <2 U | < 6.51 | <1 U | 7.07 | 1.16 | 10.6 | 1.5 | < 5.91 | <1 U | 6.21 | 0.6 | 7.38 | 1.85 |
| PCB-23 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-24/27 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-25 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-26 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-28 | 15.8 | 1.5 | < 12.9 | <2 U | 13.7 | 1.6 | 16.1 | 2.6 | 22.1 | 3 | 21.2 | 4.9 | 16.2 | 1.6 | 19.2 | 4.8 |
| PCB-29 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-30 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-31 | 12.2 | 1.2 | < 12.9 | <2 U | < 6.51 | <1 U | 12.7 | 2.1 | 19.8 | 2.7 | 17 | 4 | 10.7 | 1 | 12.8 | 3.2 |
| PCB-34 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-35 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-36 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-37 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-38 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-39 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-40 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-41/64/71/72 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-42/59 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-43/49 | 45.6 | 4.4 | < 12.9 | <2 U | 78.4 | 9.1 | 54.9 | 9 | 29.3 | 4 | 35.7 | 8.3 | 83.1 | 8 | 116 | 29 |
| PCB-44 | 7.55 | 0.73 | < 12.9 | <2 U | 8.56 | 1 | 7.28 | 1.19 | < 8.08 | <1 U | < 5.91 | <1 U | 6.81 | 0.65 | < 5.13 | <1 U |
| PCB-45 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-46 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-47 | 69 | 6.7 | 35.9 | 5.9 | 129 | 15 | 85.4 | 14 | 44 | 6 | 51.6 | 12 | 127 | 12 | 192 | 48 |
| PCB-48/75 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-50 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-51 | 20.6 | 2 | < 12.9 | <2 U | 38.2 | 4.4 | 26.6 | 4.4 | 14.2 | 1.9 | 27.7 | 6.4 | 54.1 | 5.2 | 86 | 21.5 |
| PCB-52/69 | 19.9 | 1.9 | < 12.9 | <2 U | 28.6 | 3.3 | 23.4 | 3.8 | < 8.08 | <1 U | 15.3 | 3.6 | 29.4 | 2.8 | 38 | 9.5 |
| PCB-53 | 17.5 | 1.7 | < 12.9 | <2 U | 29.4 | 3.4 | 21.6 | 3.5 | < 8.08 | <1 U | 18.7 | 4.3 | 37.7 | 3.6 | 55.4 | 13.9 |
| PCB-54 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | 8.16 | 0.78 | 13.4 | 3.4 |
| PCB-55 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-56/60 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-57 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-58 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-61/70 | < 5.46 | <1 U | < 12.9 | <2 U | 13.3 | 1.5 | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | 12.5 | 3.1 |
| PCB-62 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-63 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-65 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |

**Table 3-9
Benthic Worm Tissue PCB Results, 28-Day Bioaccumulation Test---Dark Head Cove 2020**

| Sample Analyte | TI-301-A | | TI-301-B | | TI-301-C | | TI-301-D | | TI-301-E | | TI-302-A | | TI-302-B | | TI-302-C | |
|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids |
| PCB-66/76 | < 5.46 | <1 U | < 12.9 | <2 U | 13.1 | 1.5 | 12.1 | 2 | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | 14.9 | 3.7 |
| PCB-67 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-68 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-73 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-74 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-77 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-78 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-79 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-80 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-81 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-82 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-83 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-84/92 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | 12.2 | 2 | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | 20.1 | 5 |
| PCB-85/116 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-86 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-87/117/125 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-88/91 | < 5.46 | <1 U | < 12.9 | <2 U | 20.8 | 2.4 | 17.6 | 2.9 | < 8.08 | <1 U | 13.3 | 3.1 | 22.2 | 2.1 | 32.4 | 8.1 |
| PCB-89 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-90/101 | 33.3 | 3.2 | < 12.9 | <2 U | 62.2 | 7.2 | 46.9 | 7.7 | 29.3 | 4 | 28.7 | 6.7 | 50.4 | 4.8 | 79.6 | 19.9 |
| PCB-93 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-94 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | 6.71 | 1.68 |
| PCB-95/98/102 | 21 | 2 | < 12.9 | <2 U | 34.9 | 4.1 | 30.1 | 4.9 | < 8.08 | <1 U | 21.3 | 5 | 34.3 | 3.3 | 46.2 | 11.6 |
| PCB-96 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-97 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-99 | < 5.46 | <1 U | 15 | 2.5 | 30.3 | 3.5 | 26.4 | 4.3 | < 8.08 | <1 U | 19.1 | 4.4 | < 6.2 | <1 U | 46.1 | 11.5 |
| PCB-100 | 14.2 | 1.4 | < 12.9 | <2 U | 26.4 | 3.1 | 18.2 | 3 | 11.4 | 1.6 | 16 | 3.7 | 26.9 | 2.6 | 38.1 | 9.5 |
| PCB-103 | < 5.46 | <1 U | < 12.9 | <2 U | 11.2 | 1.3 | 7.44 | 1.22 | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | 17.8 | 4.5 |
| PCB-104 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | 6.08 | 1.52 |
| PCB-105 | < 5.46 | <1 U | < 12.9 | <2 U | 10.1 | 1.2 | 8.88 | 1.46 | < 8.08 | <1 U | < 5.91 | <1 U | 8.6 | 0.83 | < 5.13 | <1 U |
| PCB-106/118 | 22.1 | 2.1 | < 12.9 | <2 U | 33.7 | 3.9 | 31.1 | 5.1 | 21.8 | 3 | 20.3 | 4.7 | 29.2 | 2.8 | 36 | 9 |
| PCB-107/109 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-108/112 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-110 | 26.3 | 2.6 | 18.3 | 3 | 36 | 4.2 | 32.6 | 5.3 | 19.9 | 2.7 | 19 | 4.4 | 32.8 | 3.2 | 40.6 | 10.2 |
| PCB-111/115 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-113 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-114 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-119 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | 6.11 | 1 | < 8.08 | <1 U | < 5.91 | <1 U | 8.16 | 0.78 | 11.5 | 2.9 |
| PCB-120 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-121 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-122 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-123 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-124 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-126 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-127 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-128/162 | 11 | 1.1 | < 12.9 | <2 U | 16.5 | 1.9 | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | 13 | 1.3 | 16 | 4 |
| PCB-129 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-130 | 8.05 | 0.78 | < 12.9 | <2 U | 10.8 | 1.3 | 10.9 | 1.8 | < 8.08 | <1 U | 9.58 | 2.23 | 9.62 | 0.93 | < 5.13 | <1 U |
| PCB-131/133 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-132/161 | 21.3 | 2.1 | < 12.9 | <2 U | 28.3 | 3.3 | 27.9 | 4.6 | 19.1 | 2.6 | 25.2 | 5.9 | 30.5 | 2.9 | 39.4 | 9.9 |
| PCB-134/143 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-135 | < 5.46 | <1 U | 13.7 | 2.2 | < 6.51 | <1 U | 20.4 | 3.3 | 14 | 1.9 | 16.9 | 3.9 | 21.2 | 2 | 27.2 | 6.8 |
| PCB-136 | 20.7 | 2 | 18.7 | 3.1 | 28.7 | 3.3 | 28.1 | 4.6 | < 8.08 | <1 U | < 5.91 | <1 U | 30.5 | 2.9 | 35.7 | 8.9 |
| PCB-137 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-138/163/164 | 119 | 12 | 88.5 | 14.5 | 168 | 20 | 148 | 24 | 115 | 16 | 136 | 32 | 157 | 15 | 198 | 50 |

**Table 3-9
Benthic Worm Tissue PCB Results, 28-Day Bioaccumulation Test---Dark Head Cove 2020**

| Sample Analyte | TI-301-A | | TI-301-B | | TI-301-C | | TI-301-D | | TI-301-E | | TI-302-A | | TI-302-B | | TI-302-C | |
|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids |
| PCB-139/149 | 113 | 11 | 98.6 | 16.2 | 170 | 20 | 143 | 23 | 115 | 16 | 130 | 30 | 161 | 15 | 199 | 50 |
| PCB-140 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-141 | 11.9 | 1.2 | < 12.9 | <2 U | 21.4 | 2.5 | 17.8 | 2.9 | < 8.08 | <1 U | 7.86 | 1.83 | 17.4 | 1.7 | 25.9 | 6.5 |
| PCB-142 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-144 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-145 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-146/165 | 31 | 3 | < 12.9 | <2 U | 43.6 | 5.1 | 35 | 5.7 | 31.5 | 4.3 | 35.9 | 8.3 | 36.9 | 3.5 | 50.9 | 12.7 |
| PCB-147 | 5.9 | 0.57 | < 12.9 | <2 U | < 6.51 | <1 U | 9.77 | 1.6 | 8.11 | 1.11 | 12.1 | 2.8 | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-148 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-150 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-151 | 29.9 | 2.9 | 22.3 | 3.7 | 44.2 | 5.1 | 40.8 | 6.7 | 32.3 | 4.4 | 38.8 | 9 | 45.8 | 4.4 | 59.7 | 14.9 |
| PCB-152 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-153 | 130 | 13 | 102 | 17 | 200 | 23 | 160 | 26 | 126 | 17 | 141 | 33 | 179 | 17 | 247 | 62 |
| PCB-154 | 11.5 | 1.1 | < 12.9 | <2 U | 17.3 | 2 | 14.5 | 2.4 | 12.4 | 1.7 | 15.5 | 3.6 | 16.1 | 1.5 | 22.1 | 5.5 |
| PCB-155 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-156 | < 5.46 | <1 U | < 12.9 | <2 U | 8.94 | 1.04 | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | 8.92 | 0.86 | 11.7 | 2.9 |
| PCB-157 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-158/160 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | 10.7 | 2.7 |
| PCB-159 | 9.13 | 0.89 | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-166 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-167 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-168 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-169 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-170 | 39.9 | 3.9 | 31 | 5.1 | 67.4 | 7.8 | 60.4 | 9.9 | 36.4 | 5 | 42.3 | 9.8 | 69.4 | 6.7 | 80 | 20 |
| PCB-171 | < 5.46 | <1 U | 21.4 | 3.5 | 32.4 | 3.8 | 26 | 4.3 | 24 | 3.3 | 31.6 | 7.3 | 34.4 | 3.3 | 37.1 | 9.3 |
| PCB-172 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | 8.64 | 0.83 | < 5.13 | <1 U |
| PCB-173 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-174 | 53.1 | 5.2 | 48.6 | 8 | 76.9 | 8.9 | 69.9 | 11.5 | 55.3 | 7.6 | 61 | 14.2 | 84.5 | 8.1 | 94.8 | 23.7 |
| PCB-175 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-176 | 19.8 | 1.9 | 21.7 | 3.6 | 22.2 | 2.6 | 23.5 | 3.9 | < 8.08 | <1 U | 24.2 | 5.6 | 24.9 | 2.4 | 28.3 | 7.1 |
| PCB-177 | 84.5 | 8.2 | 86.1 | 14.1 | 116 | 13 | 104 | 17 | 96.2 | 13.2 | 105 | 24 | 113 | 11 | 125 | 31 |
| PCB-178 | 44.1 | 4.3 | 45.5 | 7.5 | 49.6 | 5.8 | 49.4 | 8.1 | 53.1 | 7.3 | 57.7 | 13.4 | 49.9 | 4.8 | 56.1 | 14 |
| PCB-179 | 65 | 6.3 | 64.7 | 10.6 | 80.9 | 9.4 | 77.3 | 12.7 | 76.6 | 10.5 | 81.1 | 18.9 | 85.1 | 8.2 | 92 | 23 |
| PCB-180 | 58 | 5.6 | 22.3 | 3.7 | 110 | 13 | 81.7 | 13.4 | 26.6 | 3.6 | 30 | 7 | 89.3 | 8.6 | 141 | 35 |
| PCB-181 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-182/186 | 260 | 25 | 256 | 42 | 317 | 37 | 301 | 49 | 294 | 40 | 340 | 79 | 320 | 31 | 339 | 85 |
| PCB-183 | 39.7 | 3.9 | 36.5 | 6 | 55.4 | 6.4 | 48.5 | 8 | 36.9 | 5.1 | 43.5 | 10.1 | 57.8 | 5.6 | 66.8 | 16.7 |
| PCB-184 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-185 | 8.75 | 0.85 | < 12.9 | <2 U | 12.6 | 1.5 | 10.2 | 1.7 | < 8.08 | <1 U | < 5.91 | <1 U | 12.4 | 1.2 | < 5.13 | <1 U |
| PCB-186 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-188 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | 6.06 | 1.41 | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-189 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-190 | 19.4 | 1.9 | < 12.9 | <2 U | 30.1 | 3.5 | 24.3 | 4 | 24 | 3.3 | < 5.91 | <1 U | 27.8 | 2.7 | 30.9 | 7.7 |
| PCB-191 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-192 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-193 | 19.1 | 1.9 | 18.3 | 3 | 21.5 | 2.5 | 21.5 | 3.5 | 19.5 | 2.7 | 22.6 | 5.3 | 24.1 | 2.3 | 24.4 | 6.1 |
| PCB-194 | 21.5 | 2.1 | 13.6 | 2.2 | 31.6 | 3.7 | 25.4 | 4.2 | < 8.08 | <1 U | 15.9 | 3.7 | 29.2 | 2.8 | 41.3 | 10.3 |
| PCB-195 | 39.8 | 3.9 | 42.1 | 6.9 | 47 | 5.5 | 45.2 | 7.4 | 46.5 | 6.4 | 42 | 9.8 | 49.1 | 4.7 | 52.4 | 13.1 |
| PCB-196/203 | 62.3 | 6 | < 12.9 | <2 U | 82.4 | 9.6 | 87.1 | 14.3 | 74.8 | 10.2 | 73.5 | 17.1 | 84.4 | 8.1 | 95.1 | 23.8 |
| PCB-197 | 9.37 | 0.91 | < 12.9 | <2 U | < 6.51 | <1 U | 11.2 | 1.8 | 13.6 | 1.9 | 10.8 | 2.5 | 11.8 | 1.1 | 12.3 | 3.1 |
| PCB-198 | < 5.46 | <1 U | < 12.9 | <2 U | 8.62 | 1 | 6.21 | 1.02 | < 8.08 | <1 U | 7.2 | 1.67 | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-199 | 57.5 | 5.6 | 56.8 | 9.3 | 75.2 | 8.7 | 70.5 | 11.6 | 62.7 | 8.6 | 61.6 | 14.3 | 74.9 | 7.2 | 83.8 | 21 |
| PCB-200 | 11.2 | 1.1 | < 12.9 | <2 U | 15.6 | 1.8 | 15.1 | 2.5 | < 8.08 | <1 U | < 5.91 | <1 U | 15.9 | 1.5 | 16.6 | 4.2 |
| PCB-201 | 35.5 | 3.4 | 36.5 | 6 | 40.3 | 4.7 | 41.1 | 6.7 | 46.1 | 6.3 | 42.6 | 9.9 | 42.1 | 4 | 42.2 | 10.6 |

**Table 3-9
Benthic Worm Tissue PCB Results, 28-Day Bioaccumulation Test---Dark Head Cove 2020**

| Sample | TI-301-A | | TI-301-B | | TI-301-C | | TI-301-D | | TI-301-E | | TI-302-A | | TI-302-B | | TI-302-C | |
|------------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|-------------|-------------|---------------|-------------|
| | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids |
| PCB-202 | 76.3 | 7.4 | 84.2 | 13.8 | 91.2 | 10.6 | 88.2 | 14.5 | 96 | 13.2 | 93.9 | 21.8 | 85 | 8.2 | 81.9 | 20.5 |
| PCB-204 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-205 | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| PCB-206 | 33.5 | 3.3 | 41 | 6.7 | 42.3 | 4.9 | 41.5 | 6.8 | 44.3 | 6.1 | 42.6 | 9.9 | 41 | 3.9 | 40 | 10 |
| PCB-207 | 12.3 | 1.2 | 13.5 | 2.2 | 14.8 | 1.7 | 14.1 | 2.3 | 16.3 | 2.2 | 13.4 | 3.1 | 13.3 | 1.3 | 13.9 | 3.5 |
| PCB-208 | 62.5 | 6.1 | 76 | 12.5 | 71.3 | 8.3 | 74.4 | 12.2 | 83.7 | 11.5 | 78.7 | 18.3 | 69.5 | 6.7 | 72.3 | 18.1 |
| PCB-209 | 97.7 | 9.5 | 112 | 18 | 110 | 13 | 113 | 19 | 111 | 15 | 107 | 25 | 105 | 10 | 100 | 25 |
| Total monoCB | < 5.46 | <1 U | < 12.9 | <2 U | < 6.51 | <1 U | < 5.95 | <1 U | < 8.08 | <1 U | < 5.91 | <1 U | < 6.2 | <1 U | < 5.13 | <1 U |
| Total diCB | 41.4 | 4 | 31.3 | 5.1 | 20.6 | 2.4 | 33.9 | 5.6 | 76.4 | 10.5 | 61.2 | 14.2 | 31.6 | 3 | 38.1 | 9.5 |
| Total triCB | 65.2 | 6.3 | 12.9 | 2.1 | 23 | 2.7 | 78.8 | 12.9 | 135 | 18 | 104 | 24 | 75.4 | 7.3 | 88.4 | 22.1 |
| Total tetraCB | 180 | 17 | 35.9 | 5.9 | 338 | 39 | 231 | 38 | 87.5 | 12 | 149 | 35 | 346 | 33 | 528 | 132 |
| Total pentaCB | 117 | 11 | 33.3 | 5.5 | 266 | 31 | 237 | 39 | 82.4 | 11.3 | 138 | 32 | 212 | 20 | 381 | 95 |
| Total hexaCB | 523 | 51 | 344 | 56 | 758 | 88 | 656 | 108 | 473 | 65 | 569 | 132 | 728 | 70 | 944 | 236 |
| Total heptaCB | 712 | 69 | 652 | 107 | 992 | 115 | 898 | 147 | 743 | 102 | 845 | 197 | 1000 | 96 | 1120 | 280 |
| Total octaCB | 313 | 30 | 233 | 38 | 392 | 46 | 390 | 64 | 340 | 47 | 347 | 81 | 392 | 38 | 426 | 107 |
| Total nonaCB | 108 | 10 | 131 | 21 | 128 | 15 | 130 | 21 | 144 | 20 | 135 | 31 | 124 | 12 | 126 | 32 |
| DecaCB | 97.7 | 9.5 | 112 | 18 | 110 | 13 | 113 | 19 | 111 | 15 | 107 | 25 | 105 | 10 | 100 | 25 |
| Total PCB | 2157.3 | 209 | 1585.4 | 260 | 3027.6 | 352 | 2767.7 | 454 | 2192.3 | 300 | 2455.2 | 571 | 3014 | 290 | 3751.5 | 938 |

PCB = polychlorinated biphenyls

pg/g = picogram per gram

µg/g = microgram per gram

Table 3-9
Benthic Worm Tissue PCB Results, 28-Day Bioaccumulation Test---Dark Head Cove 2020

| Sample | TI-302-D | | TI-302-E | | TI-303-A | | TI-303-B | | TI-303-C | | TI-303-D | | TI-303-E | |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids |
| Percent lipids | | 0.51 | | 1.24 | | 0.68 | | 0.71 | | 1.26 | | 0.4 | | 1.26 |
| PCB-1 | < 5.63 | <1 | < 7.94 | <1 | < 10.6 | <2 | < 7.26 | <1 | < 8.05 | <1 | < 6.67 | <2 | < 13.8 | <1 |
| PCB-2 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-3 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-4/10 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-5/8 | 18.5 | 3.6 | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-6 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-7/9 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-11 | < 16.5 | <3 U | < 18 | <1 U | 32.7 | 4.8 | 32.3 | 4.5 | 21.9 | 1.7 | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-12/13 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-14 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-15 | 5.78 | 1.13 | < 7.94 | <1 U | < 10.6 | <2 U | 8.17 | 1.15 | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-16/32 | 21.1 | 4.1 | 18.4 | 1.5 | < 10.6 | <2 U | 32.4 | 4.6 | 16.2 | 1.3 | 18 | 4.5 | 29.5 | 2.3 |
| PCB-17 | 9.34 | 1.83 | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-18 | 17 | 3.3 | 10.6 | 0.9 | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | 6.85 | 1.71 | < 13.8 | <1 U |
| PCB-19 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-20/21/33 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-22 | 7.79 | 1.53 | < 7.94 | <1 U | < 10.6 | <2 U | 11.1 | 1.6 | < 8.05 | <1 U | 7.14 | 1.79 | < 13.8 | <1 U |
| PCB-23 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-24/27 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-25 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-26 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-28 | 18.9 | 3.7 | 15 | 1.2 | 14.6 | 2.1 | 21.3 | 3 | 12.1 | 1 | 15 | 3.8 | 25.6 | 2 |
| PCB-29 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-30 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-31 | 12.6 | 2.5 | 9.51 | 0.77 | < 10.6 | <2 U | 14.5 | 2 | < 8.05 | <1 U | 9.37 | 2.34 | < 13.8 | <1 U |
| PCB-34 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-35 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-36 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-37 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-38 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | 9.07 | 1.28 | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-39 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-40 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-41/64/71/72 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | 43.2 | 6.1 | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-42/59 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-43/49 | 65.2 | 12.8 | 64.6 | 5.2 | 94.7 | 13.9 | 241 | 34 | 108 | 9 | 109 | 27 | 214 | 17 |
| PCB-44 | 6.76 | 1.33 | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | 7.63 | 1.91 | < 13.8 | <1 U |
| PCB-45 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-46 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-47 | 102 | 20 | 98.6 | 8 | 164 | 24 | 409 | 58 | 182 | 14 | 185 | 46 | 388 | 31 |
| PCB-48/75 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-50 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-51 | 45.8 | 9 | 48.7 | 3.9 | 76.2 | 11.2 | 166 | 23 | 80 | 6.3 | < 6.67 | <2 U | 134 | 11 |
| PCB-52/69 | 23.9 | 4.7 | 24.8 | 2 | 35 | 5.1 | 79.3 | 11.2 | 35 | 2.8 | 39.7 | 9.9 | 66.2 | 5.3 |
| PCB-53 | 31.8 | 6.2 | 31.3 | 2.5 | 45.4 | 6.7 | 102 | 14 | 49.5 | 3.9 | 56.2 | 14.1 | 83.2 | 6.6 |
| PCB-54 | 7.46 | 1.46 | 8.27 | 0.67 | < 10.6 | <2 U | 25.4 | 3.6 | 13.1 | 1 | 14.8 | 3.7 | 20.3 | 1.6 |
| PCB-55 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-56/60 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-57 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-58 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-61/70 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | 17.5 | 2.5 | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-62 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-63 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-65 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |

Table 3-9
Benthic Worm Tissue PCB Results, 28-Day Bioaccumulation Test---Dark Head Cove 2020

| Sample | TI-302-D | | TI-302-E | | TI-303-A | | TI-303-B | | TI-303-C | | TI-303-D | | TI-303-E | |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids |
| PCB-66/76 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | 19.7 | 2.8 | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-67 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | 20.9 | 1.7 |
| PCB-68 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-73 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | 10.3 | 1.5 | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-74 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-77 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-78 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-79 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-80 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-81 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-82 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-83 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-84/92 | 11.5 | 2.3 | < 7.94 | <1 U | 26.1 | 3.8 | 43.5 | 6.1 | 22.1 | 1.8 | 22.5 | 5.6 | 77.4 | 6.1 |
| PCB-85/116 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-86 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-87/117/125 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-88/91 | < 5.63 | <1 U | < 7.94 | <1 U | 72.4 | 10.6 | 120 | 17 | 65.8 | 5.2 | 71.2 | 17.8 | 166 | 13 |
| PCB-89 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-90/101 | 47 | 9.2 | 46.3 | 3.7 | 101 | 15 | 198 | 28 | 100 | 7.9 | 102 | 26 | 324 | 26 |
| PCB-93 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-94 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | 10.3 | 1.5 | < 8.05 | <1 U | < 6.67 | <2 U | 28.4 | 2.3 |
| PCB-95/98/102 | 29.8 | 5.8 | 26.3 | 2.1 | 72.5 | 10.7 | 123 | 17 | 67.7 | 5.4 | 74.9 | 18.7 | 131 | 10 |
| PCB-96 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-97 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-99 | 28.9 | 5.7 | 26.8 | 2.2 | 74.5 | 11 | 145 | 20 | 72.2 | 5.7 | 75.7 | 18.9 | 302 | 24 |
| PCB-100 | 24.1 | 4.7 | 20.3 | 1.6 | 80.6 | 11.9 | 153 | 22 | 84 | 6.7 | 88.9 | 22.2 | 704 | 56 |
| PCB-103 | 10 | 1.96 | 8.82 | 0.71 | 27.9 | 4.1 | 59.9 | 8.4 | 29 | 2.3 | 30 | 7.5 | 185 | 15 |
| PCB-104 | < 5.63 | <1 U | < 7.94 | <1 U | 13.8 | 2 | < 7.26 | <1 U | 13.9 | 1.1 | < 6.67 | <2 U | 65.6 | 5.2 |
| PCB-105 | 8.16 | 1.6 | < 7.94 | <1 U | 12.6 | 1.9 | 18.6 | 2.6 | 11.5 | 0.9 | 12.5 | 3.1 | 19.9 | 1.6 |
| PCB-106/118 | 25.1 | 4.9 | 27.1 | 2.2 | 52.4 | 7.7 | 76.9 | 10.8 | 47.1 | 3.7 | 50.4 | 12.6 | 91.3 | 7.2 |
| PCB-107/109 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-108/112 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-110 | 27.9 | 5.5 | 28 | 2.3 | 55.4 | 8.1 | 94.1 | 13.3 | 54.4 | 4.3 | 57.5 | 14.4 | 100 | 7.9 |
| PCB-111/115 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-113 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-114 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-119 | 6.03 | 1.18 | < 7.94 | <1 U | 22.1 | 3.3 | 36.2 | 5.1 | 18 | 1.4 | < 6.67 | <2 U | 132 | 10 |
| PCB-120 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-121 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | 22.9 | 1.8 |
| PCB-122 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-123 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-124 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-126 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-127 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-128/162 | < 5.63 | <1 U | < 7.94 | <1 U | 35 | 5.1 | 42.5 | 6 | 30.5 | 2.4 | 33.2 | 8.3 | 54 | 4.3 |
| PCB-129 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-130 | 9.75 | 1.91 | 10 | 0.81 | 39.1 | 5.8 | 43.7 | 6.2 | < 8.05 | <1 U | 34.3 | 8.6 | 56.6 | 4.5 |
| PCB-131/133 | < 5.63 | <1 U | < 7.94 | <1 U | 27.5 | 4 | 28.7 | 4 | 21.6 | 1.7 | 24.3 | 6.1 | 47.1 | 3.7 |
| PCB-132/161 | 23.9 | 4.7 | 23.1 | 1.9 | 108 | 16 | 132 | 19 | 92.1 | 7.3 | 94.9 | 23.7 | 164 | 13 |
| PCB-134/143 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | 24.2 | 3.4 | 16.2 | 1.3 | < 6.67 | <2 U | 34.6 | 2.7 |
| PCB-135 | < 5.63 | <1 U | 19.4 | 1.6 | 73.6 | 10.8 | 101 | 14 | 63.5 | 5 | 75.1 | 18.8 | 141 | 11 |
| PCB-136 | 25.3 | 5 | 20.3 | 1.6 | 115 | 17 | 160 | 23 | 108 | 9 | 120 | 30 | 183 | 15 |
| PCB-137 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-138/163/164 | 147 | 29 | 140 | 11 | 453 | 67 | 565 | 80 | 391 | 31 | 426 | 107 | 765 | 61 |

Table 3-9
Benthic Worm Tissue PCB Results, 28-Day Bioaccumulation Test---Dark Head Cove 2020

| Sample | TI-302-D | | TI-302-E | | TI-303-A | | TI-303-B | | TI-303-C | | TI-303-D | | TI-303-E | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids |
| PCB-139/149 | 150 | 29 | 130 | 10 | 642 | 94 | 836 | 118 | 555 | 44 | 650 | 163 | 1090 | 87 |
| PCB-140 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | 15.9 | 2.2 | 11.7 | 0.9 | 11.1 | 2.8 | 21.7 | 1.7 |
| PCB-141 | 13.9 | 2.7 | 14.4 | 1.2 | 15.9 | 2.3 | 56.1 | 7.9 | 18.9 | 1.5 | 20.2 | 5.1 | 77.3 | 6.1 |
| PCB-142 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-144 | 5.95 | 1.17 | < 7.94 | <1 U | < 10.6 | <2 U | 24.1 | 3.4 | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-145 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-146/165 | 32.3 | 6.3 | 35.3 | 2.8 | 156 | 23 | 188 | 26 | 127 | 10 | 139 | 35 | 280 | 22 |
| PCB-147 | 13.7 | 2.7 | 12.2 | 1 | 53.6 | 7.9 | 71.2 | 10 | 44.3 | 3.5 | 53.9 | 13.5 | 150 | 12 |
| PCB-148 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | 32 | 2.5 |
| PCB-150 | < 5.63 | <1 U | < 7.94 | <1 U | 26.6 | 3.9 | < 7.26 | <1 U | 21.9 | 1.7 | 24.2 | 6.1 | 46.9 | 3.7 |
| PCB-151 | 44 | 8.6 | < 7.94 | <1 U | 143 | 21 | 204 | 29 | 127 | 10 | 153 | 38 | 292 | 23 |
| PCB-152 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-153 | 159 | 31 | 166 | 13 | 682 | 100 | 882 | 124 | 579 | 46 | 607 | 152 | 1360 | 108 |
| PCB-154 | 14.3 | 2.8 | < 7.94 | <1 U | 85.2 | 12.5 | 118 | 17 | 79.9 | 6.3 | 95.8 | 24 | 194 | 15 |
| PCB-155 | < 5.63 | <1 U | < 7.94 | <1 U | 12.1 | 1.8 | 11.8 | 1.7 | 8.68 | 0.69 | 9.64 | 2.41 | < 13.8 | <1 U |
| PCB-156 | 7.71 | 1.51 | < 7.94 | <1 U | 20.9 | 3.1 | 32.6 | 4.6 | < 8.05 | <1 U | 23.5 | 5.9 | < 13.8 | <1 U |
| PCB-157 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-158/160 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | 27.9 | 3.9 | < 8.05 | <1 U | < 6.67 | <2 U | 42.4 | 3.4 |
| PCB-159 | < 5.63 | <1 U | 13.5 | 1.1 | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-166 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-167 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | 12.4 | 1.7 | < 8.05 | <1 U | 7.04 | 1.76 | 18.3 | 1.5 |
| PCB-168 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-169 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-170 | 57.6 | 11.3 | 68.6 | 5.5 | 235 | 35 | 338 | 48 | 219 | 17 | 234 | 59 | 379 | 30 |
| PCB-171 | 30.6 | 6 | 32.3 | 2.6 | 168 | 25 | 183 | 26 | 144 | 11 | 164 | 41 | 208 | 17 |
| PCB-172 | 6.81 | 1.34 | 8.88 | 0.72 | < 10.6 | <2 U | 43.3 | 6.1 | 26.1 | 2.1 | 25 | 6.3 | 48.7 | 3.9 |
| PCB-173 | < 5.63 | <1 U | < 7.94 | <1 U | 12.5 | 1.8 | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-174 | 74.4 | 14.6 | 78.3 | 6.3 | 330 | 49 | 439 | 62 | 301 | 24 | 334 | 84 | 504 | 40 |
| PCB-175 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | 20.9 | 2.9 | 17.8 | 1.4 | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-176 | 23.9 | 4.7 | 24.9 | 2 | 145 | 21 | 144 | 20 | 130 | 10 | 140 | 35 | 168 | 13 |
| PCB-177 | 103 | 20 | 109 | 9 | 574 | 84 | 588 | 83 | 474 | 38 | 526 | 132 | 656 | 52 |
| PCB-178 | 48.3 | 9.5 | 52.7 | 4.3 | 204 | 30 | 205 | 29 | 177 | 14 | 200 | 50 | 243 | 19 |
| PCB-179 | 77.9 | 15.3 | 82.1 | 6.6 | 435 | 64 | 456 | 64 | 375 | 30 | 422 | 106 | 504 | 40 |
| PCB-180 | 73.1 | 14.3 | 86.8 | 7 | 92.4 | 13.6 | 359 | 51 | 111 | 9 | 126 | 32 | 453 | 36 |
| PCB-181 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-182/186 | 301 | 59 | 300 | 24 | 1320 | 194 | 1340 | 189 | 1140 | 90 | 1230 | 308 | 1510 | 120 |
| PCB-183 | 48.5 | 9.5 | 57.1 | 4.6 | 234 | 34 | 288 | 41 | 208 | 17 | 239 | 60 | 337 | 27 |
| PCB-184 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-185 | 11.6 | 2.3 | 10.7 | 0.9 | 52.6 | 7.7 | 61.6 | 8.7 | 47.5 | 3.8 | 56.6 | 14.2 | 70.5 | 5.6 |
| PCB-186 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-188 | < 5.63 | <1 U | < 7.94 | <1 U | 13.8 | 2 | 12.8 | 1.8 | 11.5 | 0.9 | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-189 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | 16.3 | 2.3 | 10.5 | 0.8 | < 6.67 | <2 U | 17.2 | 1.4 |
| PCB-190 | 24.9 | 4.9 | 28.8 | 2.3 | 113 | 17 | 128 | 18 | 103 | 8 | 110 | 28 | 148 | 12 |
| PCB-191 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | 7.59 | 1.07 | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-192 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-193 | 20.8 | 4.1 | 21.4 | 1.7 | 69.3 | 10.2 | 79.3 | 11.2 | 64 | 5.1 | 70.7 | 17.7 | 95.2 | 7.6 |
| PCB-194 | 24.1 | 4.7 | 36 | 2.9 | 80.3 | 11.8 | 166 | 23 | 80.5 | 6.4 | 93.4 | 23.4 | 158 | 13 |
| PCB-195 | 41.9 | 8.2 | 50.2 | 4 | 243 | 36 | 291 | 41 | 258 | 20 | 256 | 64 | 304 | 24 |
| PCB-196/203 | 78.1 | 15.3 | 88.7 | 7.2 | 376 | 55 | 467 | 66 | 366 | 29 | 392 | 98 | 502 | 40 |
| PCB-197 | 12.1 | 2.4 | 11.4 | 0.9 | < 10.6 | <2 U | 57.4 | 8.1 | 50.6 | 4 | < 6.67 | <2 U | 62.7 | 5 |
| PCB-198 | < 5.63 | <1 U | < 7.94 | <1 U | 29.3 | 4.3 | 29.9 | 4.2 | 23.5 | 1.9 | 26.5 | 6.6 | 36.4 | 2.9 |
| PCB-199 | < 5.63 | <1 U | 77.7 | 6.3 | 409 | 60 | 497 | 70 | 386 | 31 | 395 | 99 | 499 | 40 |
| PCB-200 | 13.3 | 2.6 | < 7.94 | <1 U | 77.2 | 11.4 | 83 | 11.7 | 73.8 | 5.9 | 74.5 | 18.6 | 84.4 | 6.7 |
| PCB-201 | 40 | 7.8 | 43.8 | 3.5 | 160 | 24 | 167 | 24 | 152 | 12 | 149 | 37 | 171 | 14 |

**Table 3-9
Benthic Worm Tissue PCB Results, 28-Day Bioaccumulation Test---Dark Head Cove 2020**

| Sample | TI-302-D | | TI-302-E | | TI-303-A | | TI-303-B | | TI-303-C | | TI-303-D | | TI-303-E | |
|------------------|---------------|-------------|---------------|-------------|---------------|-------------|----------------|-------------|---------------|-------------|---------------|-------------|----------------|-------------|
| | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids |
| PCB-202 | 76.5 | 15 | 89.4 | 7.2 | 225 | 33 | 215 | 30 | 200 | 16 | 218 | 55 | 236 | 19 |
| PCB-204 | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| PCB-205 | < 5.63 | <1 U | < 7.94 | <1 U | 31 | 4.6 | 34.7 | 4.9 | 26.3 | 2.1 | 29.2 | 7.3 | < 13.8 | <1 U |
| PCB-206 | 38.2 | 7.5 | 41.8 | 3.4 | 130 | 19 | 146 | 21 | 117 | 9 | 127 | 32 | 140 | 11 |
| PCB-207 | 12 | 2.4 | 14 | 1.1 | 35.8 | 5.3 | 37.7 | 5.3 | 34.1 | 2.7 | 36.5 | 9.1 | 39.5 | 3.1 |
| PCB-208 | 67.5 | 13.2 | 76.2 | 6.1 | 113 | 17 | 110 | 15 | 106 | 8 | 116 | 29 | 109 | 9 |
| PCB-209 | 91.1 | 17.9 | 103 | 8 | 142 | 21 | 146 | 21 | 139 | 11 | 146 | 37 | 150 | 12 |
| Total monoCB | < 5.63 | <1 U | < 7.94 | <1 U | < 10.6 | <2 U | < 7.26 | <1 U | < 8.05 | <1 U | < 6.67 | <2 U | < 13.8 | <1 U |
| Total diCB | 40.8 | 8 | 18 | 1.5 | < 32.7 | <5 U | 40.5 | 5.7 | 21.9 | 1.7 | < 6.67 | <2 U | < 13.8 | <1 U |
| Total triCB | 86.8 | 17 | 53.6 | 4.3 | 14.6 | 2.1 | 88.4 | 12.5 | 28.3 | 2.2 | 56.4 | 14.1 | 55.1 | 4.4 |
| Total tetraCB | 283 | 55 | 276 | 22 | 415 | 61 | 1110 | 156 | 467 | 37 | 413 | 103 | 927 | 74 |
| Total pentaCB | 219 | 43 | 184 | 15 | 611 | 90 | 1080 | 152 | 586 | 47 | 585 | 146 | 2350 | 186 |
| Total hexaCB | 647 | 127 | 584 | 47 | 2690 | 396 | 3580 | 504 | 2290 | 182 | 2600 | 650 | 5040 | 400 |
| Total heptaCB | 902 | 177 | 962 | 78 | 4000 | 588 | 4710 | 663 | 3560 | 283 | 3880 | 970 | 5340 | 424 |
| Total octaCB | 286 | 56 | 397 | 32 | 1630 | 240 | 2010 | 283 | 1620 | 129 | 1630 | 408 | 2050 | 163 |
| Total nonaCB | 118 | 23 | 132 | 11 | 278 | 41 | 294 | 41 | 257 | 20 | 279 | 70 | 288 | 23 |
| DecaCB | 91.1 | 17.9 | 103 | 8 | 142 | 21 | 146 | 21 | 139 | 11 | 146 | 37 | 150 | 12 |
| Total PCB | 2673.7 | 524 | 2709.6 | 219 | 9780.6 | 1438 | 13058.9 | 1839 | 8969.2 | 712 | 9589.4 | 2397 | 16200.1 | 1286 |

PCB = polychlorinated
pg/g = picogram per g
µg/g = microgram per

**Table 3-9
Benthic Worm Tissue PCB Results, 28-Day Bioaccumulation Test---Dark Head Cove 2020**

| Sample | TI-304-A | | TI-304-B | | TI-304-C | | TI-304-D | | TI-304-E | | TI-305-A | | TI-305-B | | TI-305-C | |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids |
| Percent lipids | | 1.05 | | 1.05 | | 0.74 | | 0.88 | | 0.82 | | 1.01 | | 1.4 | | 1.06 |
| PCB-1 | < 8.6 | <1 | < 10.1 | <1 | < 5.05 | <1 | < 4.54 | <1 | < 10.7 | <1 | < 29.6 | <3 | < 9.7 | <1 | < 30.1 | <3 |
| PCB-2 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-3 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-4/10 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-5/8 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-6 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-7/9 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-11 | < 14.5 | <1 U | < 20.9 | <2 U | < 5.05 | <1 U | < 18.1 | <2 U | < 19.8 | <2 U | 50.5 | 5 | < 9.7 | <1 U | 52 | 4.9 |
| PCB-12/13 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-14 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-15 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | 6.78 | 0.77 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-16/32 | 22.5 | 2.1 | 22.3 | 2.1 | < 5.05 | <1 U | 30.9 | 3.5 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-17 | < 8.6 | <1 U | < 10.1 | <1 U | 5.12 | 0.69 | 7 | 0.8 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-18 | < 8.6 | <1 U | 10.3 | 1 | 7.85 | 1.06 | 10.5 | 1.2 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-19 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-20/21/33 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | 16.1 | 1.8 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-22 | 9 | 0.86 | < 10.1 | <1 U | 6.39 | 0.86 | 13.6 | 1.5 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-23 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-24/27 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-25 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-26 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-28 | 25.1 | 2.4 | 22.6 | 2.2 | 13.8 | 1.9 | 27.6 | 3.1 | 20.6 | 2.5 | < 29.6 | <3 U | < 9.7 | <1 U | 37.5 | 3.5 |
| PCB-29 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-30 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-31 | 17.6 | 1.7 | 12.9 | 1.2 | 11.5 | 1.6 | 15.8 | 1.8 | 13.6 | 1.7 | < 29.6 | <3 U | 14.1 | 1 | < 30.1 | <3 U |
| PCB-34 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-35 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-36 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-37 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-38 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | 9.83 | 1.12 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-39 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-40 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-41/64/71/72 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | 48.8 | 5.5 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-42/59 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-43/49 | 147 | 14 | 140 | 13 | 45.1 | 6.1 | 284 | 32 | 84.2 | 10.3 | 213 | 21 | 90.9 | 6.5 | 176 | 17 |
| PCB-44 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | 8.37 | 0.95 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-45 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-46 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-47 | 234 | 22 | 230 | 22 | 69.6 | 9.4 | 464 | 53 | 137 | 17 | 332 | 33 | 137 | 10 | 272 | 26 |
| PCB-48/75 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | 11.4 | 1.3 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-50 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-51 | 82.6 | 7.9 | 86.3 | 8.2 | 27.2 | 3.7 | 217 | 25 | < 10.7 | <1 U | 127 | 13 | 53.5 | 3.8 | 92.8 | 8.8 |
| PCB-52/69 | 49.9 | 4.8 | 50.9 | 4.8 | 17 | 2.3 | 94.2 | 10.7 | < 10.7 | <1 U | 87.6 | 8.7 | 31.9 | 2.3 | 65.7 | 6.2 |
| PCB-53 | 54.9 | 5.2 | 60.2 | 5.7 | 17.8 | 2.4 | 145 | 16 | 37.8 | 4.6 | 79.5 | 7.9 | 42.3 | 3 | < 30.1 | <3 U |
| PCB-54 | 12 | 1.1 | 11.7 | 1.1 | < 5.05 | <1 U | 39.8 | 4.5 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-55 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-56/60 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-57 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-58 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-61/70 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | 18.3 | 2.1 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-62 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-63 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-65 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |

**Table 3-9
Benthic Worm Tissue PCB Results, 28-Day Bioaccumulation Test---Dark Head Cove 2020**

| Sample Analyte | TI-304-A | | TI-304-B | | TI-304-C | | TI-304-D | | TI-304-E | | TI-305-A | | TI-305-B | | TI-305-C | |
|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids |
| PCB-66/76 | 17.8 | 1.7 | < 10.1 | <1 U | < 5.05 | <1 U | 21.5 | 2.4 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-67 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-68 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-73 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | 13.2 | 1.5 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-74 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | 5.91 | 0.67 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-77 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-78 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-79 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-80 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-81 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-82 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-83 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-84/92 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | 41.3 | 4.7 | < 10.7 | <1 U | < 29.6 | <3 U | 27.7 | 2 | < 30.1 | <3 U |
| PCB-85/116 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-86 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-87/117/125 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | 21.1 | 2.4 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-88/91 | 44.4 | 4.2 | 48.4 | 4.6 | 17.2 | 2.3 | 115 | 13 | 31.7 | 3.9 | 67 | 6.6 | 38 | 2.7 | < 30.1 | <3 U |
| PCB-89 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-90/101 | 100 | 9.5 | 104 | 10 | 35.9 | 4.9 | 184 | 21 | 63.7 | 7.8 | 151 | 15 | 86.5 | 6.2 | 151 | 14 |
| PCB-93 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-94 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | 8.51 | 0.97 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-95/98/102 | 66.5 | 6.3 | 60.8 | 5.8 | 21.2 | 2.9 | 107 | 12 | 45.3 | 5.5 | 94.4 | 9.3 | 55.9 | 4 | < 30.1 | <3 U |
| PCB-96 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | 7.08 | 0.8 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-97 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | 8.99 | 1.02 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-99 | 62.7 | 6 | 60.4 | 5.8 | 23.2 | 3.1 | 117 | 13 | 42.4 | 5.2 | 104 | 10 | 57.8 | 4.1 | 93.1 | 8.8 |
| PCB-100 | 52.8 | 5 | 46.6 | 4.4 | 16.4 | 2.2 | 132 | 15 | 34.3 | 4.2 | < 29.6 | <3 U | 31.6 | 2.3 | 63.9 | 6 |
| PCB-103 | 20.4 | 1.9 | < 10.1 | <1 U | 7.5 | 1.01 | 57.3 | 6.5 | 13.2 | 1.6 | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-104 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | 17.4 | 2 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-105 | 12.9 | 1.2 | 12 | 1.1 | 5.93 | 0.8 | 16.3 | 1.9 | 11.1 | 1.4 | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-106/118 | 49.4 | 4.7 | < 10.1 | <1 U | 17.9 | 2.4 | 67.8 | 7.7 | 34.5 | 4.2 | 79.3 | 7.9 | 49.1 | 3.5 | < 30.1 | <3 U |
| PCB-107/109 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-108/112 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-110 | 62.1 | 5.9 | 56.1 | 5.3 | 19.3 | 2.6 | 86.3 | 9.8 | 38.5 | 4.7 | 88.3 | 8.7 | 57.6 | 4.1 | 82.3 | 7.8 |
| PCB-111/115 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-113 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-114 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-119 | < 8.6 | <1 U | 16.5 | 1.6 | < 5.05 | <1 U | 50.5 | 5.7 | < 10.7 | <1 U | < 29.6 | <3 U | 12.2 | 0.9 | < 30.1 | <3 U |
| PCB-120 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-121 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-122 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-123 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-124 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-126 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-127 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-128/162 | 25.2 | 2.4 | < 10.1 | <1 U | 10.5 | 1.4 | 29.6 | 3.4 | < 10.7 | <1 U | < 29.6 | <3 U | 22.8 | 1.6 | < 30.1 | <3 U |
| PCB-129 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | 5.52 | 0.63 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-130 | 24 | 2.3 | 19.3 | 1.8 | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | 17.1 | 1.2 | < 30.1 | <3 U |
| PCB-131/133 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | 18.9 | 2.1 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-132/161 | 65.3 | 6.2 | 52.9 | 5 | 21.2 | 2.9 | 78.4 | 8.9 | 41.2 | 5 | < 29.6 | <3 U | 38 | 2.7 | 64.1 | 6 |
| PCB-134/143 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | 15.4 | 1.8 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-135 | 42.8 | 4.1 | 35.2 | 3.4 | < 5.05 | <1 U | 59.6 | 6.8 | 27.4 | 3.3 | 71.6 | 7.1 | 31.5 | 2.3 | 38.7 | 3.7 |
| PCB-136 | 52.7 | 5 | < 10.1 | <1 U | 22.2 | 3 | 83.6 | 9.5 | 38.1 | 4.6 | 80.3 | 8 | 39.7 | 2.8 | 53.8 | 5.1 |
| PCB-137 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-138/163/164 | 347 | 33 | 237 | 23 | 110 | 15 | 428 | 49 | 199 | 24 | 405 | 40 | 209 | 15 | 326 | 31 |

**Table 3-9
Benthic Worm Tissue PCB Results, 28-Day Bioaccumulation Test---Dark Head Cove 2020**

| Sample Analyte | TI-304-A | | TI-304-B | | TI-304-C | | TI-304-D | | TI-304-E | | TI-305-A | | TI-305-B | | TI-305-C | |
|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids |
| PCB-139/149 | 316 | 30 | 271 | 26 | 131 | 18 | 474 | 54 | 213 | 26 | 414 | 41 | 221 | 16 | 333 | 31 |
| PCB-140 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-141 | 52.4 | 5 | 39.7 | 3.8 | 10.4 | 1.4 | 70.4 | 8 | 20.4 | 2.5 | 53.3 | 5.3 | 29.3 | 2.1 | 52.9 | 5 |
| PCB-142 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-144 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | 16.2 | 1.8 | < 10.7 | <1 U | < 29.6 | <3 U | 14 | 1 | < 30.1 | <3 U |
| PCB-145 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-146/165 | 78.9 | 7.5 | 61.4 | 5.8 | 28.8 | 3.9 | 108 | 12 | 54.1 | 6.6 | 119 | 12 | 57.7 | 4.1 | 87.9 | 8.3 |
| PCB-147 | 19.4 | 1.8 | < 10.1 | <1 U | 8.21 | 1.11 | 72.1 | 8.2 | 15.4 | 1.9 | 30.4 | 3 | 15 | 1.1 | < 30.1 | <3 U |
| PCB-148 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-150 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | 15.2 | 1.7 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-151 | 93.2 | 8.9 | 77.7 | 7.4 | < 5.05 | <1 U | 129 | 15 | 57.7 | 7 | 116 | 11 | < 9.7 | <1 U | 94.9 | 9 |
| PCB-152 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-153 | 401 | 38 | 317 | 30 | 154 | 21 | 608 | 69 | 265 | 32 | 518 | 51 | 258 | 18 | 434 | 41 |
| PCB-154 | 31.9 | 3 | 28 | 2.7 | 14.6 | 2 | 64.9 | 7.4 | 25.4 | 3.1 | < 29.6 | <3 U | < 9.7 | <1 U | 51 | 4.8 |
| PCB-155 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-156 | 19 | 1.8 | 13.8 | 1.3 | 6.11 | 0.83 | 30 | 3.4 | < 10.7 | <1 U | < 29.6 | <3 U | 10.7 | 0.8 | < 30.1 | <3 U |
| PCB-157 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-158/160 | 22.9 | 2.2 | < 10.1 | <1 U | < 5.05 | <1 U | 31.5 | 3.6 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-159 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-166 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-167 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | 13.8 | 1.6 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-168 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-169 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-170 | 168 | 16 | 132 | 13 | 54.5 | 7.4 | 272 | 31 | 95.4 | 11.6 | 210 | 21 | 87.1 | 6.2 | 175 | 17 |
| PCB-171 | 64.8 | 6.2 | 49.6 | 4.7 | 29.3 | 4 | 84.4 | 9.6 | 48.3 | 5.9 | 80.5 | 8 | 44.5 | 3.2 | < 30.1 | <3 U |
| PCB-172 | 26 | 2.5 | 16.5 | 1.6 | 7.72 | 1.04 | 41.4 | 4.7 | < 10.7 | <1 U | 41.6 | 4.1 | 14.3 | 1 | < 30.1 | <3 U |
| PCB-173 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | 6.77 | 0.77 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-174 | 182 | 17 | 144 | 14 | 68 | 9.2 | 255 | 29 | 112 | 14 | 250 | 25 | 116 | 8 | 192 | 18 |
| PCB-175 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | 13.7 | 1.6 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-176 | 42.9 | 4.1 | < 10.1 | <1 U | 21.2 | 2.9 | 55.8 | 6.3 | 35 | 4.3 | < 29.6 | <3 U | 27.3 | 2 | < 30.1 | <3 U |
| PCB-177 | 196 | 19 | 160 | 15 | 94.5 | 12.8 | 244 | 28 | 160 | 20 | 259 | 26 | 141 | 10 | 227 | 21 |
| PCB-178 | < 8.6 | <1 U | 66.1 | 6.3 | 41.5 | 5.6 | 97.3 | 11.1 | 66.7 | 8.1 | 125 | 12 | 57.6 | 4.1 | 91.1 | 8.6 |
| PCB-179 | 133 | 13 | 114 | 11 | 69.9 | 9.4 | 174 | 20 | 109 | 13 | 193 | 19 | 95.8 | 6.8 | 144 | 14 |
| PCB-180 | 293 | 28 | 210 | 20 | 56.9 | 7.7 | 546 | 62 | 106 | 13 | 420 | 42 | 162 | 12 | 349 | 33 |
| PCB-181 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-182/186 | 471 | 45 | 357 | 34 | 243 | 33 | 609 | 69 | 406 | 50 | 670 | 66 | 345 | 25 | 550 | 52 |
| PCB-183 | 111 | 11 | 90 | 8.6 | 45.5 | 6.1 | 174 | 20 | 78.7 | 9.6 | 162 | 16 | 73 | 5.2 | 128 | 12 |
| PCB-184 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-185 | 23.7 | 2.3 | < 10.1 | <1 U | 10.6 | 1.4 | 30.6 | 3.5 | 16.6 | 2 | < 29.6 | <3 U | 16.3 | 1.2 | 30.1 | 2.8 |
| PCB-186 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-188 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | 5.09 | 0.58 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-189 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | 12.4 | 1.4 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-190 | 50.8 | 4.8 | 39.3 | 3.7 | 21.9 | 3 | 72.1 | 8.2 | < 10.7 | <1 U | 73.2 | 7.2 | 30.1 | 2.2 | 58.8 | 5.5 |
| PCB-191 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | 9.79 | 1.11 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-192 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-193 | 34 | 3.2 | 29.2 | 2.8 | 15.1 | 2 | 47.2 | 5.4 | 29.4 | 3.6 | 42.7 | 4.2 | 23.3 | 1.7 | 37.5 | 3.5 |
| PCB-194 | 81.8 | 7.8 | < 10.1 | <1 U | 23.4 | 3.2 | 157 | 18 | 40.6 | 5 | 159 | 16 | 45.8 | 3.3 | 98.9 | 9.3 |
| PCB-195 | 75.1 | 7.2 | 65.9 | 6.3 | 38.7 | 5.2 | 103 | 12 | 64.4 | 7.9 | 111 | 11 | < 9.7 | <1 U | 87.9 | 8.3 |
| PCB-196/203 | 139 | 13 | 118 | 11 | 69.6 | 9.4 | 224 | 25 | 106 | 13 | 244 | 24 | 89.2 | 6.4 | 177 | 17 |
| PCB-197 | < 8.6 | <1 U | < 10.1 | <1 U | 8.88 | 1.2 | < 4.54 | <1 U | 14.3 | 1.7 | < 29.6 | <3 U | 12 | 0.9 | < 30.1 | <3 U |
| PCB-198 | 10.9 | 1 | < 10.1 | <1 U | < 5.05 | <1 U | 12.6 | 1.4 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-199 | 131 | 12 | 105 | 10 | 59.8 | 8.1 | 208 | 24 | 97.5 | 11.9 | 221 | 22 | 74.9 | 5.4 | 140 | 13 |
| PCB-200 | 21.5 | 2 | < 10.1 | <1 U | < 5.05 | <1 U | 29.2 | 3.3 | 19.2 | 2.3 | 38.6 | 3.8 | 15.4 | 1.1 | < 30.1 | <3 U |
| PCB-201 | 48.3 | 4.6 | 44.6 | 4.2 | < 5.05 | <1 U | 61.2 | 7 | < 10.7 | <1 U | 77.1 | 7.6 | < 9.7 | <1 U | 70.1 | 6.6 |

**Table 3-9
Benthic Worm Tissue PCB Results, 28-Day Bioaccumulation Test---Dark Head Cove 2020**

| Sample | TI-304-A | | TI-304-B | | TI-304-C | | TI-304-D | | TI-304-E | | TI-305-A | | TI-305-B | | TI-305-C | |
|------------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|---------------|---------------|-------------|---------------|-------------|
| | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids |
| PCB-202 | 92.5 | 8.8 | 81 | 7.7 | 59.6 | 8.1 | 101 | 11 | 111 | 14 | 157 | 16 | 81.8 | 5.8 | 139 | 13 |
| PCB-204 | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-205 | 11.5 | 1.1 | < 10.1 | <1 U | < 5.05 | <1 U | 13.7 | 1.6 | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| PCB-206 | 50 | 4.8 | 47.4 | 4.5 | 29.8 | 4 | 70.4 | 8 | 47.2 | 5.8 | 89.9 | 8.9 | < 9.7 | <1 U | 65 | 6.1 |
| PCB-207 | 13.6 | 1.3 | 15.7 | 1.5 | < 5.05 | <1 U | 16.2 | 1.8 | 15.1 | 1.8 | < 29.6 | <3 U | 12.9 | 0.9 | < 30.1 | <3 U |
| PCB-208 | 67.5 | 6.4 | 60.9 | 5.8 | 40.7 | 5.5 | 69.8 | 7.9 | 85.6 | 10.4 | 105 | 10 | 63.7 | 4.6 | 105 | 10 |
| PCB-209 | 96.2 | 9.2 | 79.5 | 7.6 | 59.3 | 8 | 96.1 | 10.9 | 114 | 14 | 138 | 14 | 87.4 | 6.2 | 148 | 14 |
| Total monoCB | < 8.6 | <1 U | < 10.1 | <1 U | < 5.05 | <1 U | < 4.54 | <1 U | < 10.7 | <1 U | < 29.6 | <3 U | < 9.7 | <1 U | < 30.1 | <3 U |
| Total diCB | < 14.5 | <1 U | < 20.9 | <2 U | < 5.05 | <1 U | 6.8 | 0.77 | 19.8 | 2.4 | 50.5 | 5 | < 9.7 | <1 U | 52 | 4.9 |
| Total triCB | 74.2 | 7.1 | 68.2 | 6.5 | 44.6 | 6 | 131 | 15 | < 34.1 | <4 U | < 29.6 | #VALUE! ##### | 14.1 | 1 | 37.5 | 3.5 |
| Total tetraCB | 598 | 57 | 579 | 55 | 177 | 24 | 1370 | 156 | 259 | 32 | 839 | 83 | 356 | 25 | 607 | 57 |
| Total pentaCB | 472 | 45 | 405 | 39 | 165 | 22 | 1040 | 118 | 315 | 38 | 584 | 58 | 417 | 30 | 391 | 37 |
| Total hexaCB | 1590 | 151 | 1150 | 110 | 516 | 70 | 2350 | 267 | 956 | 117 | 1810 | 179 | 964 | 69 | 1540 | 145 |
| Total heptaCB | 1800 | 171 | 1410 | 134 | 780 | 105 | 2750 | 313 | 1260 | 154 | 2530 | 250 | 1230 | 88 | 1980 | 186 |
| Total octaCB | 611 | 58 | 415 | 40 | 260 | 35 | 909 | 103 | 453 | 55 | 1010 | 100 | 319 | 23 | 713 | 67 |
| Total nonaCB | 131 | 12 | 124 | 12 | 70.5 | 9.5 | 156 | 18 | 148 | 18 | 195 | 19 | 76.6 | 5.5 | 170 | 16 |
| DecaCB | 96.2 | 9.2 | 79.5 | 7.6 | 59.3 | 8 | 96.1 | 10.9 | 114 | 14 | 138 | 14 | 87.4 | 6.2 | 148 | 14 |
| Total PCB | 5372.4 | 512 | 4230.7 | 403 | 2072.4 | 280 | 8808.9 | 1001 | 3524.8 | 430 | 7156.5 | 709 | 3464.1 | 247 | 5638.5 | 532 |

PCB = polychlorinated
pg/g = picogram per g
µg/g = microgram per

Table 3-9
Benthic Worm Tissue PCB Results, 28-Day Bioaccumulation Test---Dark Head Cove 2020

| Sample | TI-305-D | | TI-305-E | | CONTROL-A | | CONTROL-B | | CONTROL-C | | CONTROL-D | | CONTROL-E | |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids |
| Percent lipids | | 1.07 | | 0.99 | | 0.57 | | 0.6 | | 0.67 | | 0.63 | | 0.46 |
| PCB-1 | < 13.5 | <1 | < 16.4 | <2 | < 4.45 | <1 | < 5.49 | <1 | < 6.56 | <1 | < 7.65 | <1 | < 5.49 | <1 |
| PCB-2 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-3 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-4/10 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-5/8 | < 13.5 | <1 U | < 16.4 | <2 U | 10.2 | 1.8 | 11.6 | 1.9 | 13.5 | 2 | < 7.65 | <1 U | 15.8 | 3.4 |
| PCB-6 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-7/9 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-11 | 29.4 | 2.7 | 37.6 | 3.8 | 47.4 | 8.3 | 46.8 | 7.8 | 45.3 | 6.8 | 54.7 | 8.7 | 45.1 | 9.8 |
| PCB-12/13 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-14 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-15 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | 5.99 | 1.3 |
| PCB-16/32 | < 13.5 | <1 U | < 16.4 | <2 U | 10.1 | 1.8 | 15.3 | 2.6 | 14.9 | 2.2 | < 7.65 | <1 U | 14.8 | 3.2 |
| PCB-17 | < 13.5 | <1 U | < 16.4 | <2 U | 6.95 | 1.22 | 9.05 | 1.51 | 11.2 | 1.7 | 9.26 | 1.47 | 10.8 | 2.3 |
| PCB-18 | < 13.5 | <1 U | < 16.4 | <2 U | 10.4 | 1.8 | 12.1 | 2 | 15.5 | 2.3 | 13.1 | 2.1 | 17 | 3.7 |
| PCB-19 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-20/21/33 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-22 | < 13.5 | <1 U | < 16.4 | <2 U | 4.83 | 0.85 | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | 6.43 | 1.4 |
| PCB-23 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-24/27 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-25 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-26 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-28 | 22.4 | 2.1 | < 16.4 | <2 U | 11.9 | 2.1 | 15.6 | 2.6 | < 6.56 | <1 U | 13.4 | 2.1 | 16.1 | 3.5 |
| PCB-29 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-30 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-31 | 17.4 | 1.6 | < 16.4 | <2 U | 9.03 | 1.58 | 10.6 | 1.8 | 10.7 | 1.6 | < 7.65 | <1 U | 13.7 | 3 |
| PCB-34 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-35 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-36 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-37 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-38 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-39 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-40 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-41/64/71/72 | < 13.5 | <1 U | < 16.4 | <2 U | 25.1 | 4.4 | 29.5 | 4.9 | 33.2 | 5 | 31.1 | 4.9 | 30.5 | 6.6 |
| PCB-42/59 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-43/49 | 118 | 11 | 50 | 5.1 | 33.5 | 5.9 | 46.9 | 7.8 | 45.2 | 6.7 | 41.1 | 6.5 | 45.4 | 9.9 |
| PCB-44 | < 13.5 | <1 U | < 16.4 | <2 U | 13.1 | 2.3 | 16.8 | 2.8 | < 6.56 | <1 U | < 7.65 | <1 U | 17.3 | 3.8 |
| PCB-45 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-46 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-47 | 184 | 17 | 86.1 | 8.7 | 21 | 3.7 | 36.5 | 6.1 | 27.6 | 4.1 | 24.1 | 3.8 | 25.8 | 5.6 |
| PCB-48/75 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-50 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-51 | < 13.5 | <1 U | 32.3 | 3.3 | < 4.45 | <1 U | 9.09 | 1.52 | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-52/69 | 45.2 | 4.2 | < 16.4 | <2 U | 26.5 | 4.6 | 32.7 | 5.5 | 33.3 | 5 | 29.4 | 4.7 | 30.9 | 6.7 |
| PCB-53 | 47 | 4.4 | 21.4 | 2.2 | < 4.45 | <1 U | 8.51 | 1.42 | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-54 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-55 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-56/60 | < 13.5 | <1 U | < 16.4 | <2 U | 9.83 | 1.72 | < 5.49 | <1 U | 13.1 | 2 | < 7.65 | <1 U | 11.8 | 2.6 |
| PCB-57 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-58 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-61/70 | < 13.5 | <1 U | < 16.4 | <2 U | 17.1 | 3 | 17.3 | 2.9 | 21.7 | 3.2 | 20.7 | 3.3 | 21.8 | 4.7 |
| PCB-62 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-63 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-65 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |

Table 3-9
Benthic Worm Tissue PCB Results, 28-Day Bioaccumulation Test---Dark Head Cove 2020

| Sample | TI-305-D | | TI-305-E | | CONTROL-A | | CONTROL-B | | CONTROL-C | | CONTROL-D | | CONTROL-E | |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids |
| PCB-66/76 | < 13.5 | <1 U | < 16.4 | <2 U | 18.5 | 3.2 | 19 | 3.2 | 22.2 | 3.3 | 18.2 | 2.9 | 19.7 | 4.3 |
| PCB-67 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-68 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-73 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-74 | < 13.5 | <1 U | < 16.4 | <2 U | 9.42 | 1.65 | 8.06 | 1.34 | 10.7 | 1.6 | < 7.65 | <1 U | 9.26 | 2.01 |
| PCB-77 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-78 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-79 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-80 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-81 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-82 | < 13.5 | <1 U | < 16.4 | <2 U | 5.01 | 0.88 | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | 5.53 | 1.2 |
| PCB-83 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-84/92 | < 13.5 | <1 U | < 16.4 | <2 U | 28.8 | 5.1 | 29.4 | 4.9 | 34.8 | 5.2 | 33.8 | 5.4 | 33.9 | 7.4 |
| PCB-85/116 | < 13.5 | <1 U | < 16.4 | <2 U | 9.56 | 1.68 | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-86 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-87/117/125 | < 13.5 | <1 U | < 16.4 | <2 U | 15.2 | 2.7 | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-88/91 | 45.6 | 4.3 | < 16.4 | <2 U | 26.2 | 4.6 | 33.1 | 5.5 | 35.6 | 5.3 | 31.3 | 5 | 33 | 7.2 |
| PCB-89 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-90/101 | 101 | 9 | 51.5 | 5.2 | 116 | 20 | 114 | 19 | 123 | 18 | 115 | 18 | 119 | 26 |
| PCB-93 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-94 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-95/98/102 | 61 | 5.7 | < 16.4 | <2 U | 53.7 | 9.4 | 54.6 | 9.1 | 63.1 | 9.4 | 58.8 | 9.3 | 58.8 | 12.8 |
| PCB-96 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-97 | < 13.5 | <1 U | < 16.4 | <2 U | 28.4 | 5 | 29.1 | 4.9 | < 6.56 | <1 U | 29.4 | 4.7 | 28.9 | 6.3 |
| PCB-99 | 70.5 | 6.6 | 30.4 | 3.1 | 95.1 | 16.7 | 95.6 | 15.9 | 106 | 16 | 96.9 | 15.4 | 92.1 | 20 |
| PCB-100 | < 13.5 | <1 U | 19.3 | 1.9 | < 4.45 | <1 U | 6.38 | 1.06 | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-103 | < 13.5 | <1 U | < 16.4 | <2 U | 5.14 | 0.9 | 6.3 | 1.05 | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-104 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-105 | < 13.5 | <1 U | < 16.4 | <2 U | 17 | 3 | 16.4 | 2.7 | 16.8 | 2.5 | 15.7 | 2.5 | 17.4 | 3.8 |
| PCB-106/118 | 53 | 5 | < 16.4 | <2 U | 65 | 11.4 | 57.7 | 9.6 | 66.1 | 9.9 | 65.6 | 10.4 | 64.5 | 14 |
| PCB-107/109 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-108/112 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-110 | 60 | 5.6 | 33.6 | 3.4 | 69.5 | 12.2 | 63.1 | 10.5 | 70.1 | 10.5 | 69.8 | 11.1 | 69 | 15 |
| PCB-111/115 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-113 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-114 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-119 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | 5.52 | 0.92 | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-120 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-121 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-122 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-123 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-124 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-126 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-127 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-128/162 | < 13.5 | <1 U | < 16.4 | <2 U | 17.2 | 3 | 16.6 | 2.8 | 18.1 | 2.7 | 18.4 | 2.9 | 16.5 | 3.6 |
| PCB-129 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-130 | 20.2 | 1.9 | < 16.4 | <2 U | 11.6 | 2 | 8.18 | 1.36 | < 6.56 | <1 U | < 7.65 | <1 U | 10.1 | 2.2 |
| PCB-131/133 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-132/161 | 44.9 | 4.2 | < 16.4 | <2 U | 14.8 | 2.6 | 12.7 | 2.1 | 17.4 | 2.6 | 15.9 | 2.5 | 18.3 | 4 |
| PCB-134/143 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-135 | 35.4 | 3.3 | 20.8 | 2.1 | < 4.45 | <1 U | 16.8 | 2.8 | 20.8 | 3.1 | 17.6 | 2.8 | 16.5 | 3.6 |
| PCB-136 | 47.1 | 4.4 | 26.9 | 2.7 | 19 | 3.3 | < 5.49 | <1 U | 22.1 | 3.3 | < 7.65 | <1 U | 20.5 | 4.5 |
| PCB-137 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-138/163/164 | 258 | 24 | 141 | 14 | 152 | 27 | 121 | 20 | 146 | 22 | 146 | 23 | 144 | 31 |

Table 3-9
Benthic Worm Tissue PCB Results, 28-Day Bioaccumulation Test---Dark Head Cove 2020

| Sample | TI-305-D | | TI-305-E | | CONTROL-A | | CONTROL-B | | CONTROL-C | | CONTROL-D | | CONTROL-E | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids |
| PCB-139/149 | 273 | 26 | 148 | 15 | 152 | 27 | 146 | 24 | 151 | 23 | 152 | 24 | 139 | 30 |
| PCB-140 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-141 | 31.1 | 2.9 | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-142 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-144 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-145 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-146/165 | 75.2 | 7 | 38.6 | 3.9 | 49.1 | 8.6 | 42.9 | 7.2 | 48.3 | 7.2 | 47.6 | 7.6 | 46.6 | 10.1 |
| PCB-147 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | 10.3 | 1.7 | < 6.56 | <1 U | < 7.65 | <1 U | 10 | 2.17 |
| PCB-148 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-150 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | 5.56 | 0.93 | 7.64 | 1.14 | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-151 | 78.4 | 7.3 | 43.4 | 4.4 | 35.8 | 6.3 | 26.2 | 4.4 | 28.3 | 4.2 | 31.2 | 5 | 28.4 | 6.2 |
| PCB-152 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-153 | 341 | 32 | 171 | 17 | 180 | 32 | 165 | 28 | 190 | 28 | 182 | 29 | 183 | 40 |
| PCB-154 | < 13.5 | <1 U | 16.4 | 1.7 | 24.8 | 4.4 | 26.3 | 4.4 | 26.6 | 4 | 23.7 | 3.8 | 21.9 | 4.8 |
| PCB-155 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | 8.78 | 1.31 | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-156 | 15.5 | 1.4 | < 16.4 | <2 U | 5.7 | 1 | 5.8 | 0.97 | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-157 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-158/160 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-159 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | 5.64 | 0.94 | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-166 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-167 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-168 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-169 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-170 | 108 | 10 | 61.1 | 6.2 | 16.2 | 2.8 | 15.3 | 2.6 | 18 | 2.7 | 18.2 | 2.9 | 17.2 | 3.7 |
| PCB-171 | 50.5 | 4.7 | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | 7.61 | 1.14 | < 7.65 | <1 U | 7.35 | 1.6 |
| PCB-172 | 13.8 | 1.3 | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-173 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-174 | 137 | 13 | 74.9 | 7.6 | 11.9 | 2.1 | 9.56 | 1.59 | < 6.56 | <1 U | 12 | 1.9 | 15.4 | 3.3 |
| PCB-175 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-176 | 36.1 | 3.4 | < 16.4 | <2 U | 5.84 | 1.02 | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | 5.55 | 1.21 |
| PCB-177 | 166 | 16 | 113 | 11 | 34.7 | 6.1 | 26.8 | 4.5 | 30.5 | 4.6 | 31.6 | 5 | 29.9 | 6.5 |
| PCB-178 | 73.7 | 6.9 | 50.4 | 5.1 | 21.4 | 3.8 | 19.6 | 3.3 | 24.2 | 3.6 | 20.9 | 3.3 | 21 | 4.6 |
| PCB-179 | 122 | 11 | 77.7 | 7.8 | 27.3 | 4.8 | 23 | 3.8 | < 6.56 | <1 U | 30.2 | 4.8 | < 5.49 | <1 U |
| PCB-180 | 180 | 17 | 73.5 | 7.4 | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | 5.99 | 1.3 |
| PCB-181 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-182/186 | 446 | 42 | 302 | 31 | 159 | 28 | 133 | 22 | 163 | 24 | 163 | 26 | 155 | 34 |
| PCB-183 | 89.4 | 8.4 | 49.1 | 5 | 11.1 | 1.9 | < 5.49 | <1 U | 11.7 | 1.7 | 13.5 | 2.1 | < 5.49 | <1 U |
| PCB-184 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-185 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-186 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-188 | < 13.5 | <1 U | < 16.4 | <2 U | 12.3 | 2.2 | 12.3 | 2.1 | 13.6 | 2 | 13.6 | 2.2 | 11.3 | 2.5 |
| PCB-189 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-190 | 42 | 3.9 | 25.4 | 2.6 | 7.71 | 1.35 | < 5.49 | <1 U | < 6.56 | <1 U | 8.88 | 1.41 | 7 | 1.52 |
| PCB-191 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-192 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-193 | 27.8 | 2.6 | 20.2 | 2 | 8.93 | 1.57 | 8.08 | 1.35 | 10.8 | 1.6 | 11 | 1.7 | < 5.49 | <1 U |
| PCB-194 | 57.3 | 5.4 | 28.4 | 2.9 | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | 6.96 | 1.51 |
| PCB-195 | 60.1 | 5.6 | 41.8 | 4.2 | 8.19 | 1.44 | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | 8.05 | 1.75 |
| PCB-196/203 | 122 | 11 | 69.9 | 7.1 | 21.4 | 3.8 | 21.6 | 3.6 | 26.1 | 3.9 | < 7.65 | <1 U | 24.3 | 5.3 |
| PCB-197 | < 13.5 | <1 U | < 16.4 | <2 U | 7.79 | 1.37 | 6.59 | 1.1 | < 6.56 | <1 U | < 7.65 | <1 U | 6.8 | 1.48 |
| PCB-198 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-199 | 110 | 10 | 63.8 | 6.4 | 34.1 | 6 | 34.8 | 5.8 | 43.3 | 6.5 | 36.6 | 5.8 | 37.5 | 8.2 |
| PCB-200 | 20.9 | 2 | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-201 | 55.1 | 5.1 | 47.1 | 4.8 | 25.8 | 4.5 | 27.3 | 4.6 | 29.8 | 4.4 | 25.6 | 4.1 | 25.7 | 5.6 |

**Table 3-9
Benthic Worm Tissue PCB Results, 28-Day Bioaccumulation Test---Dark Head Cove 2020**

| Sample | TI-305-D | | TI-305-E | | CONTROL-A | | CONTROL-B | | CONTROL-C | | CONTROL-D | | CONTROL-E | |
|------------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|
| | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids | pg/g wet wt | µg/g lipids |
| PCB-202 | 110 | 10 | 81.6 | 8.2 | 47 | 8.2 | 48.5 | 8.1 | 51.2 | 7.6 | 47.7 | 7.6 | 45.8 | 10 |
| PCB-204 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-205 | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| PCB-206 | 50.4 | 4.7 | 35.2 | 3.6 | 59.9 | 10.5 | 61.5 | 10.3 | 67.5 | 10.1 | 55.3 | 8.8 | 59.2 | 12.9 |
| PCB-207 | 16.6 | 1.6 | < 16.4 | <2 U | 16.3 | 2.9 | 18.7 | 3.1 | < 6.56 | <1 U | 15.6 | 2.5 | < 5.49 | <1 U |
| PCB-208 | 87.2 | 8.1 | 71.3 | 7.2 | 84.9 | 14.9 | 84.7 | 14.1 | 94.7 | 14.1 | 86.1 | 13.7 | 80.9 | 17.6 |
| PCB-209 | 121 | 11 | 91 | 9.2 | 150 | 26 | 160 | 27 | 182 | 27 | 159 | 25 | 152 | 33 |
| Total monoCB | < 13.5 | <1 U | < 16.4 | <2 U | < 4.45 | <1 U | < 5.49 | <1 U | < 6.56 | <1 U | < 7.65 | <1 U | < 5.49 | <1 U |
| Total diCB | 29.4 | 2.7 | 37.6 | 3.8 | 57.6 | 10.1 | 58.5 | 9.8 | 58.8 | 8.8 | 54.7 | 8.7 | 66.9 | 14.5 |
| Total triCB | 39.7 | 3.7 | < 16.4 | <2 U | 53.2 | 9.3 | 62.6 | 10.4 | 52.3 | 7.8 | 35.8 | 5.7 | 78.9 | 17.2 |
| Total tetraCB | 394 | 37 | 190 | 19 | 174 | 31 | 224 | 37 | 207 | 31 | 165 | 26 | 213 | 46 |
| Total pentaCB | 392 | 37 | 135 | 14 | 535 | 94 | 511 | 85 | 516 | 77 | 517 | 82 | 522 | 113 |
| Total hexaCB | 1220 | 114 | 606 | 61 | 662 | 116 | 609 | 102 | 685 | 102 | 635 | 101 | 656 | 143 |
| Total heptaCB | 1490 | 139 | 848 | 86 | 316 | 55 | 248 | 41 | 279 | 42 | 323 | 51 | 276 | 60 |
| Total octaCB | 536 | 50 | 333 | 34 | 144 | 25 | 139 | 23 | 150 | 22 | 110 | 17 | 155 | 34 |
| Total nonaCB | 154 | 14 | 106 | 11 | 161 | 28 | 165 | 28 | 162 | 24 | 157 | 25 | 140 | 30 |
| DecaCB | 121 | 11 | 91 | 9.2 | 150 | 26 | 160 | 27 | 182 | 27 | 159 | 25 | 152 | 33 |
| Total PCB | 4376.1 | 409 | 2346.6 | 237 | 2252.8 | 395 | 2177.1 | 363 | 2292.1 | 342 | 2156.5 | 342 | 2259.8 | 491 |

PCB = polychlorinated
pg/g = picogram per g
µg/g = microgram per

Table 3-10
Sediment *In Situ* Porewater and Surface Water PCB Results---Dark Head Cove, 2020

| Congener | CAS | Log Kow | Log KPE-D* | PPW-302-A | | | | PPW-302-B | | | | PPW-302-C | | | | PPW-303-A | | | |
|---|------------|---------|------------|------------|--------|----------------|-------|------------|--------|----------------|-------|------------|--------|----------------|-------|------------|--------|----------------|-------|
| | | | | % Retained | ng/g | ng/g corrected | ng/L | % Retained | ng/g | ng/g corrected | ng/L | % Retained | ng/g | ng/g corrected | ng/L | % Retained | ng/g | ng/g corrected | ng/L |
| 2,3,3',4,4',5'-Hexachlorobiphenyl | 68782-90-7 | 7.18 | 6.949 | 99% | <0.760 | U | | 99% | <0.705 | U | | 99% | <0.724 | U | | 99% | <0.704 | U | |
| 2,3,3',4,5,5'-Hexachlorobiphenyl | 39635-35-3 | 7.24 | 7.012 | 99% | <0.760 | U | | 99% | <0.705 | U | | 99% | <0.724 | U | | 99% | <0.704 | U | |
| 2,3,3',4,5',6'-Hexachlorobiphenyl | 74472-43-8 | 7.08 | 6.844 | 97% | <0.760 | U | | 97% | <0.705 | U | | 97% | <0.724 | U | | 97% | <0.704 | U | |
| 2,3,3',4',5,5'-Hexachlorobiphenyl | 39635-34-2 | 7.24 | 7.012 | 99% | <0.760 | U | | 99% | <0.705 | U | | 99% | <0.724 | U | | 99% | <0.704 | U | |
| 2,3,3',4',5,6'-Hexachlorobiphenyl | 74472-44-9 | 6.96 | 6.718 | 90% | 1.21 | J | 11.8 | 90% | 1.64 | | 15.9 | 90% | 0.823 | J | 8.0 | 90% | 1.34 | J | 13.0 |
| 2,3,3',5,5',6'-Hexachlorobiphenyl | 74472-46-1 | 7.05 | 6.8125 | 95% | <0.760 | U | | 95% | <0.705 | U | | 95% | <0.724 | U | | 95% | <0.704 | U | |
| 2,3,4,4',5,6'-Hexachlorobiphenyl | 41411-63-6 | 6.93 | 6.6865 | 88% | <0.760 | U | | 88% | <0.705 | U | | 88% | <0.724 | U | | 88% | <0.704 | U | |
| 2,3,4,4',5,5'-Hexachlorobiphenyl | 52663-72-6 | 7.27 | 7.0435 | 99% | <0.760 | U | | 99% | <0.705 | U | | 99% | <0.724 | U | | 99% | <0.704 | U | |
| 2,3,4,4',5,6'-Hexachlorobiphenyl | 59291-65-5 | 7.11 | 6.8755 | 99% | <0.760 | U | | 99% | <0.705 | U | | 99% | <0.724 | U | | 99% | <0.704 | U | |
| 3,3',4,4',5,5'-Hexachlorobiphenyl | 32774-16-6 | 7.42 | 7.201 | 99% | <0.760 | U | | 99% | <0.705 | U | | 99% | <0.724 | U | | 99% | <0.704 | U | |
| 2,2',3,3',4,4',5'-Heptachlorobiphenyl | 35065-30-6 | 7.27 | 7.0435 | 99% | 1.59 | | 159.0 | 99% | 1.97 | | 197.0 | 99% | 1.2 | | 120.0 | 99% | 1.83 | | 183.0 |
| 2,2',3,3',4,4',6'-Heptachlorobiphenyl | 52663-71-5 | 7.11 | 6.8755 | 99% | 0.755 | J | 79.4 | 99% | 1.1 | | 115.7 | 99% | <0.724 | U | | 99% | 0.923 | | 97.1 |
| 2,2',3,3',4,5,5'-Heptachlorobiphenyl | 52663-74-8 | 7.33 | 7.1065 | 99% | <0.760 | U | | 99% | 0.676 | J | 67.6 | 99% | <0.724 | U | | 99% | <0.704 | U | |
| 2,2',3,3',4,5,6'-Heptachlorobiphenyl | 68194-16-1 | 7.02 | 6.781 | 93% | <0.760 | U | | 93% | <0.705 | U | | 93% | <0.724 | U | | 93% | <0.704 | U | |
| 2,2',3,3',4,5,6'-Heptachlorobiphenyl | 38411-25-5 | 7.11 | 6.8755 | 99% | 2.03 | | 213.6 | 99% | 3.02 | | 317.8 | 99% | 1.97 | | 206.3 | 99% | 2.5 | | 263.1 |
| 2,2',3,3',4,6,6'-Heptachlorobiphenyl | 52663-65-7 | 6.76 | 6.508 | 77% | 0.596 | J | 2.6 | 77% | 0.797 | | 3.5 | 77% | <0.724 | U | | 77% | 0.579 | J | 2.5 |
| 2,2',3,3',4,5,6'-Heptachlorobiphenyl | 52663-70-4 | 7.08 | 6.844 | 97% | 1.18 | | 41.9 | 97% | 2.1 | | 74.5 | 97% | 1.24 | | 44.0 | 97% | 1.91 | | 67.8 |
| 2,2',3,3',5,5',6'-Heptachlorobiphenyl | 52663-67-9 | 7.14 | 6.907 | 99% | <0.760 | U | | 99% | 0.602 | J | 60.2 | 99% | 0.687 | J | 68.7 | 99% | 0.882 | | 88.2 |
| 2,2',3,3',5,6,6'-Heptachlorobiphenyl | 52663-64-6 | 6.73 | 6.4765 | 75% | 1.49 | | 6.1 | 75% | 1.68 | | 6.8 | 75% | 1.12 | | 4.6 | 75% | 1.72 | | 7.0 |
| 2,2',3,4,4',5,5'-Heptachlorobiphenyl | 35065-29-3 | 7.36 | 7.138 | 99% | 2.56 | | 256.0 | 99% | 4.39 | | 439.0 | 99% | 2.51 | | 251.0 | 99% | 3.45 | | 345.0 |
| 2,2',3,4,4',5,6'-Heptachlorobiphenyl | 74472-47-2 | 7.11 | 6.8755 | 99% | <0.760 | U | | 99% | <0.705 | U | | 99% | <0.724 | U | | 99% | <0.704 | U | |
| 2,2',3,4,4',5,6'-Heptachlorobiphenyl | 60145-23-5 | 7.185 | 6.95425 | 99% | <1.52 | U | | 99% | <1.41 | U | | 99% | <1.45 | U | | 99% | <1.41 | U | |
| 2,2',3,4,4',5,6'-Heptachlorobiphenyl | 52663-69-1 | 7.2 | 6.97 | 99% | 1.15 | | 115.0 | 99% | 1.96 | | 196.0 | 99% | 0.933 | | 93.3 | 99% | 1.64 | | 164.0 |
| 2,2',3,4,4',6,6'-Heptachlorobiphenyl | 74472-48-3 | 6.85 | 6.6025 | 83% | <0.760 | U | | 83% | <0.705 | U | | 83% | <0.724 | U | | 83% | <0.704 | U | |
| 2,2',3,4,5,5',6'-Heptachlorobiphenyl | 52712-05-7 | 7.11 | 6.8755 | 99% | <0.760 | U | | 99% | <0.705 | U | | 99% | <0.724 | U | | 99% | <0.704 | U | |
| 2,2',3,4,5,6,6'-Heptachlorobiphenyl | 74472-49-4 | 6.69 | 6.4345 | 73% | <0.760 | U | | 73% | <0.705 | U | | 73% | <0.724 | U | | 73% | <0.704 | U | |
| 2,2',3,4',5,5',6'-Heptachlorobiphenyl | 52663-68-0 | 7.17 | 6.9385 | 99% | 2.56 | | 256.0 | 99% | 3.92 | | 392.0 | 99% | 2.37 | | 237.0 | 99% | 3.97 | | 397.0 |
| 2,2',3,4',5,6,6'-Heptachlorobiphenyl | 74487-85-7 | 6.82 | 6.571 | 81% | <0.760 | U | | 81% | <0.705 | U | | 81% | <0.724 | U | | 81% | <0.704 | U | |
| 2,3,3',4,4',5,5'-Heptachlorobiphenyl | 39635-31-9 | 7.71 | 7.5055 | 99% | <0.760 | U | | 99% | <0.705 | U | | 99% | <0.724 | U | | 99% | <0.704 | U | |
| 2,3,3',4,4',5,6'-Heptachlorobiphenyl | 41411-64-7 | 7.46 | 7.243 | 99% | <0.760 | U | | 99% | 0.43 | J | 43.0 | 99% | <0.724 | U | | 99% | 0.478 | J | 47.8 |
| 2,3,3',4,4',5',6'-Heptachlorobiphenyl | 74472-50-7 | 7.55 | 7.3375 | 99% | <0.760 | U | | 99% | <0.705 | U | | 99% | <0.724 | U | | 99% | <0.704 | U | |
| 2,3,3',4,5,5',6'-Heptachlorobiphenyl | 74472-51-8 | 7.52 | 7.306 | 99% | <0.760 | U | | 99% | <0.705 | U | | 99% | <0.724 | U | | 99% | <0.704 | U | |
| 2,3,3',4',5,5',6'-Heptachlorobiphenyl | 69782-91-8 | 7.52 | 7.306 | 99% | <0.760 | U | | 99% | <0.705 | U | | 99% | <0.724 | U | | 99% | <0.704 | U | |
| 2,2',3,3',4,4',5,5'-Octachlorobiphenyl | 35694-08-7 | 7.8 | 7.6 | 99% | 0.567 | J | 56.7 | 99% | 0.812 | | 81.2 | 99% | <0.724 | U | | 99% | 0.888 | | 88.8 |
| 2,2',3,3',4,4',5,6'-Octachlorobiphenyl | 52663-78-2 | 7.56 | 7.348 | 99% | <0.760 | U | | 99% | <0.705 | U | | 99% | <0.724 | U | | 99% | <0.704 | U | |
| 2,2',3,3',4,4',5,6'-Octachlorobiphenyl | 42740-50-1 | 7.65 | 7.4425 | 99% | <0.760 | U | | 99% | 0.624 | J | 62.4 | 99% | 0.391 | J | 39.1 | 99% | 0.654 | J | 65.4 |
| 2,2',3,3',4,4',6,6'-Octachlorobiphenyl | 33091-17-7 | 7.3 | 7.075 | 99% | <0.760 | U | | 99% | <0.705 | U | | 99% | <0.724 | U | | 99% | <0.704 | U | |
| 2,2',3,3',4,5,5',6'-Octachlorobiphenyl | 68194-17-2 | 7.62 | 7.411 | 99% | <0.760 | U | | 99% | <0.705 | U | | 99% | <0.724 | U | | 99% | <0.704 | U | |
| 2,2',3,3',4,5,5',6'-Octachlorobiphenyl | 52663-75-9 | 7.62 | 7.411 | 99% | <0.760 | U | | 99% | <0.705 | U | | 99% | <0.724 | U | | 99% | <0.704 | U | |
| 2,2',3,3',4,5,6,6'-Octachlorobiphenyl | 40186-71-8 | 7.27 | 7.0435 | 99% | 0.822 | | 82.2 | 99% | 1.09 | | 109.0 | 99% | 0.648 | J | 64.8 | 99% | 0.974 | | 97.4 |
| 2,2',3,3',5,5',6,6'-Octachlorobiphenyl | 2136-99-4 | 7.24 | 7.012 | 99% | <0.760 | U | | 99% | 0.388 | J | 38.8 | 99% | <0.724 | U | | 99% | 0.366 | J | 36.6 |
| 2,2',3,4,4',5,5',6'-Octachlorobiphenyl | 52663-76-0 | 7.65 | 7.4425 | 99% | <0.760 | U | | 99% | <0.705 | U | | 99% | 0.43 | J | 43.0 | 99% | 0.547 | J | 54.7 |
| 2,2',3,4,4',5,6,6'-Octachlorobiphenyl | 74472-52-9 | 7.25 | 7.0225 | 99% | <1.52 | U | | 99% | <1.41 | U | | 99% | <1.45 | U | | 99% | <1.41 | U | |
| 2,3,3',4,4',5,5',6'-Octachlorobiphenyl | 74472-53-0 | 8 | 7.81 | 99% | <0.760 | U | | 99% | <0.705 | U | | 99% | <0.724 | U | | 99% | <0.704 | U | |
| 2,2',3,3',4,4',5,5',6'-Nonachlorobiphenyl | 40186-72-9 | 8.09 | 7.9045 | 99% | <0.760 | U | | 99% | <0.705 | U | | 99% | <0.724 | U | | 99% | <0.704 | U | |
| 2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl | 52663-79-3 | 7.74 | 7.537 | 99% | <0.760 | U | | 99% | <0.705 | U | | 99% | <0.724 | U | | 99% | <0.704 | U | |
| 2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl | 52663-77-1 | 7.71 | 7.5055 | 99% | <0.760 | U | | 99% | <0.705 | U | | 99% | <0.724 | U | | 99% | <0.704 | U | |
| 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl | 2051-24-3 | 8.18 | 7.999 | 99% | <0.760 | U | | 99% | <0.705 | U | | 99% | <0.724 | U | | 99% | <0.704 | U | |

J = estimated result
U = non-detect
K_{ow} = octanol water partition coefficient
KPE-D = polyethylene water partition coefficient
ng/g = nanogram per gram
ng/L = nanogram per liter

Table 3-10
Sediment *In Situ* Porewater and Surface Water PCB Results---Dark Head Cove, 2020

| Congener | CAS | Log Kow | Log KPE-D* | PPW-303-B | | | | PPW-303-C | | | | PPW-304-A | | | | PPW-304-B | | | | |
|---|------------|---------|------------|------------|--------|----------------|-------|------------|--------|----------------|-------|------------|--------|----------------|-------|------------|--------|----------------|-------|---------|
| | | | | % Retained | ng/g | ng/g corrected | ng/L | % Retained | ng/g | ng/g corrected | ng/L | % Retained | ng/g | ng/g corrected | ng/L | % Retained | ng/g | ng/g corrected | ng/L | |
| 2,3,3',4,4',5'-Hexachlorobiphenyl | 68782-90-7 | 7.18 | 6.949 | 99% | <0.742 | U | | 99% | <0.703 | U | | 99% | <0.743 | U | | 99% | <0.688 | U | | |
| 2,3,3',4,5,5'-Hexachlorobiphenyl | 39635-35-3 | 7.24 | 7.012 | 99% | <0.742 | U | | 99% | <0.703 | U | | 99% | <0.743 | U | | 99% | <0.688 | U | | |
| 2,3,3',4,5',6'-Hexachlorobiphenyl | 74472-43-8 | 7.08 | 6.844 | 97% | <0.742 | U | | 97% | <0.703 | U | | 97% | <0.743 | U | | 97% | <0.688 | U | | |
| 2,3,3',4',5,5'-Hexachlorobiphenyl | 39635-34-2 | 7.24 | 7.012 | 99% | <0.742 | U | | 99% | <0.703 | U | | 99% | <0.743 | U | | 99% | <0.688 | U | | |
| 2,3,3',4',5,6'-Hexachlorobiphenyl | 74472-44-9 | 6.96 | 6.718 | 90% | 1.95 | | 19.0 | 90% | 1.2 | J | 11.7 | 90% | 1.46 | J | 14.2 | 90% | 1.54 | | 15.0 | 0.00287 |
| 2,3,3',5,5',6'-Hexachlorobiphenyl | 74472-46-1 | 7.05 | 6.8125 | 95% | <0.742 | U | | 95% | <0.703 | U | | 95% | <0.743 | U | | 95% | <0.688 | U | | |
| 2,3,4,4',5,6'-Hexachlorobiphenyl | 41411-63-6 | 6.93 | 6.6865 | 88% | <0.742 | U | | 88% | <0.703 | U | | 88% | <0.743 | U | | 88% | <0.688 | U | | |
| 2,3',4,4',5,5'-Hexachlorobiphenyl | 52663-72-6 | 7.27 | 7.0435 | 99% | <0.742 | U | | 99% | <0.703 | U | | 99% | <0.743 | U | | 99% | <0.688 | U | | |
| 2,3',4,4',5',6'-Hexachlorobiphenyl | 59291-65-5 | 7.11 | 6.8755 | 99% | <0.742 | U | | 99% | <0.703 | U | | 99% | <0.743 | U | | 99% | <0.688 | U | | |
| 3,3',4,4',5,5'-Hexachlorobiphenyl | 32774-16-6 | 7.42 | 7.201 | 99% | <0.742 | U | | 99% | <0.703 | U | | 99% | <0.743 | U | | 99% | <0.688 | U | | |
| 2,2',3,3',4,4',5'-Heptachlorobiphenyl | 35065-30-6 | 7.27 | 7.0435 | 99% | 1.86 | | 186.0 | 99% | 1.48 | | 148.0 | 99% | 2.05 | | 205.0 | 99% | 1.74 | | 174.0 | 0.01574 |
| 2,2',3,3',4,4',6'-Heptachlorobiphenyl | 52663-71-5 | 7.11 | 6.8755 | 99% | 0.99 | | 104.2 | 99% | 0.788 | | 82.9 | 99% | 0.809 | | 85.1 | 99% | 0.701 | | 73.8 | 0.00982 |
| 2,2',3,3',4,5,5'-Heptachlorobiphenyl | 52663-74-8 | 7.33 | 7.1065 | 99% | 0.611 | J | 61.1 | 99% | <0.703 | U | | 99% | 0.513 | J | 51.3 | 99% | <0.688 | U | | |
| 2,2',3,3',4,5,6'-Heptachlorobiphenyl | 68194-16-1 | 7.02 | 6.781 | 93% | <0.742 | U | | 93% | <0.703 | U | | 93% | <0.743 | U | | 93% | <0.688 | U | | |
| 2,2',3,3',4,5,6'-Heptachlorobiphenyl | 38411-25-5 | 7.11 | 6.8755 | 99% | 2.57 | | 270.4 | 99% | 2.28 | | 239.9 | 99% | 2.51 | | 264.1 | 99% | 2.37 | | 249.4 | 0.03322 |
| 2,2',3,3',4,6,6'-Heptachlorobiphenyl | 52663-65-7 | 6.76 | 6.508 | 77% | 0.711 | J | 3.1 | 77% | 0.671 | J | 3.0 | 77% | 0.727 | J | 3.2 | 77% | 0.507 | J | 2.2 | 0.00069 |
| 2,2',3,3',4,5',6'-Heptachlorobiphenyl | 52663-70-4 | 7.08 | 6.844 | 97% | 1.8 | | 63.9 | 97% | 1.66 | | 58.9 | 97% | 1.92 | | 68.1 | 97% | 1.7 | | 60.3 | 0.00864 |
| 2,2',3,3',5,5',6'-Heptachlorobiphenyl | 52663-67-9 | 7.14 | 6.907 | 99% | 0.878 | | 87.8 | 99% | 0.918 | | 91.8 | 99% | 1.04 | | 104.0 | 99% | 0.745 | | 74.5 | 0.00923 |
| 2,2',3,3',5,6,6'-Heptachlorobiphenyl | 52663-64-6 | 6.73 | 6.4765 | 75% | 1.72 | | 7.0 | 75% | 1.52 | | 6.2 | 75% | 1.93 | | 7.8 | 75% | 1.57 | | 6.4 | 0.00213 |
| 2,2',3,4,4',5,5'-Heptachlorobiphenyl | 35065-29-3 | 7.36 | 7.138 | 99% | 3.86 | | 386.0 | 99% | 3.04 | | 304.0 | 99% | 3.72 | | 372.0 | 99% | 3.66 | | 366.0 | 0.02664 |
| 2,2',3,4,4',5,6'-Heptachlorobiphenyl | 74472-47-2 | 7.11 | 6.8755 | 99% | <0.742 | U | | 99% | <0.703 | U | | 99% | <0.743 | U | | 99% | <0.688 | U | | |
| 2,2',3,4,4',5,6'-Heptachlorobiphenyl | 60145-23-5 | 7.185 | 6.95425 | 99% | <1.48 | U | | 99% | <1.41 | U | | 99% | <1.49 | U | | 99% | <1.38 | U | | |
| 2,2',3,4,4',5',6'-Heptachlorobiphenyl | 52663-69-1 | 7.2 | 6.97 | 99% | 1.92 | | 192.0 | 99% | 1.32 | | 132.0 | 99% | 1.86 | | 186.0 | 99% | 1.56 | | 156.0 | 0.01672 |
| 2,2',3,4,4',6,6'-Heptachlorobiphenyl | 74472-48-3 | 6.85 | 6.6025 | 83% | <0.742 | U | | 83% | <0.703 | U | | 83% | <0.743 | U | | 83% | <0.688 | U | | |
| 2,2',3,4,5,5',6'-Heptachlorobiphenyl | 52712-05-7 | 7.11 | 6.8755 | 99% | <0.742 | U | | 99% | <0.703 | U | | 99% | <0.743 | U | | 99% | <0.688 | U | | |
| 2,2',3,4,5,6,6'-Heptachlorobiphenyl | 74472-49-4 | 6.69 | 6.4345 | 73% | <0.742 | U | | 73% | <0.703 | U | | 73% | <0.743 | U | | 73% | <0.688 | U | | |
| 2,2',3,4',5,5',6'-Heptachlorobiphenyl | 52663-68-0 | 7.17 | 6.9385 | 99% | 4.42 | | 442.0 | 99% | 3.25 | | 325.0 | 99% | 3.77 | | 377.0 | 99% | 3.66 | | 366.0 | 0.04217 |
| 2,2',3,4',5,6,6'-Heptachlorobiphenyl | 74487-85-7 | 6.82 | 6.571 | 81% | <0.742 | U | | 81% | <0.703 | U | | 81% | <0.743 | U | | 81% | <0.688 | U | | |
| 2,3,3',4,4',5,5'-Heptachlorobiphenyl | 39635-31-9 | 7.71 | 7.5055 | 99% | <0.742 | U | | 99% | <0.703 | U | | 99% | <0.743 | U | | 99% | <0.688 | U | | |
| 2,3,3',4,4',5,6'-Heptachlorobiphenyl | 41411-64-7 | 7.46 | 7.243 | 99% | <0.742 | U | | 99% | <0.703 | U | | 99% | <0.743 | U | | 99% | 0.406 | J | 40.6 | 0.00232 |
| 2,3,3',4,4',5',6'-Heptachlorobiphenyl | 74472-50-7 | 7.55 | 7.3375 | 99% | <0.742 | U | | 99% | <0.703 | U | | 99% | <0.743 | U | | 99% | <0.688 | U | | |
| 2,3,3',4,5,5',6'-Heptachlorobiphenyl | 74472-51-8 | 7.52 | 7.306 | 99% | <0.742 | U | | 99% | <0.703 | U | | 99% | <0.743 | U | | 99% | <0.688 | U | | |
| 2,3,3',4',5,5',6'-Heptachlorobiphenyl | 69782-91-8 | 7.52 | 7.306 | 99% | <0.742 | U | | 99% | <0.703 | U | | 99% | <0.743 | U | | 99% | <0.688 | U | | |
| 2,2',3,3',4,4',5'-Octachlorobiphenyl | 35694-08-7 | 7.8 | 7.6 | 99% | 0.981 | | 98.1 | 99% | 0.53 | J | 53.0 | 99% | 0.883 | | 88.3 | 99% | <0.688 | U | | |
| 2,2',3,3',4,4',5,6'-Octachlorobiphenyl | 52663-78-2 | 7.56 | 7.348 | 99% | 0.743 | | 74.3 | 99% | <0.703 | U | | 99% | <0.743 | U | | 99% | <0.688 | U | | |
| 2,2',3,3',4,4',5,6'-Octachlorobiphenyl | 42740-50-1 | 7.65 | 7.4425 | 99% | 0.639 | J | 63.9 | 99% | <0.703 | U | | 99% | 0.522 | J | 52.2 | 99% | 0.471 | J | 47.1 | 0.00170 |
| 2,2',3,3',4,4',6,6'-Octachlorobiphenyl | 33091-17-7 | 7.3 | 7.075 | 99% | <0.742 | U | | 99% | <0.703 | U | | 99% | <0.743 | U | | 99% | <0.688 | U | | |
| 2,2',3,3',4,5,5',6'-Octachlorobiphenyl | 68194-17-2 | 7.62 | 7.411 | 99% | <0.742 | U | | 99% | <0.703 | U | | 99% | <0.743 | U | | 99% | <0.688 | U | | |
| 2,2',3,3',4,5,5',6'-Octachlorobiphenyl | 52663-75-9 | 7.62 | 7.411 | 99% | <0.742 | U | | 99% | <0.703 | U | | 99% | <0.743 | U | | 99% | <0.688 | U | | |
| 2,2',3,3',4,5',6,6'-Octachlorobiphenyl | 40186-71-8 | 7.27 | 7.0435 | 99% | 1.05 | | 105.0 | 99% | 0.851 | | 85.1 | 99% | 1.13 | | 113.0 | 99% | 0.775 | | 77.5 | 0.00701 |
| 2,2',3,3',5,5',6,6'-Octachlorobiphenyl | 2136-99-4 | 7.24 | 7.012 | 99% | <0.742 | U | | 99% | 0.363 | J | 36.3 | 99% | <0.743 | U | | 99% | <0.688 | U | | |
| 2,2',3,4,4',5,5',6'-Octachlorobiphenyl | 52663-76-0 | 7.65 | 7.4425 | 99% | 0.512 | J | 51.2 | 99% | <0.703 | U | | 99% | 0.494 | J | 49.4 | 99% | 0.604 | J | 60.4 | 0.00218 |
| 2,2',3,4,4',5,6,6'-Octachlorobiphenyl | 74472-52-9 | 7.25 | 7.0225 | 99% | <1.48 | U | | 99% | <1.41 | U | | 99% | <1.49 | U | | 99% | <1.38 | U | | |
| 2,3,3',4,4',5,5',6'-Octachlorobiphenyl | 74472-53-0 | 8 | 7.81 | 99% | <0.742 | U | | 99% | <0.703 | U | | 99% | <0.743 | U | | 99% | <0.688 | U | | |
| 2,2',3,3',4,4',5,5',6'-Nonachlorobiphenyl | 40186-72-9 | 8.09 | 7.9045 | 99% | <0.742 | U | | 99% | <0.703 | U | | 99% | <0.743 | U | | 99% | <0.688 | U | | |
| 2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl | 52663-79-3 | 7.74 | 7.537 | 99% | <0.742 | U | | 99% | <0.703 | U | | 99% | <0.743 | U | | 99% | <0.688 | U | | |
| 2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl | 52663-77-1 | 7.71 | 7.5055 | 99% | <0.742 | U | | 99% | <0.703 | U | | 99% | <0.743 | U | | 99% | <0.688 | U | | |
| 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl | 2051-24-3 | 8.18 | 7.999 | 99% | <0.742 | U | | 99% | <0.703 | U | | 99% | <0.743 | U | | 99% | <0.688 | U | | |

J = estimated result

U = non-detect

K_{ow} = octanol water partition coefficient

KPE-D = polyethylene water partition coefficient

ng/g = nanogram per gram

ng/L = nanogram per liter

Table 3-10
Sediment *In Situ* Porewater and Surface Water PCB Results---Dark Head Cove, 2020

| Congener | CAS | Log Kow | Log KPE-D* | PPW-304-C | | | | PPW-305-A | | | | PPW-305-B | | | | PPW-305-C | | | | | | | |
|--------------------------------|------------|---------|------------|------------|--------|----------------|------|------------|--------|----------------|-------|------------|---------|----------------|------|------------|--------|----------------|------|--|-------|-----|---------|
| | | | | % Retained | ng/g | ng/g corrected | ng/L | % Retained | ng/g | ng/g corrected | ng/L | % Retained | ng/g | ng/g corrected | ng/L | % Retained | ng/g | ng/g corrected | ng/L | | | | |
| 2-Chlorobiphenyl | 2051-60-7 | 4.46 | 4.093 | 0% | <0.715 | U | | 0% | <0.736 | U | | 0% | <0.818 | U | | 0% | <0.775 | U | | | | | |
| 3-Chlorobiphenyl | 2051-61-8 | 4.69 | 4.3345 | 0% | <0.715 | U | | 0% | <0.736 | U | | 0% | <0.818 | U | | 0% | <0.775 | U | | | | | |
| 4-Chlorobiphenyl | 2051-62-9 | 4.69 | 4.3345 | 0% | <0.715 | U | | 0% | <0.736 | U | | 0% | <0.818 | U | | 0% | <0.775 | U | | | | | |
| 3,3'-Dichlorobiphenyl | 2050-67-1 | 5.28 | 4.954 | 0% | <0.715 | U | | 0% | <0.736 | U | | 0% | <0.818 | U | | 0% | <0.775 | U | | | | | |
| 3,4'-Dichlorobiphenyl | 2974-92-7 | 5.22 | 4.891 | 0% | <0.715 | U | | 0% | <0.736 | U | | 0% | <0.818 | U | | 0% | <0.775 | U | | | | | |
| 3,4'-Dichlorobiphenyl | 2974-90-5 | 5.29 | 4.9645 | 0% | <0.715 | U | | 0% | <0.736 | U | | 0% | <0.818 | U | | 0% | <0.775 | U | | | | | |
| 3,5'-Dichlorobiphenyl | 34883-41-5 | 5.28 | 4.954 | 0% | <0.715 | U | | 0% | <0.736 | U | | 0% | <0.818 | U | | 0% | <0.775 | U | | | | | |
| 4,4'-Dichlorobiphenyl | 2050-68-2 | 5.3 | 4.975 | 0% | <0.715 | U | | 0% | <0.736 | U | | 0% | <0.818 | U | | 0% | <0.775 | U | | | | | |
| 2,2'-Dichlorobiphenyl | 13029-08-8 | 4.745 | 4.39225 | 0% | <1.43 | U | | 0% | <1.47 | U | | 0% | <1.64 | U | | 0% | <1.55 | U | | | | | |
| 2,3-Dichlorobiphenyl | 16605-91-7 | 4.97 | 4.6285 | 0% | <0.715 | U | | 0% | <0.736 | U | | 0% | <0.818 | U | | 0% | <0.775 | U | | | | | |
| 2,3'-Dichlorobiphenyl | 25569-80-6 | 5.06 | 4.723 | 0% | <0.715 | U | | 0% | <0.736 | U | | 0% | <0.818 | U | | 0% | <0.775 | U | | | | | |
| 2,4-Dichlorobiphenyl | 33284-50-3 | 5.07 | 4.7335 | 0% | <0.715 | U | | 0% | <0.736 | U | | 0% | <0.818 | U | | 0% | <0.775 | U | | | | | |
| 2,4'-Dichlorobiphenyl | 34883-43-7 | 5.07 | 4.7335 | 0% | <0.715 | U | | 0% | <0.736 | U | | 0% | <0.818 | U | | 0% | <0.775 | U | | | | | |
| 2,5-Dichlorobiphenyl | 34883-39-1 | 5.06 | 4.723 | 0% | <0.715 | U | | 0% | <0.736 | U | | 0% | <0.818 | U | | 0% | <0.775 | U | | | | | |
| 2,2',3-Trichlorobiphenyl | 38444-78-9 | 5.16 | 4.828 | 0% | <0.715 | U | | 0% | <0.736 | U | | 0% | <0.818 | U | | 0% | <0.775 | U | | | | | |
| 2,2',4-Trichlorobiphenyl | 37680-66-3 | 5.25 | 4.9225 | 0% | <0.715 | U | | 0% | <0.736 | U | | 0% | <0.818 | U | | 0% | <0.775 | U | | | | | |
| 2,2',5-Trichlorobiphenyl | 37680-65-2 | 5.24 | 4.912 | 0% | <0.715 | U | | 0% | <0.736 | U | | 0% | <0.818 | U | | 0% | <0.775 | U | | | | | |
| 2,2',6-Trichlorobiphenyl | 38444-73-4 | 5.02 | 4.681 | 0% | <0.715 | U | | 0% | <0.736 | U | | 0% | <0.818 | U | | 0% | <0.775 | U | | | | | |
| 2,3,3'-Trichlorobiphenyl | 38444-84-7 | 5.54 | 5.227 | 1% | <1.43 | U | | 1% | <1.47 | U | | 1% | <1.64 | U | | 1% | <1.55 | U | | | | | |
| 2,3,4'-Trichlorobiphenyl | 38444-85-8 | 5.58 | 5.269 | 4% | <0.715 | U | | 4% | <0.736 | U | | 4% | <0.818 | U | | 4% | <0.775 | U | | | | | |
| 2,3,5-Trichlorobiphenyl | 55720-44-0 | 5.57 | 5.2585 | 3% | <0.715 | U | | 3% | <0.736 | U | | 3% | <0.818 | U | | 3% | <0.775 | U | | | | | |
| 2,3,6-Trichlorobiphenyl | 55702-45-9 | 5.35 | 5.0275 | 0% | <0.715 | U | | 0% | <0.736 | U | | 0% | <0.818 | U | | 0% | <0.775 | U | | | | | |
| 2,3',4-Trichlorobiphenyl | 55712-37-3 | 5.67 | 5.3635 | 9% | <0.715 | U | | 9% | <0.736 | U | | 9% | <0.818 | U | | 9% | <0.775 | U | | | | | |
| 2,3',5-Trichlorobiphenyl | 38444-81-4 | 5.66 | 5.353 | 9% | <0.715 | U | | 9% | <0.736 | U | | 9% | <0.818 | U | | 9% | <0.775 | U | | | | | |
| 2,3',6-Trichlorobiphenyl | 38444-76-7 | 5.44 | 5.122 | 0% | <0.715 | U | | 0% | <0.736 | U | | 0% | <0.818 | U | | 0% | <0.775 | U | | | | | |
| 2,4,4'-Trichlorobiphenyl | 7012-37-5 | 5.67 | 5.3635 | 9% | <0.715 | U | | 9% | <0.736 | U | | 9% | <0.818 | U | | 9% | <0.775 | U | | | | | |
| 2,4,5-Trichlorobiphenyl | 15862-07-4 | 5.6 | 5.29 | 5% | <0.715 | U | | 5% | <0.736 | U | | 5% | <0.818 | U | | 5% | <0.775 | U | | | | | |
| 2,4,6-Trichlorobiphenyl | 35693-92-6 | 5.44 | 5.122 | 0% | <0.715 | U | | 0% | <0.736 | U | | 0% | <0.818 | U | | 0% | <0.775 | U | | | | | |
| 2,4',5-Trichlorobiphenyl | 16606-02-3 | 5.67 | 5.3635 | 9% | <0.715 | U | | 9% | <0.736 | U | | 9% | <0.818 | U | | 9% | <0.775 | U | | | | | |
| 2,4',6-Trichlorobiphenyl | 38444-77-8 | 5.44 | 5.122 | 0% | <0.715 | U | | 0% | <0.736 | U | | 0% | <0.818 | U | | 0% | <0.775 | U | | | | | |
| 2,3',4'-Trichlorobiphenyl | 38444-86-9 | 5.6 | 5.29 | 5% | <0.715 | U | | 5% | <0.736 | U | | 5% | <0.818 | U | | 5% | <0.775 | U | | | | | |
| 2,3',5'-Trichlorobiphenyl | 37680-68-5 | 5.66 | 5.353 | 9% | <0.715 | U | | 9% | <0.736 | U | | 9% | <0.818 | U | | 9% | <0.775 | U | | | | | |
| 3,3',4-Trichlorobiphenyl | 37680-69-6 | 5.82 | 5.521 | 19% | <0.715 | U | | 19% | <0.736 | U | | 19% | <0.818 | U | | 19% | <0.775 | U | | | | | |
| 3,3',5-Trichlorobiphenyl | 38444-87-0 | 5.88 | 5.584 | 22% | <0.715 | U | | 22% | <0.736 | U | | 22% | <0.818 | U | | 22% | <0.775 | U | | | | | |
| 3,4,4'-Trichlorobiphenyl | 38444-90-5 | 5.83 | 5.5315 | 19% | <0.715 | U | | 19% | <0.736 | U | | 19% | <0.818 | U | | 19% | <0.775 | U | | | | | |
| 3,4,5-Trichlorobiphenyl | 53555-66-1 | 5.76 | 5.458 | 15% | <0.715 | U | | 15% | <0.736 | U | | 15% | <0.818 | U | | 15% | <0.775 | U | | | | | |
| 3,4',5-Trichlorobiphenyl | 38444-88-1 | 5.89 | 5.5945 | 23% | <0.715 | U | | 23% | <0.736 | U | | 23% | <0.818 | U | | 23% | <0.775 | U | | | | | |
| 2,2',3,3'-Tetrachlorobiphenyl | 38444-93-8 | 5.66 | 5.353 | 9% | <0.715 | U | | 9% | <0.736 | U | | 9% | <0.818 | U | | 9% | <0.775 | U | | | | | |
| 2,2',3,4-Tetrachlorobiphenyl | 52663-59-9 | 5.69 | 5.3845 | 11% | <0.715 | U | | 11% | <0.736 | U | | 11% | <0.818 | U | | 11% | <0.775 | U | | | | | |
| 2,2',3,4'-Tetrachlorobiphenyl | 36559-22-5 | 5.76 | 5.458 | 15% | <0.715 | U | | 15% | <0.736 | U | | 15% | <0.818 | U | | 15% | <0.775 | U | | | | | |
| 2,2',3,5-Tetrachlorobiphenyl | 70362-46-8 | 5.75 | 5.4475 | 14% | <0.715 | U | | 14% | <0.736 | U | | 14% | <0.818 | U | | 14% | <0.775 | U | | | | | |
| 2,2',3,5'-Tetrachlorobiphenyl | 41464-39-5 | 5.75 | 5.4475 | 14% | <0.715 | U | | 14% | <0.736 | U | | 14% | <0.818 | U | | 14% | <0.775 | U | | | | | |
| 2,2',3,6-Tetrachlorobiphenyl | 70362-45-7 | 5.53 | 5.2165 | 1% | <0.715 | U | | 1% | <0.736 | U | | 1% | <0.818 | U | | 1% | <0.775 | U | | | | | |
| 2,2',4,4'-Tetrachlorobiphenyl | 2437-79-8 | 5.85 | 5.5525 | 21% | | 5.3 | 6.7 | 0.01871 | 21% | | 4.88 | 6.1 | 0.01723 | 21% | | 4.9 | 6.2 | 0.01730 | 21% | | 5.03 | 6.3 | 0.01776 |
| 2,2',4,5-Tetrachlorobiphenyl | 70362-47-9 | 5.78 | 5.479 | 16% | <0.715 | U | | 16% | <0.736 | U | | 16% | <0.818 | U | | 16% | <0.775 | U | | | | | |
| 2,2',4,5'-Tetrachlorobiphenyl | 41464-40-8 | 5.85 | 5.5525 | 21% | | 3.7 | 4.7 | 0.01306 | 21% | | 3.6 | 4.5 | 0.01271 | 21% | | 3.52 | 4.4 | 0.01243 | 21% | | 3.52 | 4.4 | 0.01243 |
| 2,2',4,6-Tetrachlorobiphenyl | 62796-65-0 | 5.63 | 5.3215 | 7% | <0.715 | U | | 7% | <0.736 | U | | 7% | <0.818 | U | | 7% | <0.775 | U | | | | | |
| 2,2',4,6'-Tetrachlorobiphenyl | 68194-04-7 | 5.63 | 5.3215 | 7% | | 4.2 | 4.5 | 0.02152 | 7% | | 3.93 | 4.2 | 0.02014 | 7% | | 4.19 | 4.5 | 0.02147 | 7% | | 3.84 | 4.1 | 0.01968 |
| 2,2',5,5'-Tetrachlorobiphenyl | 35693-99-3 | 5.84 | 5.542 | 20% | | 2.07 | 2.6 | 0.00743 | 20% | | 1.93 | 2.4 | 0.00693 | 20% | | 1.89 | 2.4 | 0.00678 | 20% | | 1.94 | 2.4 | 0.00696 |
| 2,2',5,6-Tetrachlorobiphenyl | 41464-41-9 | 5.62 | 5.311 | 6% | | 3.41 | 3.6 | 0.01778 | 6% | | 3.47 | 3.7 | 0.01810 | 6% | | 3.01 | 3.2 | 0.01570 | 6% | | 3.13 | 3.3 | 0.01632 |
| 2,2',6,6'-Tetrachlorobiphenyl | 15968-05-5 | 5.21 | 4.8805 | 0% | | 0.992 | 1.0 | 0.01306 | 0% | | 0.894 | 0.9 | 0.01177 | 0% | | 0.908 | 0.9 | 0.01196 | 0% | | 0.97 | 1.0 | 0.01277 |
| 2,3,3',4-Tetrachlorobiphenyl | 74338-24-2 | 6.11 | 5.8255 | 37% | <0.715 | U | | 37% | <0.736 | U | | 37% | <0.818 | U | | 37% | <0.775 | U | | | | | |
| 2,3,3',4'-Tetrachlorobiphenyl | 41464-43-1 | 6.11 | 5.8255 | 37% | <0.715 | U | | 37% | <0.736 | U | | 37% | <0.818 | U | | 37% | <0.775 | U | | | | | |
| 2,3,3',5-Tetrachlorobiphenyl | 70424-67-8 | 6.17 | 5.8885 | 41% | <0.715 | U | | 41% | <0.736 | U | | 41% | <0.818 | U | | 41% | <0.775 | U | | | | | |
| 2,3,3',6-Tetrachlorobiphenyl | 74472-33-6 | 5.95 | 5.6575 | 27% | <0.715 | U | | 27% | <0.736 | U | | 27% | <0.818 | U | | 27% | <0.775 | U | | | | | |
| 2,3,4,4'-Tetrachlorobiphenyl | 33025-41-1 | 6.11 | 5.8255 | 37% | <0.715 | U | | 37% | <0.736 | U | | 37% | <0.818 | U | | 37% | <0.775 | U | | | | | |
| 2,3,4,5-Tetrachlorobiphenyl | 33284-53-6 | 6.04 | 5.752 | 32% | <0.715 | U | | 32% | <0.736 | U | | 32% | <0.818 | U | | 32% | <0.775 | U | | | | | |
| 2,3,4',5-Tetrachlorobiphenyl | 74472-34-7 | 6.17 | 5.8885 | 41% | <0.715 | U | | 41% | <0.736 | U | | 41% | <0.818 | U | | 41% | <0.775 | U | | | | | |
| 2,3,5,6-Tetrachlorobiphenyl | 33284-54-7 | 5.933 | 5.64 | 26% | <2.14 | U | | 26% | <2.21 | U | | 26% | <2.45 | U | | 26% | <2.32 | U | | | | | |
| 2,3',4,4'-Tetrachlorobiphenyl | 32598-10-0 | 6.2 | 5.92 | 42% | <0.715 | U | | 42% | <0.736 | U | | 42% | <0.818 | U | | 42% | <0.775 | U | | | | | |
| 2,3',4,5-Tetrachlorobiphenyl | 73575-53-8 | 6.185 | 5.90425 | 41% | <1.43 | U | | 41% | <1.47 | U | | 41% | <1.64 | U | | 41% | <1.55 | U | | | | | |
| 2,3',4,5'-Tetrachlorobiphenyl | 73575-52-7 | 6.105 | 5.82025 | 36% | <1.43 | U | | 36% | <1.47 | U | | 36% | <1.64 | U | | 36% | <1.55 | U | | | | | |
| 2,3',4,6-Tetrachlorobiphenyl | 60233-24-1 | 6.04 | 5.752 | 32% | <0.715 | U | | 32% | <0.736 | U | | 32% | <0.818 | U | | 32% | <0.775 | U | | | | | |
| 2,3',4',5-Tetrachlorobiphenyl | 32598-11-1 | 6.2 | 5.92 | 42% | <0.715 | U | | 42% | <0.736 | U | | 42% | <0.818 | U | | 42% | <0.775 | U | | | | | |
| 2,3',4',6-Tetrachlorobiphenyl | 41464-46-4 | 5.98 | 5.689 | 29% | | 0.54 | 0.8 | 0.00155 | 29% | | 0.604 | 0.8 | 0.00173 | 29% | | 0.609 | 0.9 | 0.00175 | 29% | | 0.558 | 0.8 | 0.00160 |
| 2,3',5,5'-Tetrachlorobiphenyl | 41464-42-0 | 6.26 | 5.983 | 46% | <0.715 | U | | 46% | <0.736 | U | | 46% | <0.818 | U | | 46% | <0.775 | U | | | | | |
| 2,3',5',6-Tetrachlorobiphenyl | 74338-23-1 | 5.785 | 5.48425 | 17% | <1.43 | U | | 17% | <1.47 | U | | 17% | <1.64 | U | | 17% | <1.55 | U | | | | | |
| 2,4,4',5-Tetrachlorobiphenyl | 32690-93-0 | 6.2 | 5.92 | 42% | <0.715 | U | | 42% | <0.736 | U | | 42% | <0.818 | U | | 42% | <0.775 | U | | | | | |
| 2,3',4',5'-Tetrachlorobiphenyl | 70362-48-0 | 6.13 | 5.8465 | 38% | <0.715 | | | | | | | | | | | | | | | | | | |

Table 3-10
Sediment *In Situ* Porewater and Surface Water PCB Results---Dark Head Cove, 2020

| Congener | CAS | Log Kow | Log KPE-D* | PPW-304-C | | | | PPW-305-A | | | | PPW-305-B | | | | PPW-305-C | | | |
|---|------------|---------|------------|------------|--------|----------------|-------|------------|--------|----------------|-------|------------|--------|----------------|-------|------------|--------|----------------|-------|
| | | | | % Retained | ng/g | ng/g corrected | ng/L | % Retained | ng/g | ng/g corrected | ng/L | % Retained | ng/g | ng/g corrected | ng/L | % Retained | ng/g | ng/g corrected | ng/L |
| 2,3,3',4,4',5'-Hexachlorobiphenyl | 68782-90-7 | 7.18 | 6.949 | 99% | <0.715 | U | | 99% | <0.736 | U | | 99% | <0.818 | U | | 99% | <0.775 | U | |
| 2,3,3',4,5,5'-Hexachlorobiphenyl | 39635-35-3 | 7.24 | 7.012 | 99% | <0.715 | U | | 99% | <0.736 | U | | 99% | <0.818 | U | | 99% | <0.775 | U | |
| 2,3,3',4,5',6'-Hexachlorobiphenyl | 74472-43-8 | 7.08 | 6.844 | 97% | <0.715 | U | | 97% | <0.736 | U | | 97% | <0.818 | U | | 97% | <0.775 | U | |
| 2,3,3',4',5,5'-Hexachlorobiphenyl | 39635-34-2 | 7.24 | 7.012 | 99% | <0.715 | U | | 99% | <0.736 | U | | 99% | <0.818 | U | | 99% | <0.775 | U | |
| 2,3,3',4',5,6'-Hexachlorobiphenyl | 74472-44-9 | 6.96 | 6.718 | 90% | 1.69 | | 16.4 | 90% | 1.61 | | 15.7 | 90% | 2.01 | | 19.5 | 90% | 1.94 | | 18.9 |
| 2,3,3',5,5',6'-Hexachlorobiphenyl | 74472-46-1 | 7.05 | 6.8125 | 95% | <0.715 | U | | 95% | <0.736 | U | | 95% | <0.818 | U | | 95% | <0.775 | U | |
| 2,3,4,4',5,6'-Hexachlorobiphenyl | 41411-63-6 | 6.93 | 6.6865 | 88% | <0.715 | U | | 88% | <0.736 | U | | 88% | <0.818 | U | | 88% | <0.775 | U | |
| 2,3',4,4',5,5'-Hexachlorobiphenyl | 52663-72-6 | 7.27 | 7.0435 | 99% | <0.715 | U | | 99% | <0.736 | U | | 99% | <0.818 | U | | 99% | <0.775 | U | |
| 2,3',4,4',5',6'-Hexachlorobiphenyl | 59291-65-5 | 7.11 | 6.8755 | 99% | <0.715 | U | | 99% | <0.736 | U | | 99% | <0.818 | U | | 99% | <0.775 | U | |
| 3,3',4,4',5,5'-Hexachlorobiphenyl | 32774-16-6 | 7.42 | 7.201 | 99% | <0.715 | U | | 99% | <0.736 | U | | 99% | <0.818 | U | | 99% | <0.775 | U | |
| 2,2',3,3',4,4',5'-Heptachlorobiphenyl | 35065-30-6 | 7.27 | 7.0435 | 99% | 2.21 | | 221.0 | 99% | 2.16 | | 216.0 | 99% | 2.06 | | 206.0 | 99% | 2.48 | | 248.0 |
| 2,2',3,3',4,4',6'-Heptachlorobiphenyl | 52663-71-5 | 7.11 | 6.8755 | 99% | 0.982 | | 103.3 | 99% | 1.16 | | 122.1 | 99% | 1.11 | | 116.8 | 99% | 1.03 | | 108.4 |
| 2,2',3,3',4,5,5'-Heptachlorobiphenyl | 52663-74-8 | 7.33 | 7.1065 | 99% | <0.715 | U | | 99% | 0.477 | J | 47.7 | 99% | <0.818 | U | | 99% | <0.775 | U | |
| 2,2',3,3',4,5,6'-Heptachlorobiphenyl | 68194-16-1 | 7.02 | 6.781 | 93% | <0.715 | U | | 93% | <0.736 | U | | 93% | <0.818 | U | | 93% | <0.775 | U | |
| 2,2',3,3',4,5,6'-Heptachlorobiphenyl | 38411-25-5 | 7.11 | 6.8755 | 99% | 3.17 | | 333.6 | 99% | 3.5 | | 368.3 | 99% | 3.29 | | 346.2 | 99% | 3.72 | | 391.4 |
| 2,2',3,3',4,6,6'-Heptachlorobiphenyl | 52663-65-7 | 6.76 | 6.508 | 77% | 0.603 | J | 2.7 | 77% | 0.95 | | 4.2 | 77% | 1.12 | | 4.9 | 77% | 0.848 | | 3.7 |
| 2,2',3,3',4,5,6'-Heptachlorobiphenyl | 52663-70-4 | 7.08 | 6.844 | 97% | 2.41 | | 85.5 | 97% | 2.23 | | 79.1 | 97% | 2.54 | | 90.1 | 97% | 2.55 | | 90.5 |
| 2,2',3,3',5,5',6'-Heptachlorobiphenyl | 52663-67-9 | 7.14 | 6.907 | 99% | 1.37 | | 137.0 | 99% | 1.36 | | 136.0 | 99% | 1.02 | | 102.0 | 99% | 0.913 | | 91.3 |
| 2,2',3,3',5,6,6'-Heptachlorobiphenyl | 52663-64-6 | 6.73 | 6.4765 | 75% | 2.2 | | 8.9 | 75% | 2.17 | | 8.8 | 75% | 2.48 | | 10.1 | 75% | 2.34 | | 9.5 |
| 2,2',3,4,4',5,5'-Heptachlorobiphenyl | 35065-29-3 | 7.36 | 7.138 | 99% | 4.15 | | 415.0 | 99% | 4.32 | | 432.0 | 99% | 4.4 | | 440.0 | 99% | 4.87 | | 487.0 |
| 2,2',3,4,4',5,6'-Heptachlorobiphenyl | 74472-47-2 | 7.11 | 6.8755 | 99% | <0.715 | U | | 99% | <0.736 | U | | 99% | <0.818 | U | | 99% | <0.775 | U | |
| 2,2',3,4,4',5,6'-Heptachlorobiphenyl | 60145-23-5 | 7.185 | 6.95425 | 99% | <1.43 | U | | 99% | <1.47 | U | | 99% | <1.64 | U | | 99% | <1.55 | U | |
| 2,2',3,4,4',5,6'-Heptachlorobiphenyl | 52663-69-1 | 7.2 | 6.997 | 99% | 2.26 | | 226.0 | 99% | 2.32 | | 232.0 | 99% | 2.26 | | 226.0 | 99% | 1.86 | | 186.0 |
| 2,2',3,4,4',6,6'-Heptachlorobiphenyl | 74472-48-3 | 6.85 | 6.6025 | 83% | <0.715 | U | | 83% | <0.736 | U | | 83% | <0.818 | U | | 83% | <0.775 | U | |
| 2,2',3,4,5,5',6'-Heptachlorobiphenyl | 52712-05-7 | 7.11 | 6.8755 | 99% | 0.586 | J | 61.7 | 99% | <0.736 | U | | 99% | 0.453 | J | 47.7 | 99% | 0.432 | J | 45.5 |
| 2,2',3,4,5,6,6'-Heptachlorobiphenyl | 74472-49-4 | 6.69 | 6.4345 | 73% | <0.715 | U | | 73% | <0.736 | U | | 73% | <0.818 | U | | 73% | <0.775 | U | |
| 2,2',3,4',5,5',6'-Heptachlorobiphenyl | 52663-68-0 | 7.17 | 6.9385 | 99% | 4.63 | | 463.0 | 99% | 4.99 | | 499.0 | 99% | 4.66 | | 466.0 | 99% | 4.93 | | 493.0 |
| 2,2',3,4',5,6,6'-Heptachlorobiphenyl | 74487-85-7 | 6.82 | 6.571 | 81% | <0.715 | U | | 81% | <0.736 | U | | 81% | <0.818 | U | | 81% | <0.775 | U | |
| 2,3,3',4,4',5,5'-Heptachlorobiphenyl | 39635-31-9 | 7.71 | 7.5055 | 99% | <0.715 | U | | 99% | <0.736 | U | | 99% | <0.818 | U | | 99% | <0.775 | U | |
| 2,3,3',4,4',5,6'-Heptachlorobiphenyl | 41411-64-7 | 7.46 | 7.243 | 99% | 0.489 | J | 48.9 | 99% | 0.415 | J | 41.5 | 99% | 0.483 | J | 48.3 | 99% | 0.604 | J | 60.4 |
| 2,3,3',4,4',5',6'-Heptachlorobiphenyl | 74472-50-7 | 7.55 | 7.3375 | 99% | <0.715 | U | | 99% | <0.736 | U | | 99% | <0.818 | U | | 99% | <0.775 | U | |
| 2,3,3',4,5,5',6'-Heptachlorobiphenyl | 74472-51-8 | 7.52 | 7.306 | 99% | <0.715 | U | | 99% | <0.736 | U | | 99% | <0.818 | U | | 99% | <0.775 | U | |
| 2,3,3',4',5,5',6'-Heptachlorobiphenyl | 69782-91-8 | 7.52 | 7.306 | 99% | <0.715 | U | | 99% | <0.736 | U | | 99% | <0.818 | U | | 99% | <0.775 | U | |
| 2,2',3,3',4,4',5,5'-Octachlorobiphenyl | 35694-08-7 | 7.8 | 7.6 | 99% | 1.02 | | 102.0 | 99% | 1.1 | | 110.0 | 99% | 0.972 | | 97.2 | 99% | 1.11 | | 111.0 |
| 2,2',3,3',4,4',5,6'-Octachlorobiphenyl | 52663-78-2 | 7.56 | 7.348 | 99% | 0.455 | J | 45.5 | 99% | 0.555 | J | 55.5 | 99% | <0.818 | U | | 99% | 0.459 | J | 45.9 |
| 2,2',3,3',4,4',5,6'-Octachlorobiphenyl | 42740-50-1 | 7.65 | 7.4425 | 99% | 0.502 | J | 50.2 | 99% | 0.54 | J | 54.0 | 99% | 0.609 | J | 60.9 | 99% | 0.542 | J | 54.2 |
| 2,2',3,3',4,4',6,6'-Octachlorobiphenyl | 33091-17-7 | 7.3 | 7.075 | 99% | <0.715 | U | | 99% | <0.736 | U | | 99% | <0.818 | U | | 99% | <0.775 | U | |
| 2,2',3,3',4,5,5',6'-Octachlorobiphenyl | 68194-17-2 | 7.62 | 7.411 | 99% | <0.715 | U | | 99% | <0.736 | U | | 99% | <0.818 | U | | 99% | <0.775 | U | |
| 2,2',3,3',4,5,5',6'-Octachlorobiphenyl | 52663-75-9 | 7.62 | 7.411 | 99% | <0.715 | U | | 99% | <0.736 | U | | 99% | <0.818 | U | | 99% | <0.775 | U | |
| 2,2',3,3',4,5,6,6'-Octachlorobiphenyl | 40186-71-8 | 7.27 | 7.0435 | 99% | 0.789 | | 78.9 | 99% | 1.38 | | 138.0 | 99% | 1.05 | | 105.0 | 99% | 1.3 | | 130.0 |
| 2,2',3,3',5,5',6,6'-Octachlorobiphenyl | 2136-99-4 | 7.24 | 7.012 | 99% | 0.512 | J | 51.2 | 99% | 0.381 | J | 38.1 | 99% | <0.818 | U | | 99% | <0.775 | U | |
| 2,2',3,4,4',5,5',6'-Octachlorobiphenyl | 52663-76-0 | 7.65 | 7.4425 | 99% | 0.601 | J | 60.1 | 99% | 0.965 | J | 96.5 | 99% | 0.604 | J | 60.4 | 99% | 0.728 | J | 72.8 |
| 2,2',3,4,4',5,6,6'-Octachlorobiphenyl | 74472-52-9 | 7.25 | 7.0225 | 99% | <1.43 | U | | 99% | <1.47 | U | | 99% | <1.64 | U | | 99% | <1.55 | U | |
| 2,3,3',4,4',5,5',6'-Octachlorobiphenyl | 74472-53-0 | 8 | 7.81 | 99% | <0.715 | U | | 99% | <0.736 | U | | 99% | <0.818 | U | | 99% | <0.775 | U | |
| 2,2',3,3',4,4',5,5',6'-Nonachlorobiphenyl | 40186-72-9 | 8.09 | 7.9045 | 99% | <0.715 | U | | 99% | <0.736 | U | | 99% | <0.818 | U | | 99% | <0.775 | U | |
| 2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl | 52663-79-3 | 7.74 | 7.537 | 99% | <0.715 | U | | 99% | <0.736 | U | | 99% | <0.818 | U | | 99% | <0.775 | U | |
| 2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl | 52663-77-1 | 7.71 | 7.5055 | 99% | <0.715 | U | | 99% | <0.736 | U | | 99% | <0.818 | U | | 99% | <0.775 | U | |
| 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl | 2051-24-3 | 8.18 | 7.999 | 99% | <0.715 | U | | 99% | <0.736 | U | | 99% | <0.818 | U | | 99% | <0.775 | U | |

J = estimated result

U = non-detect

K_{ow} = octanol water partition coefficient

KPE-D = polyethylene water partition coefficient

ng/g = nanogram per gram

ng/L = nanogram per liter

Table 3-10
Sediment *In Situ* Porewater and Surface Water PCB Results---Dark Head Cove, 2020

| Congener | CAS | Log Kow | Log KPE-D* | SW-302 | | | | SW-303 | | | | SW-304 | | | | SW-305 | | | | |
|---|------------|---------|------------|------------|--------|----------------|-------|------------|--------|----------------|-------|------------|--------|----------------|-------|------------|--------|----------------|-------|---------|
| | | | | % Retained | ng/g | ng/g corrected | ng/L | % Retained | ng/g | ng/g corrected | ng/L | % Retained | ng/g | ng/g corrected | ng/L | % Retained | ng/g | ng/g corrected | ng/L | |
| 2,3,3',4,4',5'-Hexachlorobiphenyl | 68782-90-7 | 7.18 | 6.949 | 99% | <0.652 | U | | 99% | <0.806 | U | | 99% | <0.705 | U | | 99% | <0.725 | U | | |
| 2,3,3',4,5,5'-Hexachlorobiphenyl | 39635-35-3 | 7.24 | 7.012 | 99% | <0.652 | U | | 99% | <0.806 | U | | 99% | <0.705 | U | | 99% | <0.725 | U | | |
| 2,3,3',4,5',6'-Hexachlorobiphenyl | 74472-43-8 | 7.08 | 6.844 | 97% | <0.652 | U | | 97% | <0.806 | U | | 97% | <0.705 | U | | 97% | <0.725 | U | | |
| 2,3,3',4',5,5'-Hexachlorobiphenyl | 39635-34-2 | 7.24 | 7.012 | 99% | <0.652 | U | | 99% | <0.806 | U | | 99% | <0.705 | U | | 99% | <0.725 | U | | |
| 2,3,3',4',5,6'-Hexachlorobiphenyl | 74472-44-9 | 6.96 | 6.718 | 90% | 1.21 | J | 11.8 | 90% | 1.57 | J | 15.3 | 90% | 1.33 | J | 12.9 | 90% | 1.49 | | 14.5 | 0.00277 |
| 2,3,3',5,5',6'-Hexachlorobiphenyl | 74472-46-1 | 7.05 | 6.8125 | 95% | <0.652 | U | | 95% | <0.806 | U | | 95% | <0.705 | U | | 95% | <0.725 | U | | |
| 2,3,4,4',5,6'-Hexachlorobiphenyl | 41411-63-6 | 6.93 | 6.6865 | 88% | <0.652 | U | | 88% | <0.806 | U | | 88% | <0.705 | U | | 88% | <0.725 | U | | |
| 2,3',4,4',5,5'-Hexachlorobiphenyl | 52663-72-6 | 7.27 | 7.0435 | 99% | <0.652 | U | | 99% | <0.806 | U | | 99% | <0.705 | U | | 99% | <0.725 | U | | |
| 2,3',4,4',5',6'-Hexachlorobiphenyl | 59291-65-5 | 7.11 | 6.8755 | 99% | <0.652 | U | | 99% | <0.806 | U | | 99% | <0.705 | U | | 99% | <0.725 | U | | |
| 3,3',4,4',5,5'-Hexachlorobiphenyl | 32774-16-6 | 7.42 | 7.201 | 99% | <0.652 | U | | 99% | <0.806 | U | | 99% | <0.705 | U | | 99% | <0.725 | U | | |
| 2,2',3,3',4,4',5'-Heptachlorobiphenyl | 35065-30-6 | 7.27 | 7.0435 | 99% | 1.21 | | 121.0 | 99% | 1.73 | | 173.0 | 99% | 1.52 | | 152.0 | 99% | 1.82 | | 182.0 | 0.01647 |
| 2,2',3,3',4,4',6'-Heptachlorobiphenyl | 52663-71-5 | 7.11 | 6.8755 | 99% | <0.652 | U | | 99% | 0.654 | J | 68.8 | 99% | <0.705 | U | | 99% | 0.708 | J | 74.5 | 0.00992 |
| 2,2',3,3',4,5,5'-Heptachlorobiphenyl | 52663-74-8 | 7.33 | 7.1065 | 99% | <0.652 | U | | 99% | <0.806 | U | | 99% | <0.705 | U | | 99% | 0.547 | J | 54.7 | 0.00428 |
| 2,2',3,3',4,5,6'-Heptachlorobiphenyl | 68194-16-1 | 7.02 | 6.781 | 93% | <0.652 | U | | 93% | <0.806 | U | | 93% | <0.705 | U | | 93% | <0.725 | U | | |
| 2,2',3,3',4,5,6'-Heptachlorobiphenyl | 38411-25-5 | 7.11 | 6.8755 | 99% | 1.61 | | 169.4 | 99% | 2.17 | | 228.3 | 99% | 1.78 | | 187.3 | 99% | 1.95 | | 205.2 | 0.02733 |
| 2,2',3,3',4,6,6'-Heptachlorobiphenyl | 52663-65-7 | 6.76 | 6.508 | 77% | 0.499 | J | 2.2 | 77% | 0.72 | J | 3.2 | 77% | 0.451 | J | 2.0 | 77% | 0.62 | J | 2.7 | 0.00085 |
| 2,2',3,3',4,5,6'-Heptachlorobiphenyl | 52663-70-4 | 7.08 | 6.844 | 97% | 1.32 | | 46.8 | 97% | 1.59 | | 56.4 | 97% | 1.42 | | 50.4 | 97% | 1.93 | | 68.5 | 0.00981 |
| 2,2',3,3',5,5',6'-Heptachlorobiphenyl | 52663-67-9 | 7.14 | 6.907 | 99% | 0.485 | J | 48.5 | 99% | <0.806 | U | | 99% | 0.831 | | 83.1 | 99% | 0.842 | | 84.2 | 0.01043 |
| 2,2',3,3',5,6,6'-Heptachlorobiphenyl | 52663-64-6 | 6.73 | 6.4765 | 75% | 1.24 | | 5.0 | 75% | 1.48 | | 6.0 | 75% | 1.29 | | 5.2 | 75% | 1.76 | | 7.2 | 0.00239 |
| 2,2',3,4,4',5,5'-Heptachlorobiphenyl | 35065-29-3 | 7.36 | 7.138 | 99% | 2.5 | | 250.0 | 99% | 3.07 | | 307.0 | 99% | 2.83 | | 283.0 | 99% | 3.06 | | 306.0 | 0.02227 |
| 2,2',3,4,4',5,6'-Heptachlorobiphenyl | 74472-47-2 | 7.11 | 6.8755 | 99% | <0.652 | U | | 99% | <0.806 | U | | 99% | <0.705 | U | | 99% | <0.725 | U | | |
| 2,2',3,4,4',5,6'-Heptachlorobiphenyl | 60145-23-5 | 7.185 | 6.95425 | 99% | <1.30 | U | | 99% | <1.61 | U | | 99% | <1.41 | U | | 99% | <1.45 | U | | |
| 2,2',3,4,4',5,6'-Heptachlorobiphenyl | 52663-69-1 | 7.2 | 6.97 | 99% | 1.15 | | 115.0 | 99% | 1.87 | | 187.0 | 99% | 1.37 | | 137.0 | 99% | 1.46 | | 146.0 | 0.01564 |
| 2,2',3,4,4',6,6'-Heptachlorobiphenyl | 74472-48-3 | 6.85 | 6.6025 | 83% | <0.652 | U | | 83% | <0.806 | U | | 83% | <0.705 | U | | 83% | <0.725 | U | | |
| 2,2',3,4,5,5',6'-Heptachlorobiphenyl | 52712-05-7 | 7.11 | 6.8755 | 99% | <0.652 | U | | 99% | <0.806 | U | | 99% | <0.705 | U | | 99% | <0.725 | U | | |
| 2,2',3,4,5,6,6'-Heptachlorobiphenyl | 74472-49-4 | 6.69 | 6.4345 | 73% | <0.652 | U | | 73% | <0.806 | U | | 73% | <0.705 | U | | 73% | <0.725 | U | | |
| 2,2',3,4',5,5',6'-Heptachlorobiphenyl | 52663-68-0 | 7.17 | 6.9385 | 99% | 2.62 | | 262.0 | 99% | 3.49 | | 349.0 | 99% | 3.1 | | 310.0 | 99% | 3.38 | | 338.0 | 0.03894 |
| 2,2',3,4',5,6,6'-Heptachlorobiphenyl | 74487-85-7 | 6.82 | 6.571 | 81% | <0.652 | U | | 81% | <0.806 | U | | 81% | <0.705 | U | | 81% | <0.725 | U | | |
| 2,3,3',4,4',5,5'-Heptachlorobiphenyl | 39635-31-9 | 7.71 | 7.5055 | 99% | <0.652 | U | | 99% | <0.806 | U | | 99% | <0.705 | U | | 99% | <0.725 | U | | |
| 2,3,3',4,4',5,6'-Heptachlorobiphenyl | 41411-64-7 | 7.46 | 7.243 | 99% | <0.652 | U | | 99% | <0.806 | U | | 99% | <0.705 | U | | 99% | <0.725 | U | | |
| 2,3,3',4,4',5',6'-Heptachlorobiphenyl | 74472-50-7 | 7.55 | 7.3375 | 99% | <0.652 | U | | 99% | <0.806 | U | | 99% | <0.705 | U | | 99% | <0.725 | U | | |
| 2,3,3',4,5,5',6'-Heptachlorobiphenyl | 74472-51-8 | 7.52 | 7.306 | 99% | <0.652 | U | | 99% | <0.806 | U | | 99% | <0.705 | U | | 99% | <0.725 | U | | |
| 2,3,3',4,5,5',6'-Heptachlorobiphenyl | 69782-91-8 | 7.52 | 7.306 | 99% | <0.652 | U | | 99% | <0.806 | U | | 99% | <0.705 | U | | 99% | <0.725 | U | | |
| 2,2',3,3',4,4',5,5'-Octachlorobiphenyl | 35694-08-7 | 7.8 | 7.6 | 99% | <0.652 | U | | 99% | <0.806 | U | | 99% | <0.705 | U | | 99% | <0.725 | U | | |
| 2,2',3,3',4,4',5,6'-Octachlorobiphenyl | 52663-78-2 | 7.56 | 7.348 | 99% | <0.652 | U | | 99% | <0.806 | U | | 99% | <0.705 | U | | 99% | <0.725 | U | | |
| 2,2',3,3',4,4',5,6'-Octachlorobiphenyl | 42740-50-1 | 7.65 | 7.4425 | 99% | <0.652 | U | | 99% | 0.799 | J | 79.9 | 99% | <0.705 | U | | 99% | 0.502 | J | 50.2 | 0.00181 |
| 2,2',3,3',4,4',6,6'-Octachlorobiphenyl | 33091-17-7 | 7.3 | 7.075 | 99% | <0.652 | U | | 99% | <0.806 | U | | 99% | <0.705 | U | | 99% | <0.725 | U | | |
| 2,2',3,3',4,5,5',6'-Octachlorobiphenyl | 68194-17-2 | 7.62 | 7.411 | 99% | <0.652 | U | | 99% | <0.806 | U | | 99% | <0.705 | U | | 99% | <0.725 | U | | |
| 2,2',3,3',4,5,5',6'-Octachlorobiphenyl | 52663-75-9 | 7.62 | 7.411 | 99% | <0.652 | U | | 99% | <0.806 | U | | 99% | <0.705 | U | | 99% | <0.725 | U | | |
| 2,2',3,3',4,5',6,6'-Octachlorobiphenyl | 40186-71-8 | 7.27 | 7.0435 | 99% | 0.706 | | 70.6 | 99% | 0.949 | | 94.9 | 99% | 0.636 | J | 63.6 | 99% | 1.01 | | 101.0 | 0.00914 |
| 2,2',3,3',5,5',6,6'-Octachlorobiphenyl | 2136-99-4 | 7.24 | 7.012 | 99% | <0.652 | U | | 99% | <0.806 | U | | 99% | <0.705 | U | | 99% | <0.725 | U | | |
| 2,2',3,4,4',5,5',6'-Octachlorobiphenyl | 52663-76-0 | 7.65 | 7.4425 | 99% | <0.652 | U | | 99% | 0.414 | J | 41.4 | 99% | <0.705 | U | | 99% | 0.437 | J | 43.7 | 0.00158 |
| 2,2',3,4,4',5,6,6'-Octachlorobiphenyl | 74472-52-9 | 7.25 | 7.0225 | 99% | <1.30 | U | | 99% | <1.61 | U | | 99% | <1.41 | U | | 99% | <1.45 | U | | |
| 2,3,3',4,4',5,5',6'-Octachlorobiphenyl | 74472-53-0 | 8 | 7.81 | 99% | <0.652 | U | | 99% | <0.806 | U | | 99% | <0.705 | U | | 99% | <0.725 | U | | |
| 2,2',3,3',4,4',5,5',6'-Nonachlorobiphenyl | 40186-72-9 | 8.09 | 7.9045 | 99% | <0.652 | U | | 99% | <0.806 | U | | 99% | <0.705 | U | | 99% | <0.725 | U | | |
| 2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl | 52663-79-3 | 7.74 | 7.537 | 99% | <0.652 | U | | 99% | <0.806 | U | | 99% | <0.705 | U | | 99% | <0.725 | U | | |
| 2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl | 52663-77-1 | 7.71 | 7.5055 | 99% | <0.652 | U | | 99% | <0.806 | U | | 99% | <0.705 | U | | 99% | <0.725 | U | | |
| 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl | 2051-24-3 | 8.18 | 7.999 | 99% | <0.652 | U | | 99% | <0.806 | U | | 99% | <0.705 | U | | 99% | <0.725 | U | | |

J = estimated result
U = non-detect
K_{ow} = octanol water partition coefficient
KPE-D = polyethylene water partition coefficient
ng/g = nanogram per gram
ng/L = nanogram per liter

Table 3-11
Sediment Bioaccumulation Test Porewater PCB Results---Dark Head Cove, 2020

| Congener | CAS | Log Kow | Log KPE-D* | PPW01-A | | | | PPW01-B | | | | PPW01-C | | | | PPW01-D | | | |
|--------------------------------|------------|---------|------------|------------|--------|----------------|---------|------------|--------|----------------|---------|------------|--------|----------------|---------|------------|--------|----------------|---------|
| | | | | % Retained | µg/g | µg/g corrected | µg/L | % Retained | µg/g | µg/g corrected | µg/L | % Retained | µg/g | µg/g corrected | µg/L | % Retained | µg/g | µg/g corrected | µg/L |
| 2-Chlorobiphenyl | 2051-60-7 | 4.46 | 4.093 | 0% | <0.712 | | | 8% | <0.720 | | | 8% | <0.776 | | | 8% | <0.662 | | |
| 3-Chlorobiphenyl | 2051-61-8 | 4.69 | 4.3345 | 15% | <0.712 | | | 15% | <0.720 | | | 15% | <0.776 | | | 15% | <0.662 | | |
| 4-Chlorobiphenyl | 2051-62-9 | 4.69 | 4.3345 | 15% | <0.712 | | | 15% | <0.720 | | | 15% | <0.776 | | | 15% | <0.662 | | |
| 3,3'-Dichlorobiphenyl | 2050-67-1 | 5.28 | 4.954 | 32% | <0.712 | | | 32% | <0.720 | | | 32% | <0.776 | | | 32% | <0.662 | | |
| 3,4-Dichlorobiphenyl | 2974-92-7 | 5.22 | 4.891 | 30% | <0.712 | | | 30% | <0.720 | | | 30% | <0.776 | | | 30% | <0.662 | | |
| 3,4'-Dichlorobiphenyl | 2974-90-5 | 5.29 | 4.9645 | 33% | <0.712 | | | 33% | <0.720 | | | 33% | <0.776 | | | 33% | <0.662 | | |
| 3,5-Dichlorobiphenyl | 34883-41-5 | 5.28 | 4.954 | 32% | <0.712 | | | 32% | <0.720 | | | 32% | <0.776 | | | 32% | <0.662 | | |
| 4,4'-Dichlorobiphenyl | 2050-68-2 | 5.3 | 4.975 | 33% | <0.712 | | | 33% | <0.720 | | | 33% | <0.776 | | | 33% | <0.662 | | |
| 2,2'-Dichlorobiphenyl | 13029-08-8 | 4.745 | 4.39225 | 16% | <1.42 | | | 16% | <1.44 | | | 16% | <1.55 | | | 16% | <1.32 | | |
| 2,3-Dichlorobiphenyl | 16605-91-7 | 4.97 | 4.6285 | 23% | <0.712 | | | 23% | <0.720 | | | 23% | <0.776 | | | 23% | <0.662 | | |
| 2,3'-Dichlorobiphenyl | 25569-80-6 | 5.06 | 4.723 | 26% | <0.712 | | | 26% | <0.720 | | | 26% | <0.776 | | | 26% | <0.662 | | |
| 2,4-Dichlorobiphenyl | 33284-50-3 | 5.07 | 4.7335 | 26% | <0.712 | | | 26% | <0.720 | | | 26% | <0.776 | | | 26% | <0.662 | | |
| 2,4'-Dichlorobiphenyl | 34883-43-7 | 5.07 | 4.7335 | 26% | <0.712 | | | 26% | <0.720 | | | 26% | <0.776 | | | 26% | <0.662 | | |
| 2,5-Dichlorobiphenyl | 34883-39-1 | 5.06 | 4.723 | 26% | <0.712 | | | 26% | <0.720 | | | 26% | <0.776 | | | 26% | <0.662 | | |
| 2,2',3-Trichlorobiphenyl | 38444-78-9 | 5.16 | 4.828 | 29% | <0.712 | | | 29% | <0.720 | | | 29% | <0.776 | | | 29% | <0.662 | | |
| 2,2',4-Trichlorobiphenyl | 37680-66-3 | 5.25 | 4.9225 | 31% | <0.712 | | | 31% | <0.720 | | | 31% | <0.776 | | | 31% | <0.662 | | |
| 2,2',5-Trichlorobiphenyl | 37680-65-2 | 5.24 | 4.912 | 31% | <0.712 | | | 31% | <0.720 | | | 31% | <0.776 | | | 31% | <0.662 | | |
| 2,2',6-Trichlorobiphenyl | 38444-73-4 | 5.02 | 4.681 | 25% | <0.712 | | | 25% | <0.720 | | | 25% | <0.776 | | | 25% | <0.662 | | |
| 2,3,3'-Trichlorobiphenyl | 38444-84-7 | 5.54 | 5.227 | 40% | <1.42 | | | 40% | <1.44 | | | 40% | <1.55 | | | 40% | <1.32 | | |
| 2,3,4'-Trichlorobiphenyl | 38444-85-8 | 5.58 | 5.269 | 41% | <0.712 | | | 41% | <0.720 | | | 41% | <0.776 | | | 41% | <0.662 | | |
| 2,3,5-Trichlorobiphenyl | 55720-44-0 | 5.57 | 5.2585 | 41% | <0.712 | | | 41% | <0.720 | | | 41% | <0.776 | | | 41% | <0.662 | | |
| 2,3,6-Trichlorobiphenyl | 55702-45-9 | 5.35 | 5.0275 | 34% | <0.712 | | | 34% | <0.720 | | | 34% | <0.776 | | | 34% | <0.662 | | |
| 2,3',4-Trichlorobiphenyl | 55712-37-3 | 5.67 | 5.3635 | 44% | <0.712 | | | 44% | <0.720 | | | 44% | <0.776 | | | 44% | <0.662 | | |
| 2,3',5-Trichlorobiphenyl | 38444-81-4 | 5.66 | 5.353 | 43% | <0.712 | | | 43% | <0.720 | | | 43% | <0.776 | | | 43% | <0.662 | | |
| 2,3',6-Trichlorobiphenyl | 38444-76-7 | 5.44 | 5.122 | 37% | <0.712 | | | 37% | <0.720 | | | 37% | <0.776 | | | 37% | <0.662 | | |
| 2,4,4'-Trichlorobiphenyl | 7012-37-5 | 5.67 | 5.3635 | 44% | <0.712 | | | 44% | <0.720 | | | 44% | <0.776 | | | 44% | <0.662 | | |
| 2,4,5-Trichlorobiphenyl | 15862-07-4 | 5.6 | 5.29 | 42% | <0.712 | | | 42% | <0.720 | | | 42% | <0.776 | | | 42% | <0.662 | | |
| 2,4,6-Trichlorobiphenyl | 35693-92-6 | 5.44 | 5.122 | 37% | <0.712 | | | 37% | <0.720 | | | 37% | <0.776 | | | 37% | <0.662 | | |
| 2,4',5-Trichlorobiphenyl | 16606-02-3 | 5.67 | 5.3635 | 44% | <0.712 | | | 44% | <0.720 | | | 44% | <0.776 | | | 44% | <0.662 | | |
| 2,4',6-Trichlorobiphenyl | 38444-77-8 | 5.44 | 5.122 | 37% | <0.712 | | | 37% | <0.720 | | | 37% | <0.776 | | | 37% | <0.662 | | |
| 2,3',4'-Trichlorobiphenyl | 38444-86-9 | 5.6 | 5.29 | 42% | <0.712 | | | 42% | <0.720 | | | 42% | <0.776 | | | 42% | <0.662 | | |
| 2,3',5'-Trichlorobiphenyl | 37680-68-5 | 5.66 | 5.353 | 43% | <0.712 | | | 43% | <0.720 | | | 43% | <0.776 | | | 43% | <0.662 | | |
| 3,3',4-Trichlorobiphenyl | 37680-69-6 | 5.82 | 5.521 | 48% | <0.712 | | | 48% | <0.720 | | | 48% | <0.776 | | | 48% | <0.662 | | |
| 3,3',5-Trichlorobiphenyl | 38444-87-0 | 5.88 | 5.584 | 50% | <0.712 | | | 50% | <0.720 | | | 50% | <0.776 | | | 50% | <0.662 | | |
| 3,4,4'-Trichlorobiphenyl | 38444-90-5 | 5.83 | 5.5315 | 48% | <0.712 | | | 48% | <0.720 | | | 48% | <0.776 | | | 48% | <0.662 | | |
| 3,4,5-Trichlorobiphenyl | 53555-66-1 | 5.76 | 5.458 | 46% | <0.712 | | | 46% | <0.720 | | | 46% | <0.776 | | | 46% | <0.662 | | |
| 3,4',5-Trichlorobiphenyl | 38444-88-1 | 5.89 | 5.5945 | 50% | <0.712 | | | 50% | <0.720 | | | 50% | <0.776 | | | 50% | <0.662 | | |
| 2,2',3,3'-Tetrachlorobiphenyl | 38444-93-8 | 5.66 | 5.353 | 43% | <0.712 | | | 43% | <0.720 | | | 43% | <0.776 | | | 43% | <0.662 | | |
| 2,2',3,4-Tetrachlorobiphenyl | 52663-59-9 | 5.69 | 5.3845 | 44% | <0.712 | | | 44% | <0.720 | | | 44% | <0.776 | | | 44% | <0.662 | | |
| 2,2',3,4'-Tetrachlorobiphenyl | 36559-22-5 | 5.76 | 5.458 | 46% | <0.712 | | | 46% | <0.720 | | | 46% | <0.776 | | | 46% | <0.662 | | |
| 2,2',3,5-Tetrachlorobiphenyl | 70362-46-8 | 5.75 | 5.4475 | 46% | <0.712 | | | 46% | <0.720 | | | 46% | <0.776 | | | 46% | <0.662 | | |
| 2,2',3,5'-Tetrachlorobiphenyl | 41464-39-5 | 5.75 | 5.4475 | 46% | <0.712 | | | 46% | <0.720 | | | 46% | <0.776 | | | 46% | <0.662 | | |
| 2,2',3,6-Tetrachlorobiphenyl | 70362-45-7 | 5.53 | 5.2165 | 40% | <0.712 | | | 40% | <0.720 | | | 40% | <0.776 | | | 40% | <0.662 | | |
| 2,2',4,4'-Tetrachlorobiphenyl | 2437-79-8 | 5.85 | 5.5525 | 49% | 1.15 | 2.26 | 0.00633 | 49% | 1.01 | 1.98 | 0.00556 | 49% | 0.978 | 1.92 | 0.00538 | 49% | 1.11 | 2.18 | 0.00611 |
| 2,2',4,5-Tetrachlorobiphenyl | 70362-47-9 | 5.78 | 5.479 | 47% | <0.712 | | | 47% | <0.720 | | | 47% | <0.776 | | | 47% | <0.662 | | |
| 2,2',4,5'-Tetrachlorobiphenyl | 41464-40-8 | 5.85 | 5.5525 | 49% | 0.633 | 1.24 | 0.00348 | 49% | 0.53 | 1.04 | 0.00292 | 49% | 0.531 | 1.04 | 0.00292 | 49% | 0.678 | 1.33 | 0.00373 |
| 2,2',4,6-Tetrachlorobiphenyl | 62796-65-0 | 5.63 | 5.3215 | 43% | <0.712 | | | 43% | <0.720 | | | 43% | <0.776 | | | 43% | <0.662 | | |
| 2,2',4,6'-Tetrachlorobiphenyl | 68194-04-7 | 5.63 | 5.3215 | 43% | 0.754 | 1.31 | 0.00626 | 43% | 0.622 | 1.08 | 0.00517 | 43% | 0.573 | 1.00 | 0.00476 | 43% | 0.683 | 1.19 | 0.00567 |
| 2,2',5,5'-Tetrachlorobiphenyl | 35693-99-3 | 5.84 | 5.542 | 49% | <0.712 | | | 49% | <0.720 | | | 49% | <0.776 | | | 49% | <0.662 | | |
| 2,2',5,6-Tetrachlorobiphenyl | 41464-41-9 | 5.62 | 5.311 | 42% | 0.536 | 0.93 | 0.00454 | 42% | 0.472 | 0.82 | 0.00400 | 42% | 0.393 | 0.68 | 0.00333 | 42% | 0.45 | 0.78 | 0.00381 |
| 2,2',6,6'-Tetrachlorobiphenyl | 15968-05-5 | 5.21 | 4.8805 | 30% | <0.712 | | | 30% | <0.720 | | | 30% | <0.776 | | | 30% | <0.662 | | |
| 2,3,3',4-Tetrachlorobiphenyl | 74338-24-2 | 6.11 | 5.8255 | 57% | <0.712 | | | 57% | <0.720 | | | 57% | <0.776 | | | 57% | <0.662 | | |
| 2,3,3',4'-Tetrachlorobiphenyl | 41464-43-1 | 6.11 | 5.8255 | 57% | <0.712 | | | 57% | <0.720 | | | 57% | <0.776 | | | 57% | <0.662 | | |
| 2,3,3',5-Tetrachlorobiphenyl | 70424-67-8 | 6.17 | 5.8885 | 59% | <0.712 | | | 59% | <0.720 | | | 59% | <0.776 | | | 59% | <0.662 | | |
| 2,3,3',6-Tetrachlorobiphenyl | 74472-33-6 | 5.95 | 5.6575 | 52% | <0.712 | | | 52% | <0.720 | | | 52% | <0.776 | | | 52% | <0.662 | | |
| 2,3,4,4'-Tetrachlorobiphenyl | 33025-41-1 | 6.11 | 5.8255 | 57% | <0.712 | | | 57% | <0.720 | | | 57% | <0.776 | | | 57% | <0.662 | | |
| 2,3,4,5-Tetrachlorobiphenyl | 33284-53-6 | 6.04 | 5.752 | 55% | <0.712 | | | 55% | <0.720 | | | 55% | <0.776 | | | 55% | <0.662 | | |
| 2,3,4',5-Tetrachlorobiphenyl | 74472-34-7 | 6.17 | 5.8885 | 59% | <0.712 | | | 59% | <0.720 | | | 59% | <0.776 | | | 59% | <0.662 | | |
| 2,3,5,6-Tetrachlorobiphenyl | 33284-54-7 | 5.933 | 5.64 | 52% | <2.14 | | | 52% | <2.16 | | | 52% | <2.33 | | | 52% | <1.98 | | |
| 2,3',4,4'-Tetrachlorobiphenyl | 32598-10-0 | 6.2 | 5.92 | 59% | <0.712 | | | 59% | <0.720 | | | 59% | <0.776 | | | 59% | <0.662 | | |
| 2,3',4,5-Tetrachlorobiphenyl | 73575-53-8 | 6.185 | 5.90425 | 59% | <1.42 | | | 59% | <1.44 | | | 59% | <1.55 | | | 59% | <1.32 | | |
| 2,3',4,5'-Tetrachlorobiphenyl | 73575-52-7 | 6.105 | 5.82025 | 57% | <1.42 | | | 57% | <1.44 | | | 57% | <1.55 | | | 57% | <1.32 | | |
| 2,3',4,6-Tetrachlorobiphenyl | 60233-24-1 | 6.04 | 5.752 | 55% | <0.712 | | | 55% | <0.720 | | | 55% | <0.776 | | | 55% | <0.662 | | |
| 2,3',4',5-Tetrachlorobiphenyl | 32598-11-1 | 6.2 | 5.92 | 59% | <0.712 | | | 59% | <0.720 | | | 59% | <0.776 | | | 59% | <0.662 | | |
| 2,3',4',6-Tetrachlorobiphenyl | 41464-46-4 | 5.98 | 5.689 | 53% | <0.712 | | | 53% | <0.720 | | | 53% | <0.776 | | | 53% | <0.662 | | |
| 2,3',5,5'-Tetrachlorobiphenyl | 41464-42-0 | 6.26 | 5.983 | 61% | <0.712 | | | 61% | <0.720 | | | 61% | <0.776 | | | 61% | <0.662 | | |
| 2,3',5',6-Tetrachlorobiphenyl | 74338-23-1 | 5.785 | 5.48425 | 47% | <1.42 | | | 47% | <1.44 | | | 47% | <1.55 | | | 47% | <1.32 | | |
| 2,4,4',5-Tetrachlorobiphenyl | 32690-93-0 | 6.2 | 5.92 | 59% | <0.712 | | | 59% | <0.720 | | | 59% | <0.776 | | | 59% | <0.662 | | |
| 2,3',4',5'-Tetrachlorobiphenyl | 70362-48-0 | 6.13 | 5.8465 | 57% | <0.712 | | | 57% | <0.720 | | | 57% | <0.776 | | | 57% | <0.662 | | |

Table 3-11
Sediment Bioaccumulation Test Porewater PCB Results---Dark Head Cove, 2020

| Congener | CAS | Log Kow | Log KPE-D* | PPW01-A | | | | PPW01-B | | | | PPW01-C | | | | PPW01-D | | | |
|---|------------|---------|------------|------------|--------|----------------|---------|------------|--------|----------------|---------|------------|--------|----------------|---------|------------|--------|----------------|---------|
| | | | | % Retained | µg/g | µg/g corrected | µg/L | % Retained | µg/g | µg/g corrected | µg/L | % Retained | µg/g | µg/g corrected | µg/L | % Retained | µg/g | µg/g corrected | µg/L |
| 2,3,3',4,4',5'-Hexachlorobiphenyl | 68782-90-7 | 7.18 | 6.949 | 88% | <0.712 | | | 88% | <0.720 | | | 99% | <0.776 | | | 88% | <0.662 | | |
| 2,3,3',4,5,5'-Hexachlorobiphenyl | 39635-35-3 | 7.24 | 7.012 | 90% | <0.712 | | | 90% | <0.720 | | | 99% | <0.776 | | | 99% | <0.662 | | |
| 2,3,3',4,5',6-Hexachlorobiphenyl | 74472-43-8 | 7.08 | 6.844 | 85% | <0.712 | | | 85% | <0.720 | | | 99% | <0.776 | | | 85% | <0.662 | | |
| 2,3,3',4',5,5'-Hexachlorobiphenyl | 39635-34-2 | 7.24 | 7.012 | 90% | <0.712 | | | 90% | <0.720 | | | 99% | <0.776 | | | 99% | <0.662 | | |
| 2,3,3',4',5,6-Hexachlorobiphenyl | 74472-44-9 | 6.96 | 6.718 | 82% | <1.42 | | | 82% | <1.44 | | | 82% | <1.55 | | | 82% | <1.32 | | |
| 2,3,3',5,5',6-Hexachlorobiphenyl | 74472-46-1 | 7.05 | 6.8125 | 85% | <0.712 | | | 85% | <0.720 | | | 85% | <0.776 | | | 85% | <0.662 | | |
| 2,3,4,4',5,6-Hexachlorobiphenyl | 41411-63-6 | 6.93 | 6.6865 | 81% | <0.712 | | | 81% | <0.720 | | | 81% | <0.776 | | | 81% | <0.662 | | |
| 2,3',4,4',5,5'-Hexachlorobiphenyl | 52663-72-6 | 7.27 | 7.0435 | 91% | <0.712 | | | 91% | <0.720 | | | 99% | <0.776 | | | 99% | <0.662 | | |
| 2,3',4,4',5',6-Hexachlorobiphenyl | 59291-65-5 | 7.11 | 6.8755 | 86% | <0.712 | | | 86% | <0.720 | | | 99% | <0.776 | | | 86% | <0.662 | | |
| 3,3',4,4',5,5'-Hexachlorobiphenyl | 32774-16-6 | 7.42 | 7.201 | 96% | <0.712 | | | 96% | <0.720 | | | 99% | <0.776 | | | 99% | <0.662 | | |
| 2,2',3,3',4,4',5-Hexachlorobiphenyl | 35065-30-6 | 7.27 | 7.0435 | 91% | 0.664 | 7.5 | 0.00067 | 91% | 0.803 | 9.0 | 0.00082 | 99% | 0.483 | 48.3 | 0.00437 | 99% | 0.594 | 59.4 | 0.00537 |
| 2,2',3,3',4,4',6-Heptachlorobiphenyl | 52663-71-5 | 7.11 | 6.8755 | 86% | <0.712 | | | 86% | <0.720 | | | 99% | <0.776 | | | 86% | <0.662 | | |
| 2,2',3,3',4,5,5'-Heptachlorobiphenyl | 52663-74-8 | 7.33 | 7.1065 | 93% | <0.712 | | | 93% | <0.720 | | | 99% | <0.776 | | | 99% | <0.662 | | |
| 2,2',3,3',4,5,6-Heptachlorobiphenyl | 68194-16-1 | 7.02 | 6.781 | 84% | <0.712 | | | 84% | <0.720 | | | 84% | <0.776 | | | 84% | <0.662 | | |
| 2,2',3,3',4,5,6'-Heptachlorobiphenyl | 38411-25-5 | 7.11 | 6.8755 | 86% | 0.792 | 5.81 | 0.00077 | 86% | 0.776 | 5.69 | 0.00076 | 99% | 0.905 | 90.50 | 0.01205 | 86% | 0.734 | 5.38 | 0.00072 |
| 2,2',3,3',4,6,6'-Heptachlorobiphenyl | 52663-65-7 | 6.76 | 6.508 | 76% | <0.712 | | | 76% | <0.720 | | | 76% | <0.776 | | | 76% | <0.662 | | |
| 2,2',3,3',4,5',6'-Heptachlorobiphenyl | 52663-70-4 | 7.08 | 6.844 | 85% | 0.526 | 3.62 | 0.00052 | 85% | 0.557 | 3.83 | 0.00055 | 99% | 0.545 | 54.50 | 0.00781 | 85% | 0.598 | 4.12 | 0.00059 |
| 2,2',3,3',5,5',6-Heptachlorobiphenyl | 52663-67-9 | 7.14 | 6.907 | 87% | <0.712 | | | 87% | <0.720 | | | 99% | <0.776 | | | 87% | <0.662 | | |
| 2,2',3,3',5,6,6'-Heptachlorobiphenyl | 52663-64-6 | 6.73 | 6.4765 | 75% | 0.581 | 2.33 | 0.00078 | 75% | 0.564 | 2.27 | 0.00076 | 75% | 0.669 | 2.69 | 0.00090 | 75% | 0.548 | 2.20 | 0.00074 |
| 2,2',3,4,4',5,5'-Heptachlorobiphenyl | 35065-29-3 | 7.36 | 7.138 | 94% | 1.06 | 17 | 0.00124 | 94% | 0.805 | 13 | 0.00094 | 99% | 1.02 | 102 | 0.00742 | 99% | 0.962 | 96 | 0.00700 |
| 2,2',3,4,4',5,6-Heptachlorobiphenyl | 74472-47-2 | 7.11 | 6.8755 | 86% | <0.712 | | | 86% | <0.720 | | | 99% | <0.776 | | | 86% | <0.662 | | |
| 2,2',3,4,4',5,6'-Heptachlorobiphenyl | 60145-23-5 | 7.185 | 6.95425 | 89% | <1.42 | | | 89% | <1.44 | | | 99% | <1.55 | | | 89% | <1.32 | | |
| 2,2',3,4,4',5',6-Heptachlorobiphenyl | 52663-69-1 | 7.2 | 6.97 | 89% | 0.643 | 5.86 | 0.00063 | 89% | 0.644 | 5.87 | 0.00063 | 99% | 0.747 | 74.70 | 0.00800 | 89% | 0.529 | 4.82 | 0.00052 |
| 2,2',3,4,4',6,6'-Heptachlorobiphenyl | 74472-48-3 | 6.85 | 6.6025 | 79% | <0.712 | | | 79% | <0.720 | | | 79% | <0.776 | | | 79% | <0.662 | | |
| 2,2',3,4,5,5',6-Heptachlorobiphenyl | 52712-05-7 | 7.11 | 6.8755 | 86% | <0.712 | | | 86% | <0.720 | | | 99% | <0.776 | | | 86% | <0.662 | | |
| 2,2',3,4,5,6,6'-Heptachlorobiphenyl | 74472-49-4 | 6.69 | 6.4345 | 74% | <0.712 | | | 74% | <0.720 | | | 74% | <0.776 | | | 74% | <0.662 | | |
| 2,2',3,4',5,5',6-Heptachlorobiphenyl | 52663-68-0 | 7.17 | 6.9385 | 88% | 1.25 | 11 | 0.00121 | 88% | 1.1 | 9 | 0.00107 | 99% | 1.2 | 120 | 0.01383 | 88% | 0.958 | 8 | 0.00093 |
| 2,2',3,4',5,6,6'-Heptachlorobiphenyl | 74487-85-7 | 6.82 | 6.571 | 78% | <0.712 | | | 78% | <0.720 | | | 78% | <0.776 | | | 78% | <0.662 | | |
| 2,3,3',4,4',5,5'-Heptachlorobiphenyl | 39635-31-9 | 7.71 | 7.5055 | 99% | <0.712 | | | 99% | <0.720 | | | 99% | <0.776 | | | 99% | <0.662 | | |
| 2,3,3',4,4',5,6-Heptachlorobiphenyl | 41411-64-7 | 7.46 | 7.243 | 97% | <0.712 | | | 99% | <0.720 | | | 99% | <0.776 | | | 99% | <0.662 | | |
| 2,3,3',4,4',5',6-Heptachlorobiphenyl | 74472-50-7 | 7.55 | 7.3375 | 99% | <0.712 | | | 99% | <0.720 | | | 99% | <0.776 | | | 99% | <0.662 | | |
| 2,3,3',4,5,5',6-Heptachlorobiphenyl | 74472-51-8 | 7.52 | 7.306 | 98% | <0.712 | | | 99% | <0.720 | | | 99% | <0.776 | | | 99% | <0.662 | | |
| 2,3,3',4,5,5',6-Heptachlorobiphenyl | 69782-91-8 | 7.52 | 7.306 | 98% | <0.712 | | | 99% | <0.720 | | | 99% | <0.776 | | | 99% | <0.662 | | |
| 2,2',3,3',4,4',5,5'-Octachlorobiphenyl | 35694-08-7 | 7.8 | 7.6 | 107% | <0.712 | | | 99% | <0.720 | | | 99% | <0.776 | | | 99% | <0.662 | | |
| 2,2',3,3',4,4',5,6-Octachlorobiphenyl | 52663-78-2 | 7.56 | 7.348 | 100% | <0.712 | | | 99% | <0.720 | | | 99% | <0.776 | | | 99% | <0.662 | | |
| 2,2',3,3',4,4',5,6'-Octachlorobiphenyl | 42740-50-1 | 7.65 | 7.4425 | 102% | <0.712 | | | 99% | <0.720 | | | 99% | <0.776 | | | 99% | <0.662 | | |
| 2,2',3,3',4,4',6,6'-Octachlorobiphenyl | 33091-17-7 | 7.3 | 7.075 | 92% | <0.712 | | | 92% | <0.720 | | | 99% | <0.776 | | | 99% | <0.662 | | |
| 2,2',3,3',4,5,5',6-Octachlorobiphenyl | 68194-17-2 | 7.62 | 7.411 | 101% | <0.712 | | | 99% | <0.720 | | | 99% | <0.776 | | | 99% | <0.662 | | |
| 2,2',3,3',4,5,5',6'-Octachlorobiphenyl | 52663-75-9 | 7.62 | 7.411 | 101% | <0.712 | | | 99% | <0.720 | | | 99% | <0.776 | | | 99% | <0.662 | | |
| 2,2',3,3',4,5',6,6'-Octachlorobiphenyl | 40186-71-8 | 7.27 | 7.0435 | 91% | 0.366 | 4.1 | 0.00037 | 91% | 0.433 | 4.9 | 0.00044 | 99% | 0.424 | 42.4 | 0.00384 | 99% | <0.662 | | |
| 2,2',3,3',5,5',6,6'-Octachlorobiphenyl | 2136-99-4 | 7.24 | 7.012 | 90% | <0.712 | | | 90% | <0.720 | | | 99% | <0.776 | | | 99% | <0.662 | | |
| 2,2',3,4,4',5,5',6-Octachlorobiphenyl | 52663-76-0 | 7.65 | 7.4425 | 102% | <0.712 | | | 99% | <0.720 | | | 99% | <0.776 | | | 99% | <0.662 | | |
| 2,2',3,4,4',5,6,6'-Octachlorobiphenyl | 74472-52-9 | 7.25 | 7.0225 | 91% | <1.42 | | | 91% | <1.44 | | | 99% | <1.55 | | | 99% | <1.32 | | |
| 2,3,3',4,4',5,5',6-Octachlorobiphenyl | 74472-53-0 | 8 | 7.81 | 99% | <0.712 | | | 99% | <0.720 | | | 99% | <0.776 | | | 99% | <0.662 | | |
| 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl | 40186-72-9 | 8.09 | 7.9045 | 99% | <0.712 | | | 99% | <0.720 | | | 99% | <0.776 | | | 99% | <0.662 | | |
| 2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl | 52663-79-3 | 7.74 | 7.537 | 99% | <0.712 | | | 99% | <0.720 | | | 99% | <0.776 | | | 99% | <0.662 | | |
| 2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl | 52663-77-1 | 7.71 | 7.5055 | 99% | <0.712 | | | 99% | <0.720 | | | 99% | <0.776 | | | 99% | <0.662 | | |
| 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl | 2051-24-3 | 8.18 | 7.999 | 99% | <0.712 | | | 99% | <0.720 | | | 99% | <0.776 | | | 99% | <0.662 | | |

Kow = octanol water partition coefficient
KPE-D = polyethylene water partition coefficient
µg/g = microgram per gram
µg/L = microgram per liter

**Table 3-11
Sediment Bioaccumulation Test Porewater PCB Results---Dark Head Cove, 2020**

| Congener | CAS | Log Kow | Log KPE-D* | PPW02-A | | | | PPW02-B | | | | PPW02-C | | | | PPW02-D | | | |
|--------------------------------|------------|---------|------------|------------|--------|----------------|---------|------------|--------|----------------|---------|------------|--------|----------------|---------|------------|--------|----------------|---------|
| | | | | % Retained | µg/g | µg/g corrected | µg/L | % Retained | µg/g | µg/g corrected | µg/L | % Retained | µg/g | µg/g corrected | µg/L | % Retained | µg/g | µg/g corrected | µg/L |
| 2-Chlorobiphenyl | 2051-60-7 | 4.46 | 4.093 | 8% | <0.650 | | | 8% | <0.711 | | | 8% | <0.689 | | | 8% | <0.622 | | |
| 3-Chlorobiphenyl | 2051-61-8 | 4.69 | 4.3345 | 15% | <0.650 | | | 15% | <0.711 | | | 15% | <0.689 | | | 15% | <0.622 | | |
| 4-Chlorobiphenyl | 2051-62-9 | 4.69 | 4.3345 | 15% | <0.650 | | | 15% | <0.711 | | | 15% | <0.689 | | | 15% | <0.622 | | |
| 3,3'-Dichlorobiphenyl | 2050-67-1 | 5.28 | 4.954 | 32% | <0.650 | | | 32% | <0.711 | | | 32% | <0.689 | | | 32% | <0.622 | | |
| 3,4-Dichlorobiphenyl | 2974-92-7 | 5.22 | 4.891 | 30% | <0.650 | | | 30% | <0.711 | | | 30% | <0.689 | | | 30% | <0.622 | | |
| 3,4'-Dichlorobiphenyl | 2974-90-5 | 5.29 | 4.9645 | 33% | <0.650 | | | 33% | <0.711 | | | 33% | <0.689 | | | 33% | <0.622 | | |
| 3,5-Dichlorobiphenyl | 34883-41-5 | 5.28 | 4.954 | 32% | <0.650 | | | 32% | <0.711 | | | 32% | <0.689 | | | 32% | <0.622 | | |
| 4,4'-Dichlorobiphenyl | 2050-68-2 | 5.3 | 4.975 | 33% | <0.650 | | | 33% | <0.711 | | | 33% | <0.689 | | | 33% | <0.622 | | |
| 2,2'-Dichlorobiphenyl | 13029-08-8 | 4.745 | 4.39225 | 16% | <1.30 | | | 16% | <1.42 | | | 16% | <1.38 | | | 16% | <1.24 | | |
| 2,3-Dichlorobiphenyl | 16605-91-7 | 4.97 | 4.6285 | 23% | <0.650 | | | 23% | <0.711 | | | 23% | <0.689 | | | 23% | <0.622 | | |
| 2,3'-Dichlorobiphenyl | 25569-80-6 | 5.06 | 4.723 | 26% | <0.650 | | | 26% | <0.711 | | | 26% | <0.689 | | | 26% | <0.622 | | |
| 2,4-Dichlorobiphenyl | 33284-50-3 | 5.07 | 4.7335 | 26% | <0.650 | | | 26% | <0.711 | | | 26% | <0.689 | | | 26% | <0.622 | | |
| 2,4'-Dichlorobiphenyl | 34883-43-7 | 5.07 | 4.7335 | 26% | <0.650 | | | 26% | <0.711 | | | 26% | <0.689 | | | 26% | <0.622 | | |
| 2,5-Dichlorobiphenyl | 34883-39-1 | 5.06 | 4.723 | 26% | <0.650 | | | 26% | <0.711 | | | 26% | <0.689 | | | 26% | <0.622 | | |
| 2,2',3-Trichlorobiphenyl | 38444-78-9 | 5.16 | 4.828 | 29% | <0.650 | | | 29% | <0.711 | | | 29% | <0.689 | | | 29% | <0.622 | | |
| 2,2',4-Trichlorobiphenyl | 37680-66-3 | 5.25 | 4.9225 | 31% | <0.650 | | | 31% | <0.711 | | | 31% | <0.689 | | | 31% | <0.622 | | |
| 2,2',5-Trichlorobiphenyl | 37680-65-2 | 5.24 | 4.912 | 31% | <0.650 | | | 31% | <0.711 | | | 31% | <0.689 | | | 31% | <0.622 | | |
| 2,2',6-Trichlorobiphenyl | 38444-73-4 | 5.02 | 4.681 | 25% | <0.650 | | | 25% | <0.711 | | | 25% | <0.689 | | | 25% | <0.622 | | |
| 2,3,3'-Trichlorobiphenyl | 38444-84-7 | 5.54 | 5.227 | 40% | <1.30 | | | 40% | <1.42 | | | 40% | <1.38 | | | 40% | <1.24 | | |
| 2,3,4'-Trichlorobiphenyl | 38444-85-8 | 5.58 | 5.269 | 41% | <0.650 | | | 41% | <0.711 | | | 41% | <0.689 | | | 41% | <0.622 | | |
| 2,3,5-Trichlorobiphenyl | 55720-44-0 | 5.57 | 5.2585 | 41% | <0.650 | | | 41% | <0.711 | | | 41% | <0.689 | | | 41% | <0.622 | | |
| 2,3,6-Trichlorobiphenyl | 55702-45-9 | 5.35 | 5.0275 | 34% | <0.650 | | | 34% | <0.711 | | | 34% | <0.689 | | | 34% | <0.622 | | |
| 2,3',4-Trichlorobiphenyl | 55712-37-3 | 5.67 | 5.3635 | 44% | <0.650 | | | 44% | <0.711 | | | 44% | <0.689 | | | 44% | <0.622 | | |
| 2,3',5-Trichlorobiphenyl | 38444-81-4 | 5.66 | 5.353 | 43% | <0.650 | | | 43% | <0.711 | | | 43% | <0.689 | | | 43% | <0.622 | | |
| 2,3',6-Trichlorobiphenyl | 38444-76-7 | 5.44 | 5.122 | 37% | <0.650 | | | 37% | <0.711 | | | 37% | <0.689 | | | 37% | <0.622 | | |
| 2,4,4'-Trichlorobiphenyl | 7012-37-5 | 5.67 | 5.3635 | 44% | <0.650 | | | 44% | <0.711 | | | 44% | <0.689 | | | 44% | <0.622 | | |
| 2,4,5-Trichlorobiphenyl | 15862-07-4 | 5.6 | 5.29 | 42% | <0.650 | | | 42% | <0.711 | | | 42% | <0.689 | | | 42% | <0.622 | | |
| 2,4,6-Trichlorobiphenyl | 35693-92-6 | 5.44 | 5.122 | 37% | <0.650 | | | 37% | <0.711 | | | 37% | <0.689 | | | 37% | <0.622 | | |
| 2,4',5-Trichlorobiphenyl | 16606-02-3 | 5.67 | 5.3635 | 44% | <0.650 | | | 44% | <0.711 | | | 44% | <0.689 | | | 44% | <0.622 | | |
| 2,4',6-Trichlorobiphenyl | 38444-77-8 | 5.44 | 5.122 | 37% | <0.650 | | | 37% | <0.711 | | | 37% | <0.689 | | | 37% | <0.622 | | |
| 2,3',4'-Trichlorobiphenyl | 38444-86-9 | 5.6 | 5.29 | 42% | <0.650 | | | 42% | <0.711 | | | 42% | <0.689 | | | 42% | <0.622 | | |
| 2,3',5'-Trichlorobiphenyl | 37680-68-5 | 5.66 | 5.353 | 43% | <0.650 | | | 43% | <0.711 | | | 43% | <0.689 | | | 43% | <0.622 | | |
| 3,3',4-Trichlorobiphenyl | 37680-69-6 | 5.82 | 5.521 | 48% | <0.650 | | | 48% | <0.711 | | | 48% | <0.689 | | | 48% | <0.622 | | |
| 3,3',5-Trichlorobiphenyl | 38444-87-0 | 5.88 | 5.584 | 50% | <0.650 | | | 50% | <0.711 | | | 50% | <0.689 | | | 50% | <0.622 | | |
| 3,4,4'-Trichlorobiphenyl | 38444-90-5 | 5.83 | 5.5315 | 48% | <0.650 | | | 48% | <0.711 | | | 48% | <0.689 | | | 48% | <0.622 | | |
| 3,4,5-Trichlorobiphenyl | 53555-66-1 | 5.76 | 5.458 | 46% | <0.650 | | | 46% | <0.711 | | | 46% | <0.689 | | | 46% | <0.622 | | |
| 3,4',5-Trichlorobiphenyl | 38444-88-1 | 5.89 | 5.5945 | 50% | <0.650 | | | 50% | <0.711 | | | 50% | <0.689 | | | 50% | <0.622 | | |
| 2,2',3,3'-Tetrachlorobiphenyl | 38444-93-8 | 5.66 | 5.353 | 43% | <0.650 | | | 43% | <0.711 | | | 43% | <0.689 | | | 43% | <0.622 | | |
| 2,2',3,4-Tetrachlorobiphenyl | 52663-59-9 | 5.69 | 5.3845 | 44% | <0.650 | | | 44% | <0.711 | | | 44% | <0.689 | | | 44% | <0.622 | | |
| 2,2',3,4'-Tetrachlorobiphenyl | 36559-22-5 | 5.76 | 5.458 | 46% | <0.650 | | | 46% | <0.711 | | | 46% | <0.689 | | | 46% | <0.622 | | |
| 2,2',3,5-Tetrachlorobiphenyl | 70362-46-8 | 5.75 | 5.4475 | 46% | <0.650 | | | 46% | <0.711 | | | 46% | <0.689 | | | 46% | <0.622 | | |
| 2,2',3,5'-Tetrachlorobiphenyl | 41464-39-5 | 5.75 | 5.4475 | 46% | <0.650 | | | 46% | <0.711 | | | 46% | <0.689 | | | 46% | <0.622 | | |
| 2,2',3,6-Tetrachlorobiphenyl | 70362-45-7 | 5.53 | 5.2165 | 40% | <0.650 | | | 40% | <0.711 | | | 40% | <0.689 | | | 40% | <0.622 | | |
| 2,2',4,4'-Tetrachlorobiphenyl | 2437-79-8 | 5.85 | 5.5525 | 49% | 1.93 | 3.79 | 0.01062 | 49% | 1.78 | 3.50 | 0.00979 | 49% | 1.56 | 3.06 | 0.00858 | 49% | 2.04 | 4.01 | 0.01123 |
| 2,2',4,5-Tetrachlorobiphenyl | 70362-47-9 | 5.78 | 5.479 | 47% | <0.650 | | | 47% | <0.711 | | | 47% | <0.689 | | | 47% | <0.622 | | |
| 2,2',4,5'-Tetrachlorobiphenyl | 41464-40-8 | 5.85 | 5.5525 | 49% | 1.06 | 2.08 | 0.00583 | 49% | 1.02 | 2.00 | 0.00561 | 49% | 0.809 | 1.59 | 0.00445 | 49% | 1.03 | 2.02 | 0.00567 |
| 2,2',4,6-Tetrachlorobiphenyl | 62796-65-0 | 5.63 | 5.3215 | 43% | <0.650 | | | 43% | <0.711 | | | 43% | <0.689 | | | 43% | <0.622 | | |
| 2,2',4,6'-Tetrachlorobiphenyl | 68194-04-7 | 5.63 | 5.3215 | 43% | 1.65 | 2.87 | 0.01370 | 43% | 1.51 | 2.63 | 0.01254 | 43% | 1.22 | 2.12 | 0.01013 | 43% | 1.52 | 2.65 | 0.01262 |
| 2,2',5,5'-Tetrachlorobiphenyl | 35693-99-3 | 5.84 | 5.542 | 49% | 0.364 | 0.71 | 0.00204 | 49% | 0.462 | 0.90 | 0.00259 | 49% | <0.689 | | | 49% | 0.345 | 0.67 | 0.00193 |
| 2,2',5,6-Tetrachlorobiphenyl | 41464-41-9 | 5.62 | 5.311 | 42% | 0.948 | 1.64 | 0.00802 | 42% | 1.03 | 1.78 | 0.00872 | 42% | 0.916 | 1.59 | 0.00775 | 42% | 0.829 | 1.44 | 0.00702 |
| 2,2',6,6'-Tetrachlorobiphenyl | 15968-05-5 | 5.21 | 4.8805 | 30% | 0.384 | 0.55 | 0.00724 | 30% | 0.401 | 0.57 | 0.00756 | 30% | <0.689 | | | 30% | 0.321 | 0.46 | 0.00605 |
| 2,3,3',4-Tetrachlorobiphenyl | 74338-24-2 | 6.11 | 5.8255 | 57% | <0.650 | | | 57% | <0.711 | | | 57% | <0.689 | | | 57% | <0.622 | | |
| 2,3,3',4'-Tetrachlorobiphenyl | 41464-43-1 | 6.11 | 5.8255 | 57% | <0.650 | | | 57% | <0.711 | | | 57% | <0.689 | | | 57% | <0.622 | | |
| 2,3,3',5-Tetrachlorobiphenyl | 70424-67-8 | 6.17 | 5.8885 | 59% | <0.650 | | | 59% | <0.711 | | | 59% | <0.689 | | | 59% | <0.622 | | |
| 2,3,3',6-Tetrachlorobiphenyl | 74472-33-6 | 5.95 | 5.6575 | 52% | <0.650 | | | 52% | <0.711 | | | 52% | <0.689 | | | 52% | <0.622 | | |
| 2,3,4,4'-Tetrachlorobiphenyl | 33025-41-1 | 6.11 | 5.8255 | 57% | <0.650 | | | 57% | <0.711 | | | 57% | <0.689 | | | 57% | <0.622 | | |
| 2,3,4,5-Tetrachlorobiphenyl | 33284-53-6 | 6.04 | 5.752 | 55% | <0.650 | | | 55% | <0.711 | | | 55% | <0.689 | | | 55% | <0.622 | | |
| 2,3,4',5-Tetrachlorobiphenyl | 74472-34-7 | 6.17 | 5.8885 | 59% | <0.650 | | | 59% | <0.711 | | | 59% | <0.689 | | | 59% | <0.622 | | |
| 2,3,5,6-Tetrachlorobiphenyl | 33284-54-7 | 5.933 | 5.64 | 52% | <1.95 | | | 52% | <2.13 | | | 52% | <2.07 | | | 52% | <1.87 | | |
| 2,3',4,4'-Tetrachlorobiphenyl | 32598-10-0 | 6.2 | 5.92 | 59% | <0.650 | | | 59% | <0.711 | | | 59% | <0.689 | | | 59% | <0.622 | | |
| 2,3',4,5-Tetrachlorobiphenyl | 73575-53-8 | 6.185 | 5.90425 | 59% | <1.30 | | | 59% | <1.42 | | | 59% | <1.38 | | | 59% | <1.24 | | |
| 2,3',4,5'-Tetrachlorobiphenyl | 73575-52-7 | 6.105 | 5.82025 | 57% | <1.30 | | | 57% | <1.42 | | | 57% | <1.38 | | | 57% | <1.24 | | |
| 2,3',4,6-Tetrachlorobiphenyl | 60233-24-1 | 6.04 | 5.752 | 55% | <0.650 | | | 55% | <0.711 | | | 55% | <0.689 | | | 55% | <0.622 | | |
| 2,3',4',5-Tetrachlorobiphenyl | 32598-11-1 | 6.2 | 5.92 | 59% | <0.650 | | | 59% | <0.711 | | | 59% | <0.689 | | | 59% | <0.622 | | |
| 2,3',4',6-Tetrachlorobiphenyl | 41464-46-4 | 5.98 | 5.689 | 53% | <0.650 | | | 53% | <0.711 | | | 53% | <0.689 | | | 53% | <0.622 | | |
| 2,3',5,5'-Tetrachlorobiphenyl | 41464-42-0 | 6.26 | 5.983 | 61% | <0.650 | | | 61% | <0.711 | | | 61% | <0.689 | | | 61% | <0.622 | | |
| 2,3',5',6-Tetrachlorobiphenyl | 74338-23-1 | 5.785 | 5.48425 | 47% | <1.30 | | | 47% | <1.42 | | | 47% | <1.38 | | | 47% | <1.24 | | |
| 2,4,4',5-Tetrachlorobiphenyl | 32690-93-0 | 6.2 | 5.92 | 59% | <0.650 | | | 59% | <0.711 | | | 59% | <0.689 | | | 59% | <0.622 | | |
| 2,3',4',5'-Tetrachlorobiphenyl | 70362-48-0 | 6.13 | 5.8465 | 57% | <0.650 | | | 57% | <0.711 | | | 57% | <0.689 | | | 57% | <0.622 | | |

**Table 3-11
Sediment Bioaccumulation Test Porewater PCB Results---Dark Head Cove, 2020**

| Congener | CAS | Log Kow | Log KPE-D* | PPW02-A | | | | PPW02-B | | | | PPW02-C | | | | PPW02-D | | | |
|---|------------|---------|------------|------------|--------|----------------|----------|------------|--------|----------------|---------|------------|--------|----------------|---------|------------|--------|----------------|---------|
| | | | | % Retained | µg/g | µg/g corrected | µg/L | % Retained | µg/g | µg/g corrected | µg/L | % Retained | µg/g | µg/g corrected | µg/L | % Retained | µg/g | µg/g corrected | µg/L |
| 2,3,3',4,4',5'-Hexachlorobiphenyl | 68782-90-7 | 7.18 | 6.949 | 88% | <0.650 | | | 88% | <0.711 | | | 88% | <0.689 | | | 88% | <0.622 | | |
| 2,3,3',4,5,5'-Hexachlorobiphenyl | 39635-35-3 | 7.24 | 7.012 | 90% | <0.650 | | | 90% | <0.711 | | | 90% | <0.689 | | | 90% | <0.622 | | |
| 2,3,3',4,5',6-Hexachlorobiphenyl | 74472-43-8 | 7.08 | 6.844 | 85% | <0.650 | | | 85% | <0.711 | | | 85% | <0.689 | | | 85% | <0.622 | | |
| 2,3,3',4',5,5'-Hexachlorobiphenyl | 39635-34-2 | 7.24 | 7.012 | 90% | <0.650 | | | 90% | <0.711 | | | 90% | <0.689 | | | 90% | <0.622 | | |
| 2,3,3',4',5,6-Hexachlorobiphenyl | 74472-44-9 | 6.96 | 6.718 | 82% | 0.663 | 3.67 | 0.00070 | 82% | <1.42 | | | 82% | <1.38 | | | 82% | <1.24 | | |
| 2,3,3',5,5',6-Hexachlorobiphenyl | 74472-46-1 | 7.05 | 6.8125 | 85% | <0.650 | | | 85% | <0.711 | | | 85% | <0.689 | | | 85% | <0.622 | | |
| 2,3,4,4',5,6-Hexachlorobiphenyl | 41411-63-6 | 6.93 | 6.6865 | 81% | <0.650 | | | 81% | <0.711 | | | 81% | <0.689 | | | 81% | <0.622 | | |
| 2,3',4,4',5,5'-Hexachlorobiphenyl | 52663-72-6 | 7.27 | 7.0435 | 91% | <0.650 | | | 91% | <0.711 | | | 99% | <0.689 | | | 91% | <0.622 | | |
| 2,3',4,4',5',6-Hexachlorobiphenyl | 59291-65-5 | 7.11 | 6.8755 | 86% | <0.650 | | | 86% | <0.711 | | | 86% | <0.689 | | | 86% | <0.622 | | |
| 3,3',4,4',5,5'-Hexachlorobiphenyl | 32774-16-6 | 7.42 | 7.201 | 96% | <0.650 | | | 96% | <0.711 | | | 99% | <0.689 | | | 96% | <0.622 | | |
| 2,2',3,3',4,4',5'-Heptachlorobiphenyl | 35065-30-6 | 7.27 | 7.0435 | 91% | 1.32 | 14.8 | 0.00134 | 91% | 0.519 | 5.8 | 0.00053 | 99% | 0.868 | 86.8 | 0.00785 | 91% | 0.553 | 6.2 | 0.00056 |
| 2,2',3,3',4,4',6-Heptachlorobiphenyl | 52663-71-5 | 7.11 | 6.8755 | 86% | 0.658 | 4.82 | 0.00064 | 86% | 0.413 | 3.03 | 0.00040 | 86% | 0.366 | 2.68 | 0.00036 | 86% | 0.356 | 2.61 | 0.00035 |
| 2,2',3,3',4,5,5'-Heptachlorobiphenyl | 52663-74-8 | 7.33 | 7.1065 | 93% | 0.423 | 5.93 | 0.00046 | 93% | <0.711 | | | 99% | <0.689 | | | 93% | <0.622 | | |
| 2,2',3,3',4,5,6-Heptachlorobiphenyl | 68194-16-1 | 7.02 | 6.781 | 84% | <0.650 | | | 84% | <0.711 | | | 84% | <0.689 | | | 84% | <0.622 | | |
| 2,2',3,3',4,5,6'-Heptachlorobiphenyl | 38411-25-5 | 7.11 | 6.8755 | 86% | 1.51 | 11.07 | 0.00147 | 87% | 0.945 | 6.93 | 0.00092 | 86% | 1.09 | 7.99 | 0.00106 | 86% | 0.845 | 6.19 | 0.00083 |
| 2,2',3,3',4,6,6'-Heptachlorobiphenyl | 52663-65-7 | 6.76 | 6.508 | 76% | <0.650 | | | 76% | <0.711 | | | 76% | 0.391 | 1.63 | 0.00051 | 76% | <0.622 | | |
| 2,2',3,3',4,5,6'-Heptachlorobiphenyl | 52663-70-4 | 7.08 | 6.844 | 85% | 1.06 | 7.30 | 0.00104 | 85% | 0.66 | 4.54 | 0.00065 | 85% | 0.609 | 4.19 | 0.00060 | 85% | 0.759 | 5.22 | 0.00075 |
| 2,2',3,3',5,5',6-Heptachlorobiphenyl | 52663-67-9 | 7.14 | 6.907 | 87% | 0.459 | 3.60 | 0.00045 | 87% | 0.448 | 3.51 | 0.00044 | 87% | <0.689 | | | 87% | <0.622 | | |
| 2,2',3,3',5,6,6'-Heptachlorobiphenyl | 52663-64-6 | 6.73 | 6.4765 | 75% | 1.06 | 4.26 | 0.00142 | 75% | 0.639 | 2.57 | 0.00086 | 75% | 0.752 | 3.02 | 0.00101 | 75% | 0.733 | 2.95 | 0.00098 |
| 2,2',3,4,4',5,5'-Heptachlorobiphenyl | 35065-29-3 | 7.36 | 7.138 | 94% | 2.59 | 41 | 0.00302 | 94% | 0.969 | 16 | 0.00113 | 99% | 1.37 | 137 | 0.00997 | 94% | 1.1 | 18 | 0.00128 |
| 2,2',3,4,4',5,6-Heptachlorobiphenyl | 74472-47-2 | 7.11 | 6.8755 | 86% | <0.650 | | | 86% | <0.711 | | | 86% | <0.689 | | | 86% | <0.622 | | |
| 2,2',3,4,4',5,6'-Heptachlorobiphenyl | 60145-23-5 | 7.185 | 6.95425 | 89% | <1.30 | | | 89% | <1.42 | | | 89% | <1.38 | | | 89% | <1.24 | | |
| 2,2',3,4,4',5,6'-Heptachlorobiphenyl | 52663-69-1 | 7.2 | 6.97 | 89% | 1.14 | 10.38 | 0.00111 | 89% | 0.701 | 6.38 | 0.00068 | 89% | 0.694 | 6.32 | 0.00068 | 89% | 0.667 | 6.08 | 0.00065 |
| 2,2',3,4,4',6,6'-Heptachlorobiphenyl | 74472-48-3 | 6.85 | 6.6025 | 79% | <0.650 | | | 79% | <0.711 | | | 79% | <0.689 | | | 79% | <0.622 | | |
| 2,2',3,4,5,5',6-Heptachlorobiphenyl | 52712-05-7 | 7.11 | 6.8755 | 86% | <0.650 | | | 86% | <0.711 | | | 86% | <0.689 | | | 86% | <0.622 | | |
| 2,2',3,4,5,6,6'-Heptachlorobiphenyl | 74472-49-4 | 6.69 | 6.4345 | 74% | <0.650 | | | 74% | <0.711 | | | 74% | <0.689 | | | 74% | <0.622 | | |
| 2,2',3,4',5,5',6-Heptachlorobiphenyl | 52663-68-0 | 7.17 | 6.9385 | 88% | 2.25 | 19 | 0.00218 | 88% | 1.1 | 9 | 0.00107 | 88% | 1.19 | 10 | 0.00116 | 88% | 1.19 | 10 | 0.00116 |
| 2,2',3,4',5,6,6'-Heptachlorobiphenyl | 74487-85-7 | 6.82 | 6.571 | 78% | <0.650 | | | 78% | <0.711 | | | 78% | <0.689 | | | 78% | <0.622 | | |
| 2,3,3',4,4',5,5'-Heptachlorobiphenyl | 39635-31-9 | 7.71 | 7.5055 | 104% | <0.650 | | | 104% | <0.711 | | | 99% | <0.689 | | | 104% | <0.622 | | |
| 2,3,3',4,4',5,6-Heptachlorobiphenyl | 41411-64-7 | 7.46 | 7.243 | 97% | 0.336 | 10.23 | 0.00058 | 97% | <0.711 | | | 99% | <0.689 | | | 97% | <0.622 | | |
| 2,3,3',4,4',5,6'-Heptachlorobiphenyl | 74472-50-7 | 7.55 | 7.3375 | 99% | <0.650 | | | 99% | <0.711 | | | 99% | <0.689 | | | 99% | <0.622 | | |
| 2,3,3',4,5,5',6-Heptachlorobiphenyl | 74472-51-8 | 7.52 | 7.306 | 98% | <0.650 | | | 98% | <0.711 | | | 99% | <0.689 | | | 98% | <0.622 | | |
| 2,3,3',4,5,5',6-Heptachlorobiphenyl | 69782-91-8 | 7.52 | 7.306 | 98% | <0.650 | | | 98% | <0.711 | | | 99% | <0.689 | | | 98% | <0.622 | | |
| 2,2',3,3',4,4',5,5'-Octachlorobiphenyl | 35694-08-7 | 7.8 | 7.6 | 107% | 0.598 | -8.83 | -0.00022 | 99% | 0.48 | 48.00 | 0.00121 | 99% | <0.689 | | | 107% | <0.622 | | |
| 2,2',3,3',4,4',5,6-Octachlorobiphenyl | 52663-78-2 | 7.56 | 7.348 | 100% | 0.345 | 105.54 | 0.00474 | 100% | <0.711 | | | 99% | <0.689 | | | 100% | <0.622 | | |
| 2,2',3,3',4,4',5,6'-Octachlorobiphenyl | 42740-50-1 | 7.65 | 7.4425 | 102% | 0.515 | -22.04 | -0.00080 | 102% | <0.711 | | | 99% | <0.689 | | | 102% | <0.622 | | |
| 2,2',3,3',4,4',6,6'-Octachlorobiphenyl | 33091-17-7 | 7.3 | 7.075 | 92% | <0.650 | | | 92% | <0.711 | | | 99% | <0.689 | | | 92% | <0.622 | | |
| 2,2',3,3',4,5,5',6-Octachlorobiphenyl | 68194-17-2 | 7.62 | 7.411 | 101% | <0.650 | | | 101% | <0.711 | | | 99% | <0.689 | | | 101% | <0.622 | | |
| 2,2',3,3',4,5,5',6'-Octachlorobiphenyl | 52663-75-9 | 7.62 | 7.411 | 101% | <0.650 | | | 101% | <0.711 | | | 99% | <0.689 | | | 101% | <0.622 | | |
| 2,2',3,3',4,5',6,6'-Octachlorobiphenyl | 40186-71-8 | 7.27 | 7.0435 | 91% | 0.871 | 9.8 | 0.00088 | 91% | 0.519 | 5.8 | 0.00053 | 99% | 0.5 | 50.0 | 0.00452 | 91% | 0.35 | 3.9 | 0.00036 |
| 2,2',3,3',5,5',6,6'-Octachlorobiphenyl | 2136-99-4 | 7.24 | 7.012 | 90% | <0.650 | | | 90% | <0.711 | | | 90% | <0.689 | | | 90% | <0.622 | | |
| 2,2',3,4,4',5,5',6-Octachlorobiphenyl | 52663-76-0 | 7.65 | 7.4425 | 102% | 0.464 | -19.86 | -0.00072 | 102% | <0.711 | | | 99% | <0.689 | | | 102% | <0.622 | | |
| 2,2',3,4,4',5,6,6'-Octachlorobiphenyl | 74472-52-9 | 7.25 | 7.0225 | 91% | <1.30 | | | 91% | <1.42 | | | 91% | <1.38 | | | 91% | <1.24 | | |
| 2,3,3',4,4',5,5',6-Octachlorobiphenyl | 74472-53-0 | 8 | 7.81 | 113% | <0.650 | | | 99% | <0.711 | | | 99% | <0.689 | | | 113% | <0.622 | | |
| 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl | 40186-72-9 | 8.09 | 7.9045 | 115% | <0.650 | | | 99% | <0.711 | | | 99% | <0.689 | | | 115% | <0.622 | | |
| 2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl | 52663-79-3 | 7.74 | 7.537 | 105% | <0.650 | | | 99% | <0.711 | | | 99% | <0.689 | | | 105% | <0.622 | | |
| 2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl | 52663-77-1 | 7.71 | 7.5055 | 104% | <0.650 | | | 104% | <0.711 | | | 99% | <0.689 | | | 104% | <0.622 | | |
| 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl | 2051-24-3 | 8.18 | 7.999 | 118% | <0.650 | | | 99% | <0.711 | | | 99% | <0.689 | | | 118% | <0.622 | | |

Kow = octanol water partition coefficient
KPE-D = polyethylene water partition coefficient
µg/g = microgram per gram
µg/L = microgram per liter

Table 3-11
Sediment Bioaccumulation Test Porewater PCB Results---Dark Head Cove, 2020

| Congener | CAS | Log Kow | Log KPE-D* | PPW03-A | | | | PPW03-B | | | | PPW03-C | | | | PPW03-D | | | |
|--------------------------------|------------|---------|------------|------------|--------|----------------|---------|------------|--------|----------------|---------|------------|--------|----------------|---------|------------|--------|----------------|---------|
| | | | | % Retained | µg/g | µg/g corrected | µg/L | % Retained | µg/g | µg/g corrected | µg/L | % Retained | µg/g | µg/g corrected | µg/L | % Retained | µg/g | µg/g corrected | µg/L |
| 2-Chlorobiphenyl | 2051-60-7 | 4.46 | 4.093 | 8% | <0.709 | | | 8% | <0.679 | | | 8% | <0.682 | | | 8% | <0.651 | | |
| 3-Chlorobiphenyl | 2051-61-8 | 4.69 | 4.3345 | 15% | <0.709 | | | 15% | <0.679 | | | 15% | <0.682 | | | 15% | <0.651 | | |
| 4-Chlorobiphenyl | 2051-62-9 | 4.69 | 4.3345 | 15% | <0.709 | | | 15% | <0.679 | | | 15% | <0.682 | | | 15% | <0.651 | | |
| 3,3'-Dichlorobiphenyl | 2050-67-1 | 5.28 | 4.954 | 32% | <0.709 | | | 32% | <0.679 | | | 32% | <0.682 | | | 32% | <0.651 | | |
| 3,4-Dichlorobiphenyl | 2974-92-7 | 5.22 | 4.891 | 30% | <0.709 | | | 30% | <0.679 | | | 30% | <0.682 | | | 30% | <0.651 | | |
| 3,4'-Dichlorobiphenyl | 2974-90-5 | 5.29 | 4.9645 | 33% | <0.709 | | | 33% | <0.679 | | | 33% | <0.682 | | | 33% | <0.651 | | |
| 3,5-Dichlorobiphenyl | 34883-41-5 | 5.28 | 4.954 | 32% | <0.709 | | | 32% | <0.679 | | | 32% | <0.682 | | | 32% | <0.651 | | |
| 4,4'-Dichlorobiphenyl | 2050-68-2 | 5.3 | 4.975 | 33% | <0.709 | | | 33% | <0.679 | | | 33% | <0.682 | | | 33% | <0.651 | | |
| 2,2'-Dichlorobiphenyl | 13029-08-8 | 4.745 | 4.39225 | 16% | <1.42 | | | 16% | <1.36 | | | 16% | <1.36 | | | 16% | <1.30 | | |
| 2,3-Dichlorobiphenyl | 16605-91-7 | 4.97 | 4.6285 | 23% | <0.709 | | | 23% | <0.679 | | | 23% | <0.682 | | | 23% | <0.651 | | |
| 2,3'-Dichlorobiphenyl | 25569-80-6 | 5.06 | 4.723 | 26% | <0.709 | | | 26% | <0.679 | | | 26% | <0.682 | | | 26% | <0.651 | | |
| 2,4-Dichlorobiphenyl | 33284-50-3 | 5.07 | 4.7335 | 26% | <0.709 | | | 26% | <0.679 | | | 26% | <0.682 | | | 26% | <0.651 | | |
| 2,4'-Dichlorobiphenyl | 34883-43-7 | 5.07 | 4.7335 | 26% | <0.709 | | | 26% | <0.679 | | | 26% | <0.682 | | | 26% | <0.651 | | |
| 2,5-Dichlorobiphenyl | 34883-39-1 | 5.06 | 4.723 | 26% | <0.709 | | | 26% | <0.679 | | | 26% | <0.682 | | | 26% | <0.651 | | |
| 2,2',3-Trichlorobiphenyl | 38444-78-9 | 5.16 | 4.828 | 29% | <0.709 | | | 29% | <0.679 | | | 29% | <0.682 | | | 29% | <0.651 | | |
| 2,2',4-Trichlorobiphenyl | 37680-66-3 | 5.25 | 4.9225 | 31% | <0.709 | | | 31% | <0.679 | | | 31% | <0.682 | | | 31% | <0.651 | | |
| 2,2',5-Trichlorobiphenyl | 37680-65-2 | 5.24 | 4.912 | 31% | <0.709 | | | 31% | <0.679 | | | 31% | <0.682 | | | 31% | <0.651 | | |
| 2,2',6-Trichlorobiphenyl | 38444-73-4 | 5.02 | 4.681 | 25% | <0.709 | | | 25% | <0.679 | | | 25% | <0.682 | | | 25% | <0.651 | | |
| 2,3,3'-Trichlorobiphenyl | 38444-84-7 | 5.54 | 5.227 | 40% | <1.42 | | | 40% | <1.36 | | | 40% | <1.36 | | | 40% | <1.30 | | |
| 2,3,4'-Trichlorobiphenyl | 38444-85-8 | 5.58 | 5.269 | 41% | <0.709 | | | 41% | <0.679 | | | 41% | <0.682 | | | 41% | <0.651 | | |
| 2,3,5-Trichlorobiphenyl | 55720-44-0 | 5.57 | 5.2585 | 41% | <0.709 | | | 41% | <0.679 | | | 41% | <0.682 | | | 41% | <0.651 | | |
| 2,3,6-Trichlorobiphenyl | 55702-45-9 | 5.35 | 5.0275 | 34% | <0.709 | | | 34% | <0.679 | | | 34% | <0.682 | | | 34% | <0.651 | | |
| 2,3',4-Trichlorobiphenyl | 55712-37-3 | 5.67 | 5.3635 | 44% | <0.709 | | | 44% | <0.679 | | | 44% | <0.682 | | | 44% | <0.651 | | |
| 2,3',5-Trichlorobiphenyl | 38444-81-4 | 5.66 | 5.353 | 43% | <0.709 | | | 43% | <0.679 | | | 43% | <0.682 | | | 43% | <0.651 | | |
| 2,3',6-Trichlorobiphenyl | 38444-76-7 | 5.44 | 5.122 | 37% | <0.709 | | | 37% | <0.679 | | | 37% | <0.682 | | | 37% | <0.651 | | |
| 2,4,4'-Trichlorobiphenyl | 7012-37-5 | 5.67 | 5.3635 | 44% | <0.709 | | | 44% | <0.679 | | | 44% | <0.682 | | | 44% | <0.651 | | |
| 2,4,5-Trichlorobiphenyl | 15862-07-4 | 5.6 | 5.29 | 42% | <0.709 | | | 42% | <0.679 | | | 42% | <0.682 | | | 42% | <0.651 | | |
| 2,4,6-Trichlorobiphenyl | 35693-92-6 | 5.44 | 5.122 | 37% | <0.709 | | | 37% | <0.679 | | | 37% | <0.682 | | | 37% | <0.651 | | |
| 2,4',5-Trichlorobiphenyl | 16606-02-3 | 5.67 | 5.3635 | 44% | <0.709 | | | 44% | <0.679 | | | 44% | <0.682 | | | 44% | <0.651 | | |
| 2,4',6-Trichlorobiphenyl | 38444-77-8 | 5.44 | 5.122 | 37% | <0.709 | | | 37% | <0.679 | | | 37% | <0.682 | | | 37% | <0.651 | | |
| 2,3',4'-Trichlorobiphenyl | 38444-86-9 | 5.6 | 5.29 | 42% | <0.709 | | | 42% | <0.679 | | | 42% | <0.682 | | | 42% | <0.651 | | |
| 2,3',5'-Trichlorobiphenyl | 37680-68-5 | 5.66 | 5.353 | 43% | <0.709 | | | 43% | <0.679 | | | 43% | <0.682 | | | 43% | <0.651 | | |
| 3,3',4-Trichlorobiphenyl | 37680-69-6 | 5.82 | 5.521 | 48% | <0.709 | | | 48% | <0.679 | | | 48% | <0.682 | | | 48% | <0.651 | | |
| 3,3',5-Trichlorobiphenyl | 38444-87-0 | 5.88 | 5.584 | 50% | <0.709 | | | 50% | <0.679 | | | 50% | <0.682 | | | 50% | <0.651 | | |
| 3,4,4'-Trichlorobiphenyl | 38444-90-5 | 5.83 | 5.5315 | 48% | <0.709 | | | 48% | <0.679 | | | 48% | <0.682 | | | 48% | <0.651 | | |
| 3,4,5-Trichlorobiphenyl | 53555-66-1 | 5.76 | 5.458 | 46% | <0.709 | | | 46% | <0.679 | | | 46% | <0.682 | | | 46% | <0.651 | | |
| 3,4',5-Trichlorobiphenyl | 38444-88-1 | 5.89 | 5.5945 | 50% | <0.709 | | | 50% | <0.679 | | | 50% | <0.682 | | | 50% | <0.651 | | |
| 2,2',3,3'-Tetrachlorobiphenyl | 38444-93-8 | 5.66 | 5.353 | 43% | <0.709 | | | 43% | <0.679 | | | 43% | <0.682 | | | 43% | <0.651 | | |
| 2,2',3,4-Tetrachlorobiphenyl | 52663-59-9 | 5.69 | 5.3845 | 44% | <0.709 | | | 44% | <0.679 | | | 44% | <0.682 | | | 44% | <0.651 | | |
| 2,2',3,4'-Tetrachlorobiphenyl | 36559-22-5 | 5.76 | 5.458 | 46% | <0.709 | | | 46% | <0.679 | | | 46% | <0.682 | | | 46% | <0.651 | | |
| 2,2',3,5-Tetrachlorobiphenyl | 70362-46-8 | 5.75 | 5.4475 | 46% | <0.709 | | | 46% | <0.679 | | | 46% | <0.682 | | | 46% | <0.651 | | |
| 2,2',3,5'-Tetrachlorobiphenyl | 41464-39-5 | 5.75 | 5.4475 | 46% | <0.709 | | | 46% | <0.679 | | | 46% | <0.682 | | | 46% | <0.651 | | |
| 2,2',3,6-Tetrachlorobiphenyl | 70362-45-7 | 5.53 | 5.2165 | 40% | <0.709 | | | 40% | <0.679 | | | 40% | <0.682 | | | 40% | <0.651 | | |
| 2,2',4,4'-Tetrachlorobiphenyl | 2437-79-8 | 5.85 | 5.5525 | 49% | 7.17 | 14.08 | 0.03945 | 49% | 6.86 | 13.47 | 0.03775 | 49% | 7.71 | 15.14 | 0.04243 | 49% | 5.52 | 10.84 | 0.03037 |
| 2,2',4,5-Tetrachlorobiphenyl | 70362-47-9 | 5.78 | 5.479 | 47% | <0.709 | | | 47% | <0.679 | | | 47% | <0.682 | | | 47% | <0.651 | | |
| 2,2',4,5'-Tetrachlorobiphenyl | 41464-40-8 | 5.85 | 5.5525 | 49% | 3.76 | 7.38 | 0.02069 | 49% | 3.97 | 7.80 | 0.02185 | 49% | 4.35 | 8.54 | 0.02394 | 49% | 3.13 | 6.15 | 0.01722 |
| 2,2',4,6-Tetrachlorobiphenyl | 62796-65-0 | 5.63 | 5.3215 | 43% | <0.709 | | | 43% | <0.679 | | | 43% | <0.682 | | | 43% | <0.651 | | |
| 2,2',4,6'-Tetrachlorobiphenyl | 68194-04-7 | 5.63 | 5.3215 | 43% | 4.36 | 7.59 | 0.03621 | 43% | 4.08 | 7.10 | 0.03388 | 43% | 4.8 | 8.36 | 0.03986 | 43% | 3.41 | 5.94 | 0.02832 |
| 2,2',5,5'-Tetrachlorobiphenyl | 35693-99-3 | 5.84 | 5.542 | 49% | 1.33 | 2.60 | 0.00745 | 49% | 1.22 | 2.38 | 0.00684 | 49% | 1.52 | 2.97 | 0.00852 | 49% | 1.17 | 2.28 | 0.00656 |
| 2,2',5,6-Tetrachlorobiphenyl | 41464-41-9 | 5.62 | 5.311 | 42% | 2.49 | 4.31 | 0.02108 | 42% | 2.31 | 4.00 | 0.01955 | 42% | 2.69 | 4.66 | 0.02277 | 42% | 2.06 | 3.57 | 0.01744 |
| 2,2',6,6'-Tetrachlorobiphenyl | 15968-05-5 | 5.21 | 4.8805 | 30% | 0.734 | 1.05 | 0.01383 | 30% | 0.733 | 1.05 | 0.01382 | 30% | 0.906 | 1.30 | 0.01708 | 30% | 0.605 | 0.87 | 0.01140 |
| 2,3,3',4-Tetrachlorobiphenyl | 74338-24-2 | 6.11 | 5.8255 | 57% | <0.709 | | | 57% | <0.679 | | | 57% | <0.682 | | | 57% | <0.651 | | |
| 2,3,3',4'-Tetrachlorobiphenyl | 41464-43-1 | 6.11 | 5.8255 | 57% | <0.709 | | | 57% | <0.679 | | | 57% | <0.682 | | | 57% | <0.651 | | |
| 2,3,3',5-Tetrachlorobiphenyl | 70424-67-8 | 6.17 | 5.8885 | 59% | <0.709 | | | 59% | <0.679 | | | 59% | <0.682 | | | 59% | <0.651 | | |
| 2,3,3',6-Tetrachlorobiphenyl | 74472-33-6 | 5.95 | 5.6575 | 52% | <0.709 | | | 52% | <0.679 | | | 52% | <0.682 | | | 52% | <0.651 | | |
| 2,3,4,4'-Tetrachlorobiphenyl | 33025-41-1 | 6.11 | 5.8255 | 57% | <0.709 | | | 57% | <0.679 | | | 57% | <0.682 | | | 57% | <0.651 | | |
| 2,3,4,5-Tetrachlorobiphenyl | 33284-53-6 | 6.04 | 5.752 | 55% | <0.709 | | | 55% | <0.679 | | | 55% | <0.682 | | | 55% | <0.651 | | |
| 2,3,4',5-Tetrachlorobiphenyl | 74472-34-7 | 6.17 | 5.8885 | 59% | <0.709 | | | 59% | <0.679 | | | 59% | <0.682 | | | 59% | <0.651 | | |
| 2,3,5,6-Tetrachlorobiphenyl | 33284-54-7 | 5.933 | 5.64 | 52% | <2.13 | | | 52% | <2.04 | | | 52% | <2.05 | | | 52% | <1.95 | | |
| 2,3',4,4'-Tetrachlorobiphenyl | 32598-10-0 | 6.2 | 5.92 | 59% | <0.709 | | | 59% | <0.679 | | | 59% | <0.682 | | | 59% | <0.651 | | |
| 2,3',4,5-Tetrachlorobiphenyl | 73575-53-8 | 6.185 | 5.90425 | 59% | <1.42 | | | 59% | <1.36 | | | 59% | <1.36 | | | 59% | <1.30 | | |
| 2,3',4,5'-Tetrachlorobiphenyl | 73575-52-7 | 6.105 | 5.82025 | 57% | <1.42 | | | 57% | <1.36 | | | 57% | <1.36 | | | 57% | <1.30 | | |
| 2,3',4,6-Tetrachlorobiphenyl | 60233-24-1 | 6.04 | 5.752 | 55% | <0.709 | | | 55% | <0.679 | | | 55% | <0.682 | | | 55% | <0.651 | | |
| 2,3',4',5-Tetrachlorobiphenyl | 32598-11-1 | 6.2 | 5.92 | 59% | <0.709 | | | 59% | <0.679 | | | 59% | <0.682 | | | 59% | <0.651 | | |
| 2,3',4',6-Tetrachlorobiphenyl | 41464-46-4 | 5.98 | 5.689 | 53% | 0.417 | 0.89 | 0.00181 | 53% | 0.356 | 0.76 | 0.00155 | 53% | 0.439 | 0.93 | 0.00191 | 53% | <0.651 | | |
| 2,3',5,5'-Tetrachlorobiphenyl | 41464-42-0 | 6.26 | 5.983 | 61% | <0.709 | | | 61% | <0.679 | | | 61% | <0.682 | | | 61% | <0.651 | | |
| 2,3',5,6-Tetrachlorobiphenyl | 74338-23-1 | 5.785 | 5.48425 | 47% | <1.42 | | | 47% | <1.36 | | | 47% | <1.36 | | | 47% | <1.30 | | |
| 2,4,4',5-Tetrachlorobiphenyl | 32690-93-0 | 6.2 | 5.92 | 59% | <0.709 | | | 59% | <0.679 | | | 59% | <0.682 | | | 59% | <0.651 | | |
| 2,3',4',5'-Tetrachlorobiphenyl | 70362-48-0 | 6.13 | 5.8465 | 57% | <0.709 | | | 57% | <0.679 | | | 57% | <0.682 | | | 57% | <0.651 | | |

Table 3-11
Sediment Bioaccumulation Test Porewater PCB Results---Dark Head Cove, 2020

| Congener | CAS | Log Kow | Log KPE-D* | PPW03-A | | | | PPW03-B | | | | PPW03-C | | | | PPW03-D | | | |
|---|------------|---------|------------|------------|--------|----------------|----------|------------|--------|----------------|---------|------------|--------|----------------|---------|------------|--------|----------------|---------|
| | | | | % Retained | µg/g | µg/g corrected | µg/L | % Retained | µg/g | µg/g corrected | µg/L | % Retained | µg/g | µg/g corrected | µg/L | % Retained | µg/g | µg/g corrected | µg/L |
| 2,3,3',4,4',5'-Hexachlorobiphenyl | 68782-90-7 | 7.18 | 6.949 | 88% | <0.709 | | | 88% | <0.679 | | | 88% | <0.682 | | | 88% | <0.651 | | |
| 2,3,3',4,5,5'-Hexachlorobiphenyl | 39635-35-3 | 7.24 | 7.012 | 90% | <0.709 | | | 90% | <0.679 | | | 90% | <0.682 | | | 90% | <0.651 | | |
| 2,3,3',4,5',6-Hexachlorobiphenyl | 74472-43-8 | 7.08 | 6.844 | 85% | <0.709 | | | 85% | <0.679 | | | 85% | <0.682 | | | 85% | <0.651 | | |
| 2,3,3',4',5,5'-Hexachlorobiphenyl | 39635-34-2 | 7.24 | 7.012 | 90% | <0.709 | | | 90% | <0.679 | | | 90% | <0.682 | | | 90% | <0.651 | | |
| 2,3,3',4',5,6-Hexachlorobiphenyl | 74472-44-9 | 6.96 | 6.718 | 82% | 1.43 | 7.91 | 0.00151 | 82% | 1.55 | 8.57 | 0.00164 | 82% | 1.39 | 7.69 | 0.00147 | 82% | 0.898 | 4.97 | 0.00095 |
| 2,3,3',5,5',6-Hexachlorobiphenyl | 74472-46-1 | 7.05 | 6.8125 | 85% | <0.709 | | | 85% | <0.679 | | | 85% | <0.682 | | | 85% | <0.651 | | |
| 2,3,4,4',5,6-Hexachlorobiphenyl | 41411-63-6 | 6.93 | 6.6865 | 81% | <0.709 | | | 81% | <0.679 | | | 81% | <0.682 | | | 81% | <0.651 | | |
| 2,3',4,4',5,5'-Hexachlorobiphenyl | 52663-72-6 | 7.27 | 7.0435 | 91% | <0.709 | | | 91% | <0.679 | | | 91% | <0.682 | | | 91% | <0.651 | | |
| 2,3',4,4',5',6-Hexachlorobiphenyl | 59291-65-5 | 7.11 | 6.8755 | 86% | <0.709 | | | 86% | <0.679 | | | 86% | <0.682 | | | 86% | <0.651 | | |
| 3,3',4,4',5,5'-Hexachlorobiphenyl | 32774-16-6 | 7.42 | 7.201 | 96% | <0.709 | | | 96% | <0.679 | | | 96% | <0.682 | | | 96% | <0.651 | | |
| 2,2',3,3',4,4',5'-Heptachlorobiphenyl | 35065-30-6 | 7.27 | 7.0435 | 91% | 2.68 | 30.1 | 0.00272 | 91% | 3.68 | 41.3 | 0.00374 | 91% | 3.21 | 36.0 | 0.00326 | 91% | 1.88 | 21.1 | 0.00191 |
| 2,2',3,3',4,4',6-Heptachlorobiphenyl | 52663-71-5 | 7.11 | 6.8755 | 86% | 1.36 | 9.97 | 0.00133 | 86% | 1.66 | 12.17 | 0.00162 | 86% | 1.37 | 10.04 | 0.00134 | 86% | 0.834 | 6.11 | 0.00081 |
| 2,2',3,3',4,5,5'-Heptachlorobiphenyl | 52663-74-8 | 7.33 | 7.1065 | 93% | 0.612 | 8.58 | 0.00067 | 93% | 0.862 | 12.09 | 0.00095 | 93% | 0.764 | 10.71 | 0.00084 | 93% | 0.435 | 6.10 | 0.00048 |
| 2,2',3,3',4,5,6-Heptachlorobiphenyl | 68194-16-1 | 7.02 | 6.781 | 84% | <0.709 | | | 84% | <0.679 | | | 84% | <0.682 | | | 84% | <0.651 | | |
| 2,2',3,3',4,5,6'-Heptachlorobiphenyl | 38411-25-5 | 7.11 | 6.8755 | 86% | 3.77 | 27.63 | 0.00368 | 86% | 4.78 | 35.04 | 0.00467 | 86% | 3.85 | 28.22 | 0.00376 | 86% | 2.6 | 19.06 | 0.00254 |
| 2,2',3,3',4,6,6'-Heptachlorobiphenyl | 52663-65-7 | 6.76 | 6.508 | 76% | 1.04 | 4.33 | 0.00135 | 76% | 1.39 | 5.79 | 0.00180 | 76% | 0.96 | 4.00 | 0.00124 | 76% | 0.691 | 2.88 | 0.00089 |
| 2,2',3,3',4,5,6'-Heptachlorobiphenyl | 52663-70-4 | 7.08 | 6.844 | 85% | 2.65 | 18.24 | 0.00261 | 85% | 3.68 | 25.33 | 0.00363 | 85% | 2.84 | 19.55 | 0.00280 | 85% | 1.9 | 13.08 | 0.00187 |
| 2,2',3,3',5,5',6-Heptachlorobiphenyl | 52663-67-9 | 7.14 | 6.907 | 87% | 1.15 | 9.02 | 0.00112 | 87% | 1.51 | 11.84 | 0.00147 | 87% | 1.3 | 10.19 | 0.00126 | 87% | 0.864 | 6.77 | 0.00084 |
| 2,2',3,3',5,6,6'-Heptachlorobiphenyl | 52663-64-6 | 6.73 | 6.4765 | 75% | 2.6 | 10.45 | 0.00349 | 75% | 3.52 | 14.14 | 0.00472 | 75% | 2.92 | 11.73 | 0.00392 | 75% | 1.94 | 7.80 | 0.00260 |
| 2,2',3,4,4',5,5'-Heptachlorobiphenyl | 35065-29-3 | 7.36 | 7.138 | 94% | 5.2 | 83 | 0.00606 | 94% | 6.81 | 109 | 0.00794 | 94% | 5.57 | 89 | 0.00649 | 94% | 3.76 | 60 | 0.00438 |
| 2,2',3,4,4',5,6-Heptachlorobiphenyl | 74472-47-2 | 7.11 | 6.8755 | 86% | <0.709 | | | 86% | <0.679 | | | 86% | <0.682 | | | 86% | <0.651 | | |
| 2,2',3,4,4',5,6'-Heptachlorobiphenyl | 60145-23-5 | 7.185 | 6.95425 | 89% | <1.42 | | | 89% | <1.36 | | | 89% | <1.36 | | | 89% | <1.30 | | |
| 2,2',3,4,4',5,6'-Heptachlorobiphenyl | 52663-69-1 | 7.2 | 6.97 | 89% | 2.67 | 24.32 | 0.00261 | 89% | 3.24 | 29.51 | 0.00316 | 89% | 2.7 | 24.59 | 0.00264 | 89% | 1.79 | 16.30 | 0.00175 |
| 2,2',3,4,4',6,6'-Heptachlorobiphenyl | 74472-48-3 | 6.85 | 6.6025 | 79% | <0.709 | | | 79% | <0.679 | | | 79% | <0.682 | | | 79% | <0.651 | | |
| 2,2',3,4,5,5',6-Heptachlorobiphenyl | 52712-05-7 | 7.11 | 6.8755 | 86% | 0.448 | 3.28 | 0.00044 | 86% | 0.483 | 3.54 | 0.00047 | 86% | 0.482 | 3.53 | 0.00047 | 86% | 0.42 | 3.08 | 0.00041 |
| 2,2',3,4,5,6,6'-Heptachlorobiphenyl | 74472-49-4 | 6.69 | 6.4345 | 74% | <0.709 | | | 74% | <0.679 | | | 74% | <0.682 | | | 74% | <0.651 | | |
| 2,2',3,4',5,5',6-Heptachlorobiphenyl | 52663-68-0 | 7.17 | 6.9385 | 88% | 5.45 | 46 | 0.00529 | 88% | 7.44 | 63 | 0.00722 | 88% | 5.47 | 46 | 0.00531 | 88% | 3.54 | 30 | 0.00344 |
| 2,2',3,4',5,6,6'-Heptachlorobiphenyl | 74487-85-7 | 6.82 | 6.571 | 78% | <0.709 | | | 78% | <0.679 | | | 78% | <0.682 | | | 78% | <0.651 | | |
| 2,3,3',4,4',5,5'-Heptachlorobiphenyl | 39635-31-9 | 7.71 | 7.5055 | 104% | <0.709 | | | 99% | <0.679 | | | 99% | <0.682 | | | 99% | <0.651 | | |
| 2,3,3',4,4',5,6-Heptachlorobiphenyl | 41411-64-7 | 7.46 | 7.243 | 97% | 0.587 | 17.86 | 0.00102 | 97% | 0.694 | 21.12 | 0.00121 | 97% | 0.518 | 15.76 | 0.00090 | 97% | 0.328 | 9.98 | 0.00057 |
| 2,3,3',4,4',5,6'-Heptachlorobiphenyl | 74472-50-7 | 7.55 | 7.3375 | 99% | <0.709 | | | 99% | <0.679 | | | 99% | <0.682 | | | 99% | <0.651 | | |
| 2,3,3',4,5,5',6-Heptachlorobiphenyl | 74472-51-8 | 7.52 | 7.306 | 98% | <0.709 | | | 98% | <0.679 | | | 99% | <0.682 | | | 98% | <0.651 | | |
| 2,3,3',4,5,5',6-Heptachlorobiphenyl | 69782-91-8 | 7.52 | 7.306 | 98% | <0.709 | | | 98% | 0.4 | 26.48 | 0.00131 | 99% | <0.682 | | | 98% | <0.651 | | |
| 2,2',3,3',4,4',5,5'-Octachlorobiphenyl | 35694-08-7 | 7.8 | 7.6 | 107% | 1.09 | -16.09 | -0.00040 | 99% | 1.61 | 161.00 | 0.00404 | 99% | 1.36 | 136.00 | 0.00342 | 99% | 0.716 | 71.60 | 0.00180 |
| 2,2',3,3',4,4',5,6-Octachlorobiphenyl | 52663-78-2 | 7.56 | 7.348 | 100% | 0.693 | 212.00 | 0.00951 | 99% | 0.857 | 85.70 | 0.00385 | 99% | 0.712 | 71.20 | 0.00320 | 100% | 0.41 | 125.43 | 0.00563 |
| 2,2',3,3',4,4',5,6'-Octachlorobiphenyl | 42740-50-1 | 7.65 | 7.4425 | 102% | 1.04 | -44.52 | -0.00161 | 99% | 1.33 | 133.00 | 0.00480 | 99% | 0.918 | 91.80 | 0.00331 | 99% | 0.595 | 59.50 | 0.00215 |
| 2,2',3,3',4,4',6,6'-Octachlorobiphenyl | 33091-17-7 | 7.3 | 7.075 | 92% | <0.709 | | | 92% | <0.679 | | | 92% | <0.682 | | | 92% | <0.651 | | |
| 2,2',3,3',4,5,5',6-Octachlorobiphenyl | 68194-17-2 | 7.62 | 7.411 | 101% | <0.709 | | | 99% | <0.679 | | | 99% | <0.682 | | | 99% | <0.651 | | |
| 2,2',3,3',4,5,5',6'-Octachlorobiphenyl | 52663-75-9 | 7.62 | 7.411 | 101% | <0.709 | | | 99% | 0.394 | 39.40 | 0.00153 | 99% | <0.682 | | | 99% | <0.651 | | |
| 2,2',3,3',4,5',6,6'-Octachlorobiphenyl | 40186-71-8 | 7.27 | 7.0435 | 91% | 1.61 | 18.1 | 0.00164 | 91% | 2.05 | 23.0 | 0.00208 | 91% | 1.76 | 19.8 | 0.00179 | 91% | 1.03 | 11.6 | 0.00105 |
| 2,2',3,3',5,5',6,6'-Octachlorobiphenyl | 2136-99-4 | 7.24 | 7.012 | 90% | 0.55 | 5.61 | 0.00055 | 90% | 0.646 | 6.59 | 0.00064 | 90% | 0.608 | 6.21 | 0.00060 | 90% | <0.651 | | |
| 2,2',3,4,4',5,5',6-Octachlorobiphenyl | 52663-76-0 | 7.65 | 7.4425 | 102% | 0.77 | -32.96 | -0.00119 | 99% | 0.927 | 92.70 | 0.00335 | 99% | 0.77 | 77.00 | 0.00278 | 99% | 0.433 | 43.30 | 0.00156 |
| 2,2',3,4,4',5,6,6'-Octachlorobiphenyl | 74472-52-9 | 7.25 | 7.0225 | 91% | <1.42 | | | 91% | 0.758 | 7.98 | 0.00076 | 91% | <1.36 | | | 91% | <1.30 | | |
| 2,3,3',4,4',5,5',6-Octachlorobiphenyl | 74472-53-0 | 8 | 7.81 | 99% | <0.709 | | | 99% | <0.679 | | | 99% | <0.682 | | | 99% | <0.651 | | |
| 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl | 40186-72-9 | 8.09 | 7.9045 | 99% | <0.709 | | | 99% | 0.551 | 55.10 | 0.00069 | 99% | <0.682 | | | 99% | <0.651 | | |
| 2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl | 52663-79-3 | 7.74 | 7.537 | 105% | <0.709 | | | 99% | <0.679 | | | 99% | <0.682 | | | 99% | <0.651 | | |
| 2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl | 52663-77-1 | 7.71 | 7.5055 | 104% | <0.709 | | | 99% | <0.679 | | | 99% | <0.682 | | | 99% | <0.651 | | |
| 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl | 2051-24-3 | 8.18 | 7.999 | 99% | <0.709 | | | 99% | <0.679 | | | 99% | <0.682 | | | 99% | <0.651 | | |

Kow = octanol water partition coefficient
KPE-D = polyethylene water partition coefficient
µg/g = microgram per gram
µg/L = microgram per liter

Table 3-11
Sediment Bioaccumulation Test Porewater PCB Results---Dark Head Cove, 2020

| Congener | CAS | Log Kow | Log KPE-D* | PPW04-A | | | | PPW04-B | | | | PPW04-C | | | | PPW04-D | | | |
|---|------------|---------|------------|------------|--------|----------------|---------|------------|--------|----------------|----------|------------|--------|----------------|---------|------------|--------|----------------|---------|
| | | | | % Retained | µg/g | µg/g corrected | µg/L | % Retained | µg/g | µg/g corrected | µg/L | % Retained | µg/g | µg/g corrected | µg/L | % Retained | µg/g | µg/g corrected | µg/L |
| 2,3,3',4,4',5'-Hexachlorobiphenyl | 68782-90-7 | 7.18 | 6.949 | 88% | <0.694 | | | 88% | <0.662 | | | 88% | <0.741 | | | 99% | <0.690 | | |
| 2,3,3',4,5,5'-Hexachlorobiphenyl | 39635-35-3 | 7.24 | 7.012 | 90% | <0.694 | | | 90% | <0.662 | | | 90% | <0.741 | | | 99% | <0.690 | | |
| 2,3,3',4,5',6-Hexachlorobiphenyl | 74472-43-8 | 7.08 | 6.844 | 85% | <0.694 | | | 85% | <0.662 | | | 85% | <0.741 | | | 85% | <0.690 | | |
| 2,3,3',4',5,5'-Hexachlorobiphenyl | 39635-34-2 | 7.24 | 7.012 | 90% | <0.694 | | | 90% | <0.662 | | | 90% | <0.741 | | | 99% | <0.690 | | |
| 2,3,3',4',5,6-Hexachlorobiphenyl | 74472-44-9 | 6.96 | 6.718 | 82% | <1.39 | | | 82% | <1.32 | | | 82% | <1.48 | | | 82% | <1.38 | | |
| 2,3,3',5,5',6-Hexachlorobiphenyl | 74472-46-1 | 7.05 | 6.8125 | 85% | <0.694 | | | 85% | <0.662 | | | 85% | <0.741 | | | 85% | <0.690 | | |
| 2,3,4,4',5,6-Hexachlorobiphenyl | 41411-63-6 | 6.93 | 6.6865 | 81% | <0.694 | | | 81% | <0.662 | | | 81% | <0.741 | | | 81% | <0.690 | | |
| 2,3',4,4',5,5'-Hexachlorobiphenyl | 52663-72-6 | 7.27 | 7.0435 | 99% | <0.694 | | | 91% | <0.662 | | | 91% | <0.741 | | | 99% | <0.690 | | |
| 2,3',4,4',5',6-Hexachlorobiphenyl | 59291-65-5 | 7.11 | 6.8755 | 86% | <0.694 | | | 86% | <0.662 | | | 86% | <0.741 | | | 86% | <0.690 | | |
| 3,3',4,4',5,5'-Hexachlorobiphenyl | 32774-16-6 | 7.42 | 7.201 | 99% | <0.694 | | | 96% | <0.662 | | | 96% | <0.741 | | | 99% | <0.690 | | |
| 2,2',3,3',4,4',5'-Heptachlorobiphenyl | 35065-30-6 | 7.27 | 7.0435 | 99% | 0.698 | 69.8 | 0.00631 | 91% | 0.746 | 8.4 | 0.00076 | 91% | 0.824 | 9.3 | 0.00084 | 99% | 1.37 | 137.0 | 0.01239 |
| 2,2',3,3',4,4',6-Heptachlorobiphenyl | 52663-71-5 | 7.11 | 6.8755 | 86% | <0.694 | | | 86% | <0.662 | | | 86% | <0.741 | | | 86% | 0.574 | 4.21 | 0.00056 |
| 2,2',3,3',4,5,5'-Heptachlorobiphenyl | 52663-74-8 | 7.33 | 7.1065 | 99% | <0.694 | | | 93% | <0.662 | | | 93% | <0.741 | | | 99% | 0.508 | 50.80 | 0.00398 |
| 2,2',3,3',4,5,6-Heptachlorobiphenyl | 68194-16-1 | 7.02 | 6.781 | 84% | <0.694 | | | 84% | <0.662 | | | 84% | <0.741 | | | 84% | <0.690 | | |
| 2,2',3,3',4,5,6'-Heptachlorobiphenyl | 38411-25-5 | 7.11 | 6.8755 | 86% | 0.813 | 5.96 | 0.00079 | 86% | 0.938 | 6.88 | 0.00092 | 86% | 0.889 | 6.52 | 0.00087 | 86% | 1.38 | 10.12 | 0.00135 |
| 2,2',3,3',4,6,6'-Heptachlorobiphenyl | 52663-65-7 | 6.76 | 6.508 | 76% | <0.694 | | | 76% | <0.662 | | | 76% | <0.741 | | | 76% | <0.690 | | |
| 2,2',3,3',4,5',6'-Heptachlorobiphenyl | 52663-70-4 | 7.08 | 6.844 | 85% | 0.588 | 4.05 | 0.00058 | 85% | 0.638 | 4.39 | 0.00063 | 85% | 0.585 | 4.03 | 0.00058 | 85% | 1.19 | 8.19 | 0.00117 |
| 2,2',3,3',5,5',6'-Heptachlorobiphenyl | 52663-67-9 | 7.14 | 6.907 | 87% | <0.694 | | | 87% | <0.662 | | | 87% | <0.741 | | | 99% | 0.4 | 40.00 | 0.00496 |
| 2,2',3,3',5,6,6'-Heptachlorobiphenyl | 52663-64-6 | 6.73 | 6.4765 | 75% | 0.462 | 1.86 | 0.00062 | 75% | 0.582 | 2.34 | 0.00078 | 75% | 0.655 | 2.63 | 0.00088 | 75% | 0.839 | 3.37 | 0.00113 |
| 2,2',3,4,4',5,5'-Heptachlorobiphenyl | 35065-29-3 | 7.36 | 7.138 | 99% | 0.989 | 99 | 0.00720 | 94% | 1.23 | 20 | 0.00143 | 94% | 1.26 | 20 | 0.00147 | 99% | 2.25 | 225 | 0.01638 |
| 2,2',3,4,4',5,6-Heptachlorobiphenyl | 74472-47-2 | 7.11 | 6.8755 | 86% | <0.694 | | | 86% | <0.662 | | | 86% | <0.741 | | | 86% | <0.690 | | |
| 2,2',3,4,4',5,6'-Heptachlorobiphenyl | 60145-23-5 | 7.185 | 6.95425 | 89% | <1.39 | | | 89% | <1.32 | | | 89% | <1.48 | | | 99% | <1.38 | | |
| 2,2',3,4,4',5',6'-Heptachlorobiphenyl | 52663-69-1 | 7.2 | 6.97 | 89% | 0.504 | 4.59 | 0.00049 | 89% | 0.683 | 6.22 | 0.00067 | 89% | 0.837 | 7.62 | 0.00082 | 99% | 1.05 | 105.00 | 0.01125 |
| 2,2',3,4,4',6,6'-Heptachlorobiphenyl | 74472-48-3 | 6.85 | 6.6025 | 79% | <0.694 | | | 79% | <0.662 | | | 79% | <0.741 | | | 79% | <0.690 | | |
| 2,2',3,4,5,5',6-Heptachlorobiphenyl | 52712-05-7 | 7.11 | 6.8755 | 86% | <0.694 | | | 86% | <0.662 | | | 86% | <0.741 | | | 86% | <0.690 | | |
| 2,2',3,4,5,6,6'-Heptachlorobiphenyl | 74472-49-4 | 6.69 | 6.4345 | 74% | <0.694 | | | 74% | <0.662 | | | 74% | <0.741 | | | 74% | <0.690 | | |
| 2,2',3,4',5,5',6'-Heptachlorobiphenyl | 52663-68-0 | 7.17 | 6.9385 | 88% | 0.916 | 8 | 0.00089 | 88% | 1.29 | 11 | 0.00125 | 88% | 1.32 | 11 | 0.00128 | 99% | 1.83 | 183 | 0.02108 |
| 2,2',3,4',5,6,6'-Heptachlorobiphenyl | 74487-85-7 | 6.82 | 6.571 | 78% | <0.694 | | | 78% | <0.662 | | | 78% | <0.741 | | | 78% | <0.690 | | |
| 2,3,3',4,4',5,5'-Heptachlorobiphenyl | 39635-31-9 | 7.71 | 7.5055 | 99% | <0.694 | | | 104% | <0.662 | | | 99% | <0.741 | | | 99% | 0.456 | 45.60 | 0.00142 |
| 2,3,3',4,4',5,6-Heptachlorobiphenyl | 41411-64-7 | 7.46 | 7.243 | 99% | <0.694 | | | 97% | <0.662 | | | 97% | <0.741 | | | 99% | 0.494 | 49.40 | 0.00282 |
| 2,3,3',4,4',5',6'-Heptachlorobiphenyl | 74472-50-7 | 7.55 | 7.3375 | 99% | <0.694 | | | 99% | <0.662 | | | 99% | <0.741 | | | 99% | <0.690 | | |
| 2,3,3',4,5,5',6-Heptachlorobiphenyl | 74472-51-8 | 7.52 | 7.306 | 99% | <0.694 | | | 98% | <0.662 | | | 98% | <0.741 | | | 99% | <0.690 | | |
| 2,3,3',4',5,5',6-Heptachlorobiphenyl | 69782-91-8 | 7.52 | 7.306 | 99% | <0.694 | | | 98% | <0.662 | | | 98% | <0.741 | | | 99% | <0.690 | | |
| 2,2',3,3',4,4',5,5'-Octachlorobiphenyl | 35694-08-7 | 7.8 | 7.6 | 99% | 0.408 | 40.80 | 0.00102 | 107% | 0.398 | -5.87 | -0.00015 | 99% | 0.514 | 51.40 | 0.00129 | 99% | 0.838 | 83.80 | 0.00210 |
| 2,2',3,3',4,4',5,6-Octachlorobiphenyl | 52663-78-2 | 7.56 | 7.348 | 99% | <0.694 | | | 100% | <0.662 | | | 99% | <0.741 | | | 99% | 0.469 | 46.90 | 0.00210 |
| 2,2',3,3',4,4',5,6'-Octachlorobiphenyl | 42740-50-1 | 7.65 | 7.4425 | 99% | <0.694 | | | 102% | <0.662 | | | 99% | 0.476 | 47.60 | 0.00172 | 99% | 0.538 | 53.80 | 0.00194 |
| 2,2',3,3',4,4',6,6'-Octachlorobiphenyl | 33091-17-7 | 7.3 | 7.075 | 99% | <0.694 | | | 92% | <0.662 | | | 92% | <0.741 | | | 99% | <0.690 | | |
| 2,2',3,3',4,5,5',6-Octachlorobiphenyl | 68194-17-2 | 7.62 | 7.411 | 99% | <0.694 | | | 101% | <0.662 | | | 99% | <0.741 | | | 99% | <0.690 | | |
| 2,2',3,3',4,5,5',6'-Octachlorobiphenyl | 52663-75-9 | 7.62 | 7.411 | 99% | <0.694 | | | 101% | <0.662 | | | 99% | <0.741 | | | 99% | <0.690 | | |
| 2,2',3,3',4,5',6,6'-Octachlorobiphenyl | 40186-71-8 | 7.27 | 7.0435 | 99% | <0.694 | | | 91% | 0.43 | 4.8 | 0.00044 | 91% | 0.486 | 5.5 | 0.00049 | 99% | 0.844 | 84.4 | 0.00764 |
| 2,2',3,3',5,5',6,6'-Octachlorobiphenyl | 2136-99-4 | 7.24 | 7.012 | 90% | <0.694 | | | 90% | <0.662 | | | 90% | <0.741 | | | 99% | <0.690 | | |
| 2,2',3,4,4',5,5',6-Octachlorobiphenyl | 52663-76-0 | 7.65 | 7.4425 | 99% | <0.694 | | | 102% | <0.662 | | | 99% | <0.741 | | | 99% | 0.542 | 54.20 | 0.00196 |
| 2,2',3,4,4',5,6,6'-Octachlorobiphenyl | 74472-52-9 | 7.25 | 7.0225 | 91% | <1.39 | | | 91% | <1.32 | | | 91% | <1.48 | | | 99% | <1.38 | | |
| 2,3,3',4,4',5,5',6-Octachlorobiphenyl | 74472-53-0 | 8 | 7.81 | 99% | <0.694 | | | 113% | <0.662 | | | 99% | <0.741 | | | 99% | <0.690 | | |
| 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl | 40186-72-9 | 8.09 | 7.9045 | 99% | <0.694 | | | 115% | <0.662 | | | 99% | <0.741 | | | 99% | <0.690 | | |
| 2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl | 52663-79-3 | 7.74 | 7.537 | 99% | <0.694 | | | 105% | <0.662 | | | 99% | <0.741 | | | 99% | <0.690 | | |
| 2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl | 52663-77-1 | 7.71 | 7.5055 | 99% | <0.694 | | | 104% | <0.662 | | | 99% | <0.741 | | | 99% | <0.690 | | |
| 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl | 2051-24-3 | 8.18 | 7.999 | 99% | <0.694 | | | 118% | <0.662 | | | 99% | <0.741 | | | 99% | <0.690 | | |

Kow = octanol water partition coefficient
KPE-D = polyethylene water partition coefficient
µg/g = microgram per gram
µg/L = microgram per liter

Table 3-11
Sediment Bioaccumulation Test Porewater PCB Results---Dark Head Cove, 2020

| Congener | CAS | Log Kow | Log KPE-D* | PPW05-A | | | | PPW05-B | | | | PPW05-C | | | | PPW05-D | | | |
|---|------------|---------|------------|------------|--------|----------------|---------|------------|--------|----------------|---------|------------|--------|----------------|---------|------------|--------|----------------|---------|
| | | | | % Retained | µg/g | µg/g corrected | µg/L | % Retained | µg/g | µg/g corrected | µg/L | % Retained | µg/g | µg/g corrected | µg/L | % Retained | µg/g | µg/g corrected | µg/L |
| 2,3,3',4,4',5'-Hexachlorobiphenyl | 68782-90-7 | 7.18 | 6.949 | 99% | <0.640 | | | 88% | <0.652 | | | 99% | <0.654 | | | 99% | <0.715 | | |
| 2,3,3',4,5,5'-Hexachlorobiphenyl | 39635-35-3 | 7.24 | 7.012 | 99% | <0.640 | | | 90% | <0.652 | | | 99% | <0.654 | | | 99% | <0.715 | | |
| 2,3,3',4,5',6-Hexachlorobiphenyl | 74472-43-8 | 7.08 | 6.844 | 85% | <0.640 | | | 85% | <0.652 | | | 99% | <0.654 | | | 85% | <0.715 | | |
| 2,3,3',4',5,5'-Hexachlorobiphenyl | 39635-34-2 | 7.24 | 7.012 | 99% | <0.640 | | | 90% | <0.652 | | | 99% | <0.654 | | | 99% | <0.715 | | |
| 2,3,3',4',5,6-Hexachlorobiphenyl | 74472-44-9 | 6.96 | 6.718 | 82% | <1.28 | | | 82% | <1.30 | | | 99% | <1.31 | | | 82% | <1.43 | | |
| 2,3,3',5,5',6-Hexachlorobiphenyl | 74472-46-1 | 7.05 | 6.8125 | 85% | <0.640 | | | 85% | <0.652 | | | 99% | <0.654 | | | 85% | <0.715 | | |
| 2,3,4,4',5,6-Hexachlorobiphenyl | 41411-63-6 | 6.93 | 6.6865 | 81% | <0.640 | | | 81% | <0.652 | | | 81% | <0.654 | | | 81% | <0.715 | | |
| 2,3',4,4',5,5'-Hexachlorobiphenyl | 52663-72-6 | 7.27 | 7.0435 | 99% | <0.640 | | | 91% | <0.652 | | | 99% | <0.654 | | | 99% | <0.715 | | |
| 2,3',4,4',5',6-Hexachlorobiphenyl | 59291-65-5 | 7.11 | 6.8755 | 86% | <0.640 | | | 86% | <0.652 | | | 99% | <0.654 | | | 86% | <0.715 | | |
| 3,3',4,4',5,5'-Hexachlorobiphenyl | 32774-16-6 | 7.42 | 7.201 | 99% | <0.640 | | | 99% | <0.652 | | | 99% | <0.654 | | | 99% | <0.715 | | |
| 2,2',3,3',4,4',5-Hexachlorobiphenyl | 35065-30-6 | 7.27 | 7.0435 | 99% | 0.813 | 81.3 | 0.00736 | 91% | 0.645 | 7.2 | 0.00066 | 99% | 0.828 | 82.8 | 0.00749 | 99% | 0.803 | 80.3 | 0.00726 |
| 2,2',3,3',4,4',6-Heptachlorobiphenyl | 52663-71-5 | 7.11 | 6.8755 | 86% | 0.458 | 3.36 | 0.00045 | 86% | <0.652 | | | 99% | 0.357 | 35.70 | 0.00476 | 86% | <0.715 | | |
| 2,2',3,3',4,5,5'-Heptachlorobiphenyl | 52663-74-8 | 7.33 | 7.1065 | 99% | <0.640 | | | 93% | <0.652 | | | 99% | <0.654 | | | 99% | <0.715 | | |
| 2,2',3,3',4,5,6-Heptachlorobiphenyl | 68194-16-1 | 7.02 | 6.781 | 84% | <0.640 | | | 84% | <0.652 | | | 99% | <0.654 | | | 84% | <0.715 | | |
| 2,2',3,3',4,5,6'-Heptachlorobiphenyl | 38411-25-5 | 7.11 | 6.8755 | 86% | 0.913 | 6.69 | 0.00089 | 86% | 0.765 | 5.61 | 0.00075 | 99% | 0.98 | 98.00 | 0.01305 | 86% | 0.893 | 6.55 | 0.00087 |
| 2,2',3,3',4,6,6'-Heptachlorobiphenyl | 52663-65-7 | 6.76 | 6.508 | 76% | <0.640 | | | 76% | <0.652 | | | 76% | <0.654 | | | 76% | <0.715 | | |
| 2,2',3,3',4,5',6'-Heptachlorobiphenyl | 52663-70-4 | 7.08 | 6.844 | 85% | 0.738 | 5.08 | 0.00073 | 85% | 0.694 | 4.78 | 0.00068 | 99% | 0.796 | 79.60 | 0.01140 | 85% | 0.622 | 4.28 | 0.00061 |
| 2,2',3,3',5,5',6'-Heptachlorobiphenyl | 52663-67-9 | 7.14 | 6.907 | 99% | 0.373 | 37.30 | 0.00462 | 87% | <0.652 | | | 99% | <0.654 | | | 87% | <0.715 | | |
| 2,2',3,3',5,6,6'-Heptachlorobiphenyl | 52663-64-6 | 6.73 | 6.4765 | 75% | 0.715 | 2.87 | 0.00096 | 75% | 0.536 | 2.15 | 0.00072 | 75% | 0.667 | 2.68 | 0.00089 | 75% | 0.726 | 2.92 | 0.00097 |
| 2,2',3,4,4',5,5'-Heptachlorobiphenyl | 35065-29-3 | 7.36 | 7.138 | 99% | 1.38 | 138 | 0.01004 | 94% | 1.16 | 19 | 0.00135 | 99% | 1.29 | 129 | 0.00939 | 99% | 1.42 | 142 | 0.01033 |
| 2,2',3,4,4',5,6-Heptachlorobiphenyl | 74472-47-2 | 7.11 | 6.8755 | 86% | <0.640 | | | 86% | <0.652 | | | 99% | <0.654 | | | 86% | <0.715 | | |
| 2,2',3,4,4',5,6'-Heptachlorobiphenyl | 60145-23-5 | 7.185 | 6.95425 | 99% | <1.28 | | | 89% | <1.30 | | | 99% | <1.31 | | | 99% | <1.43 | | |
| 2,2',3,4,4',5',6'-Heptachlorobiphenyl | 52663-69-1 | 7.2 | 6.97 | 99% | 0.701 | 70.10 | 0.00751 | 89% | 0.724 | 6.59 | 0.00071 | 99% | 0.62 | 62.00 | 0.00664 | 99% | 0.649 | 64.90 | 0.00695 |
| 2,2',3,4,4',6,6'-Heptachlorobiphenyl | 74472-48-3 | 6.85 | 6.6025 | 79% | <0.640 | | | 79% | <0.652 | | | 79% | <0.654 | | | 79% | <0.715 | | |
| 2,2',3,4,5,5',6'-Heptachlorobiphenyl | 52712-05-7 | 7.11 | 6.8755 | 86% | <0.640 | | | 86% | <0.652 | | | 99% | <0.654 | | | 86% | <0.715 | | |
| 2,2',3,4,5,6,6'-Heptachlorobiphenyl | 74472-49-4 | 6.69 | 6.4345 | 74% | <0.640 | | | 74% | <0.652 | | | 74% | <0.654 | | | 74% | <0.715 | | |
| 2,2',3,4',5,5',6'-Heptachlorobiphenyl | 52663-68-0 | 7.17 | 6.9385 | 99% | 1.25 | 125 | 0.01440 | 88% | 1.24 | 10 | 0.00120 | 99% | 1.41 | 141 | 0.01624 | 99% | 1.46 | 146 | 0.01682 |
| 2,2',3,4',5,6,6'-Heptachlorobiphenyl | 74487-85-7 | 6.82 | 6.571 | 78% | <0.640 | | | 78% | <0.652 | | | 78% | <0.654 | | | 78% | <0.715 | | |
| 2,3,3',4,4',5,5'-Heptachlorobiphenyl | 39635-31-9 | 7.71 | 7.5055 | 99% | <0.640 | | | 99% | <0.652 | | | 99% | <0.654 | | | 99% | <0.715 | | |
| 2,3,3',4,4',5,6-Heptachlorobiphenyl | 41411-64-7 | 7.46 | 7.243 | 99% | <0.640 | | | 99% | <0.652 | | | 99% | <0.654 | | | 99% | <0.715 | | |
| 2,3,3',4,4',5',6'-Heptachlorobiphenyl | 74472-50-7 | 7.55 | 7.3375 | 99% | <0.640 | | | 99% | <0.652 | | | 99% | <0.654 | | | 99% | <0.715 | | |
| 2,3,3',4,5,5',6'-Heptachlorobiphenyl | 74472-51-8 | 7.52 | 7.306 | 99% | <0.640 | | | 99% | <0.652 | | | 99% | <0.654 | | | 99% | <0.715 | | |
| 2,3,3',4',5,5',6'-Heptachlorobiphenyl | 69782-91-8 | 7.52 | 7.306 | 99% | <0.640 | | | 99% | <0.652 | | | 99% | <0.654 | | | 99% | <0.715 | | |
| 2,2',3,3',4,4',5,5'-Octachlorobiphenyl | 35694-08-7 | 7.8 | 7.6 | 99% | 0.571 | 57.10 | 0.00143 | 99% | 0.438 | 43.80 | 0.00110 | 99% | 0.382 | 38.20 | 0.00096 | 99% | <0.715 | | |
| 2,2',3,3',4,4',5,6-Octachlorobiphenyl | 52663-78-2 | 7.56 | 7.348 | 99% | <0.640 | | | 99% | <0.652 | | | 99% | <0.654 | | | 99% | <0.715 | | |
| 2,2',3,3',4,4',5,6'-Octachlorobiphenyl | 42740-50-1 | 7.65 | 7.4425 | 99% | <0.640 | | | 99% | <0.652 | | | 99% | <0.654 | | | 99% | <0.715 | | |
| 2,2',3,3',4,4',6,6'-Octachlorobiphenyl | 33091-17-7 | 7.3 | 7.075 | 99% | <0.640 | | | 92% | <0.652 | | | 99% | <0.654 | | | 99% | <0.715 | | |
| 2,2',3,3',4,5,5',6-Octachlorobiphenyl | 68194-17-2 | 7.62 | 7.411 | 99% | <0.640 | | | 99% | <0.652 | | | 99% | <0.654 | | | 99% | <0.715 | | |
| 2,2',3,3',4,5,5',6'-Octachlorobiphenyl | 52663-75-9 | 7.62 | 7.411 | 99% | <0.640 | | | 99% | <0.652 | | | 99% | <0.654 | | | 99% | <0.715 | | |
| 2,2',3,3',4,5',6,6'-Octachlorobiphenyl | 40186-71-8 | 7.27 | 7.0435 | 99% | 0.452 | 45.2 | 0.00409 | 91% | 0.415 | 4.7 | 0.00042 | 99% | 0.497 | 49.7 | 0.00450 | 99% | 0.364 | 36.4 | 0.00329 |
| 2,2',3,3',5,5',6,6'-Octachlorobiphenyl | 2136-99-4 | 7.24 | 7.012 | 99% | <0.640 | | | 90% | <0.652 | | | 99% | <0.654 | | | 99% | <0.715 | | |
| 2,2',3,4,4',5,5',6-Octachlorobiphenyl | 52663-76-0 | 7.65 | 7.4425 | 99% | <0.640 | | | 99% | <0.652 | | | 99% | <0.654 | | | 99% | <0.715 | | |
| 2,2',3,4,4',5,6,6'-Octachlorobiphenyl | 74472-52-9 | 7.25 | 7.0225 | 99% | <1.28 | | | 91% | <1.30 | | | 99% | <1.31 | | | 99% | <1.43 | | |
| 2,3,3',4,4',5,5',6-Octachlorobiphenyl | 74472-53-0 | 8 | 7.81 | 99% | <0.640 | | | 99% | <0.652 | | | 99% | <0.654 | | | 99% | <0.715 | | |
| 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl | 40186-72-9 | 8.09 | 7.9045 | 99% | <0.640 | | | 99% | <0.652 | | | 99% | <0.654 | | | 99% | <0.715 | | |
| 2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl | 52663-79-3 | 7.74 | 7.537 | 99% | <0.640 | | | 99% | <0.652 | | | 99% | <0.654 | | | 99% | <0.715 | | |
| 2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl | 52663-77-1 | 7.71 | 7.5055 | 99% | <0.640 | | | 99% | <0.652 | | | 99% | <0.654 | | | 99% | <0.715 | | |
| 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl | 2051-24-3 | 8.18 | 7.999 | 99% | <0.640 | | | 99% | <0.652 | | | 99% | <0.654 | | | 99% | <0.715 | | |

Kow = octanol water partition coefficient
KPE-D = polyethylene water partition coefficient
µg/g = microgram per gram
µg/L = microgram per liter

Table 3-12
Average Sediment Porewater and Surface Water Concentrations (Measured) at Baseline, Year One, and Year Three
Dark Head Cove

| Monitoring Location | 301 | 302 | 303 | 304 | 305 | Overall Site-wide Average |
|---|----------------|---------------|---------------|----------------|----------------|---------------------------|
| <i>In Situ Porewater Total PCB</i> | | | | | | |
| Baseline (ng/L) | 11.3 (1.2) | 57.2 (4.03) | 22.7 (4.8) | 11.2 (1.51) | Not recovered | 25.6 |
| Year 1 (ng/L) | 0.271 (0.15) | 0.965 (0.645) | 0.635 (0.16) | 0.282 (0.0254) | 2.29 (1.48) | 0.89 |
| % Reduction Baseline to Year 1 | 97.6 | 98.3 | 97.2 | 97.5 | Not calculated | 96.5 |
| Year 3 (ng/L) | Not recovered | 0.288 (0.096) | 0.370 (0.063) | 0.391 (0.039) | 0.444 (0.0093) | 0.373 |
| % Reduction Baseline to Year 3 | Not calculated | 99.5 | 98.4 | 96.5 | Not calculated | 98.5 |
| <i>Surface Water</i> | | | | | | |
| Baseline (ng/L) | 7.2 | 23.1 | 12.9 | 10.8 | Not recovered | 13.5 |
| Year 1 (ng/L) | 1.6 | 7.1 | 2.0 | 1.9 | 8.1 | 4.1 |
| % Reduction Baseline to Year 1 | 77.8 | 69.7 | 84.5 | 85.4 | Not calculated | 69.6 |
| Year 3 (ng/L) | Not recovered | 0.304 | 0.389 | 0.318 | 0.365 | 0.344 |
| % Reduction Baseline to Year 3 | Not calculated | 98.7 | 97.0 | 97.1 | Not calculated | 97.5 |

Total PCB Concentrations for detected congeners (standard deviation of three replicates)

NA = not applicable

ng/L = nanogram(s) per kilogram

PCB = polychlorinated biphenyl

Location 305: sediment pore water and surface water samplers were not recovered in the baseline sampling event.

Location 301: sediment pore water and surface water samplers were not recovered in the Year 3 Monitoring event.

*Site-wide average % reductions are calculated using the difference baseline average, Year 1 and Year 3 average PCB concentrations and are not an average of the % reduction values calculated for each station (i.e., are not an average of % reduction column).

Table 3-13

**Average *Ex situ* Bioaccumulation Test Porewater Concentrations (Measured) at Baseline, Year One, and Year Three —
Dark Head Cove**

| Monitoring Location | 301 | 302 | 303 | 304 | 305 | Overall Site-Wide Average |
|--------------------------------|---------------|---------------|--------------|---------------|------------------|----------------------------------|
| Baseline Total PCB (ng/L) | 17.3 (5.48) | 46.5 (16.1) | 21.7 (3.69) | 19.8 (10.5) | 20.7 (10.1) | 25.2 |
| Year 1 Total PCB (ng/L) | 0.014 (0.009) | 0.66 (0.843) | 2.16 (1.3) | 1.03 (1.27) | 0.0016 (0.00073) | 0.77 |
| % Reduction Baseline to Year 1 | 99.9 | 98.6 | 90.0 | 94.8 | 99.9 | 96.9 |
| Year 3 Total PCB (ng/L) | 0.073 (0.033) | 0.082 (0.025) | 0.28 (0.060) | 0.080 (0.098) | 0.12 (0.080) | 0.128 |
| % Reduction Baseline to Year 3 | 99.6 | 99.8 | 98.7 | 99.6 | 99.4 | 99.5 |

Total PCB Concentrations for detected congeners (standard deviation of four replicates)

ng/L = nanogram(s) per liter

PCB = polychlorinated biphenyl

*Site-wide average % reductions are calculated using the difference baseline average, Year 1, and Year 3 average PCB concentrations and are not an average of the % reduction values calculated for each station (i.e., are not an average of % reduction column).

Table 4-1
Total PCB Concentrations in Sediment at Baseline, Year One, and Year Three—Dark Head Cove

| Location | 301 | 302 | 303 | 304 | 305 | Site-wide |
|------------------------|-------|-------|------|-------|-------|-----------|
| Baseline (2016) | | | | | | |
| Sample) | 1.65 | 6.56 | 2.72 | 2.45 | 1.92 | 3.06 |
| Duplicate | 0.501 | 5.46 | 2.78 | 0.259 | 1.17 | 2.03 |
| Average | 1.08 | 6.01 | 2.75 | 1.36 | 1.55 | 2.55 |
| RPD | 107 | 18 | 2 | 162 | 49 | 40 |
| Year 1 (2018) | | | | | | |
| Sample | 0.143 | 1.16 | 1.33 | 1.04 | 0.157 | 0.766 |
| Duplicate | 0.149 | 0.281 | 1.65 | 1.25 | 0.153 | 0.697 |
| Average | 0.146 | 0.721 | 1.49 | 1.15 | 0.155 | 0.731 |
| RPD | 4.1 | 122 | 22 | 18 | 2.6 | 9.5 |
| Year 3 (2020) | | | | | | |
| Sample | 0.015 | 0.938 | 1.78 | 0.266 | 0.960 | 0.792 |
| Duplicate | 0.550 | 0.958 | 1.62 | 0.274 | 0.876 | 0.855 |
| Average | 0.282 | 0.948 | 1.70 | 0.270 | 0.918 | 0.824 |
| RPD | 189 | 2.1 | 9.7 | 2.8 | 9.2 | 35.1 |

Total PCB concentrations for detected congeners.
All concentrations are in milligram(s) per kilogram (mg/kg).

PCB = polychlorinated biphenyl
RPD = relative percent difference

Table 4-2
Total PCB Concentrations in Benthic Tissue at Baseline, Year One, and Year Three—Dark Head Cove

| Location | 301 | 302 | 303 | 304 | 305 | Site-wide |
|--|-------------------|-------------------|-------------------|------------------|-----------------|------------------|
| Tissue Total PCB (µg/g wet wt) | | | | | | |
| Baseline (2016) | 0.273 (0.0573) | 0.793 (0.21) | 0.435 (0.0596) | 0.369 (0.0951) | 0.276 (0.076) | 0.429 (0.222) |
| Year 1 (2018) | 0.00249 (0.00246) | 0.0244 (0.0139) | 0.0457 (0.0349) | 0.0229 (0.004) | 0.00267 (0.002) | 0.0196 (0.0226) |
| % Reduction Baseline to Year 1 | 99.0% | 96.9% | 89.5% | 93.8% | 96.4% | 95.0% |
| Year 3 (2020) | 0.00235 (0.00057) | 0.00292 (0.00051) | 0.01185 (0.00306) | 0.00482 (0.0025) | 0.0046 (0.0019) | 0.00524 (0.0038) |
| % Reduction Baseline to Year 3 | 99.1% | 99.6% | 97.4% | 98.7% | 96.9% | 98.7% |
| Lipids-normalized Total PCB (µg/g lipids) | | | | | | |
| Baseline (2016) | 62.8 (14.3) | 221 (45.4) | 109 (29.4) | 86.8 (26.5) | 73.6 (30.5) | 111 (64.9) |
| Year 1 (2018) | 0.153 (0.064) | 3.88 (2.64) | 8.68 (7.26) | 2.72 (0.741) | 0.422 (0.372) | 2.17 (4.47) |
| % Reduction Baseline to Year 1 | 99.7% | 98.2% | 92.0% | 96.9% | 99.4% | 97.1% |
| Year 3 (2020) | 0.315 (0.0938) | 0.508 (0.283) | 1.55 (0.63) | 0.527 (0.28) | 0.427 (0.20) | 0.665 (0.56) |
| % Reduction Baseline to Year 3 | 99.5% | 99.8% | 98.6% | 99.4% | 99.4% | 99.4% |

Total PCB Concentrations for detected congeners (standard deviation of five replicates)

µg/g = microgram(s) per gram
 PCB = polychlorinated biphenyl

Table 4-3
Baseline, Year One, and Year Three Biota-Sediment Accumulation Factors—Dark Head Cove

| Location | Baseline BSAF (average) | Baseline Standard Deviation | Year 1 BSAF (average) | Year 1 standard deviation | % Reduction Baseline to Year 1 | Year 3 BSAF (average) | Year 3 Standard Deviation | % Reduction Baseline to Year 3 |
|-----------------|--------------------------------|------------------------------------|------------------------------|----------------------------------|---------------------------------------|------------------------------|----------------------------------|---------------------------------------|
| SD-301 | 1.82 | 0.42 | 0.082 | 0.034 | 95.5% | 0.0132 | 0.002 | 99.2% |
| SD-302 | 1.37 | 0.28 | 0.224 | 0.152 | 83.6% | 0.0346 | 0.019 | 97.5% |
| SD-303 | 1.27 | 0.34 | 0.317 | 0.265 | 75.0% | 0.081 | 0.033 | 93.6% |
| SD-304 | 2.14 | 0.65 | 0.154 | 0.042 | 92.8% | 0.158 | 0.084 | 92.6% |
| SD-305 | 1.64 | 0.68 | 0.174 | 0.154 | 89.4% | 0.0361 | 0.199 | 97.8% |
| Site-wide | 1.65 | 0.56 | 0.263 | 0.162 | 84.1% | 0.0645 | 0.179 | 96.1% |

BSAF = biota-sediment accumulation factor

APPENDICES

Appendices are available upon request.

Appendix A— Field Logs

Appendix B— 28-Day Laboratory Bioaccumulation Report

Appendix C— Laboratory Data Packages

Appendix D— Data Validation Reports