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Via Electronic Mail

June 30, 2025

Ms. Lisa Danek Burke
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U.S. Environmental Protection Agency
New England Region
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Re: GE-Pittsfield/Housatonic River Site
Rest of River (GECD850)
Final Revised Vernal Pool Pilot Study Work Plan

Dear Ms. Danek Burke:

In accordance with GE's November 2023 *Revised Vernal Pool Pilot Study Work Plan* approved by EPA, enclosed for EPA's review and approval is GE's *Final Revised Vernal Pool Pilot Study Work Plan*.

Please let me know if you have any questions about this final work plan or if you would like to discuss it.

Very truly yours,

Kevin G. Mooney
Senior Project Manager

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Vernal Pool 5A-VP-42

June 2025
GE-Pittsfield/Housatonic River Site

ANCHOR QEA AECOM

Final Revised Vernal Pool Pilot Study Work Plan

June 2025
GE-Pittsfield/Housatonic River Site

Final Revised Vernal Pool Pilot Study Work Plan

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ABBREVIATIONS

µm	micrometer
AC	activated carbon
ACU	Amendment Certification Unit
ASOS	Automated Surface Observation System
ASTM	ASTM International
CD	Consent Decree
CQAP	Construction Quality Assurance Plan
CWD	coarse woody debris
DBH	diameter at breast height
DQO	data quality objective
EA	Exposure Area
EC_{20}	20% effects concentration
EPA	U.S. Environmental Protection Agency
ERA	*Ecological Risk Assessment for General Electric (GE)/Housatonic River Site, Rest of River*
Final Pilot Work Plan	*Final Revised Vernal Pool Pilot Study Work Plan*
Final Revised SOW	*Final Revised Rest of River Statement of Work*
Final Vernal Pool Report	*Final Report on Potential Vernal Pool Investigations*
FSP/QAPP	*Field Sampling Plan/Quality Assurance Project Plan*
GAC	granular activated carbon
GE	General Electric Company
Initial Pilot Work Plan	*Vernal Pool Pilot Study Work Plan*
kg	kilogram
K_{OC}	organic carbon-porewater partitioning coefficient
L	liter
MassDFW	Massachusetts Division of Fisheries and Wildlife
mg	milligram
MNHESP	Massachusetts Natural Heritage and Endangered Species Program
Non-Residential Floodplain PDI Report	*Pre-Design Investigation Summary Report for Reach 5A Non-Residential Floodplain Exposure Areas*
OC	organic carbon
PAC	powdered activated carbon
PCB	polychlorinated biphenyl
PDI	pre-design investigation
POP	*Project Operations Plan*
QOL	Quality of Life

QOL Compliance Plan	*Second Revised Quality of Life Compliance Plan*
RCRA	Resource Conservation and Recovery Act
RD/RA	Remedial Design/Remedial Action
Reach 5A Conceptual RD/RA Work Plan	*Conceptual Remedial Design/Remedial Action Work Plan for Reach 5A*
Revised Final Permit	*Revised Final Permit Modification to the 2016 Reissued RCRA Permit and Selection of CERCLA Remedial Action and Operation & Maintenance for Rest of River*
Revised Pilot Work Plan	*Revised Vernal Pool Pilot Study Work Plan*
Revised T&D Plan	*Revised On-Site and Off-Site Transportation and Disposal Plan*
ROR	Rest of River
Selection Proposal	*Vernal Pool Pilot Study Selection Proposal*
SIP	Supplemental Information Package
SOP	standard operating procedure
SPME	solid-phase microextraction
SWAC	spatially weighted average concentration
TCLP	toxicity characteristic leaching procedure
TOC	total organic carbon
TSCA	Toxic Substances Control Act
TSDF	treatment, storage, and disposal facility

1 Introduction and Overview

1.1 Background

On December 16, 2020, pursuant to the 2000 Consent Decree (CD) for the GE-Pittsfield/Housatonic River Site, the U.S. Environmental Protection Agency (EPA) issued to the General Electric Company (GE) a final revised modification of GE's Resource Conservation and Recovery Act (RCRA) Corrective Action Permit (Revised Final Permit) for the Housatonic Rest of River (ROR) (EPA 2020). The ROR is defined as that portion of the Housatonic River and its backwaters and floodplain (excluding Actual/Potential Lawns as defined in the CD) located downstream of the confluence of the East and West Branches of the Housatonic River (the Confluence). The Revised Final Permit set forth a Remedial Action selected by EPA to address polychlorinated biphenyls (PCBs) in the ROR.

The Revised Final Permit required GE to develop and submit a Statement of Work specifying the deliverables and activities that GE will conduct to design and implement the ROR Remedial Action. In accordance with that requirement, after receipt of EPA's comments on an earlier version, GE submitted the *Final Revised Rest of River Statement of Work* (Final Revised SOW) on September 14, 2021 (Anchor QEA et al. 2021), and EPA approved it on September 16, 2021.

Section II.B.3.b of the Revised Final Permit and Section 4.2.4 of the Final Revised SOW require GE to conduct a pilot study to evaluate the use of both traditional excavation/restoration techniques and amendments, such as activated carbon (AC), for the remediation of vernal pools. They provide further that the first step in the pilot study process is for GE to submit a plan proposing up to 10 specific vernal pools to be included in the pilot study. On November 23, 2022, GE submitted a *Vernal Pool Pilot Study Selection Proposal* (Selection Proposal; Anchor QEA and AECOM 2022), proposing 10 vernal pools in Reach 5A for inclusion in the pilot study and presenting the rationale for that selection. That submittal also identified which pools would be subject to traditional excavation/restoration methods and which would be subject to placement of an amendment. Following that submittal, EPA requested additional information to support its review of GE's Selection Proposal, and GE provided such supplemental information to EPA via email on December 15, 2022. On February 8, 2023, EPA issued a conditional approval letter for GE's Selection Proposal.

The Final Revised SOW provided that, following EPA approval of the Selection Proposal, GE would submit a work plan that contains design information related to pilot study activities to be conducted in each of the 10 selected pools. As required, GE submitted a *Vernal Pool Pilot Study Work Plan* on June 8, 2023 (hereafter referred to as the Initial Pilot Work Plan) (Anchor QEA and AECOM 2023). EPA issued a conditional approval letter for the Initial Pilot Work Plan on September 12, 2023. Consistent with Section 1.6 of the Initial Pilot Work Plan, that letter directed GE to submit a *Revised Vernal Pool Pilot Study Work Plan* (Revised Pilot Work Plan) within 60 days. Consistent with

that directive, a Revised Pilot Work Plan was submitted to EPA on November 13, 2023. That Revised Pilot Work Plan included revisions to address EPA's conditions in its September 12, 2023, conditional approval letter, as well as the other changes and additional design information specified in Section 1.6 of the Initial Pilot Work Plan, including details for conducting a baseline monitoring and ecological survey program for the vernal pools selected for the pilot study and the final experimental design of bench-scale testing of amendments. EPA approved that work plan on December 5, 2023.

The Revised Pilot Work Plan specified that, following completion of the baseline monitoring, ecological survey, and bench-scale testing, a Final Revised Vernal Pool Pilot Study Work Plan (Final Pilot Work Plan) would be prepared and submitted to present the results of those activities and the final design of the pilot study. This document constitutes that Final Pilot Work Plan.[1]

1.2 Summary of Vernal Pool Requirements in Revised Final Permit

The requirements of the Revised Final Permit relating to the remediation of vernal pools in the ROR floodplain were summarized in Section 1.2 of the approved Revised Pilot Work Plan. That summary is repeated in this section for completeness.

Section II.B.3 of the Revised Final Permit sets forth the performance standards and other requirements for ROR floodplain soil and vernal pools. It requires remediation of any vernal pool where PCB concentrations in the soil/sediment[2] exceed a spatially weighted average total PCB concentration of 3.3 milligrams per kilogram (mg/kg) (Section II.B.3.b.(1)(a)). This is in addition to any remediation required in the vernal pools to meet the performance standards for floodplain soils described in Section II.B.3.a.(1). The Revised Final Permit requires GE to conduct sampling of vernal pools to generate baseline data on the concentrations of total PCBs in soil to identify vernal pools that exceed the numerical performance standard (Section II.B.3.b.(2)(b)).

For vernal pools having a spatial average total PCB concentration exceeding 3.3 mg/kg in soil, the Revised Final Permit requires remediation by either: (1) excavation and backfill to pre-excavation elevations to achieve a spatially weighted average concentration of 3.3 mg/kg (removal-based remediation); or (2) placement of an amendment, such as AC or another comparable amendment, in the vernal pool to reduce the bioavailability of PCBs in soil to a level less than or equal to the bioavailability of PCBs associated with the 3.3 mg/kg performance standard (amendment-based remediation) (Section II.B.3.b.(1)(b)).

The Revised Final Permit requires a pilot study to be conducted on no more than 10 vernal pools as a means of evaluating the two approaches for vernal pool remediation (Sections II.B.3.b.(1)(b) and (2)(d)).

[1] Several sections and discussions in this work plan reiterate or are based on similar sections and discussions in the EPA-approved Revised Pilot Work Plan but are repeated for completeness in this Final Pilot Work Plan.

[2] In this work plan, the terms "soil" and "sediment" are used interchangeably for the substrate in vernal pools.

The Revised Final Permit also calls for the submission of a Pilot Study Work Plan that identifies the methods to be used for the study and the criteria for success (Section II.B.3.b.(2)(d)). The criteria for success must consider the methods for evaluating the reductions in bioavailability achieved by the amendment-based alternative, as well as the impact of such amendments on the ecology of the vernal pools (Section II.B.3.b.(2)(e)).

The results of the pilot study are to be documented in a report describing the effectiveness of both the removal-based and amendment-based remediation in achieving the vernal pool performance standard, as well as the ecological effects of the amendment-based remediation (Sections II.B.3.b.(2)(f) and (2)(g)). Based on the results of the pilot study, EPA will determine the preferred method for remediation and restoration of the remaining vernal pools, considering the Core Area habitat restrictions specified in the Revised Final Permit (Sections II.B.3.b.(1)(b)(iii) and (2)(h)). If the amendment-based remediation is workable and effective, some combination of both removal-based and amendment-based remediation may be used in those remaining pools, depending on the location and conditions of a given vernal pool to be remediated.

1.3 Summary of Existing Vernal Pool Data

The existing vernal pool data were summarized in Section 1.3 of the approved Revised Pilot Work Plan. That summary is repeated in this section for completeness.

GE's *Final Report on Potential Vernal Pool Investigations* (Final Vernal Pool Report) (AECOM 2020) stated that a total of 68 vernal pools had been identified in Reach 5A and were determined to meet the biological and physical criteria for certification of vernal pools issued by the Massachusetts Division of Fisheries and Wildlife (MassDFW) Natural Heritage and Endangered Species Program (MNHESP). After receipt of comments from MNHESP, GE revised its evaluation and noted that nine of those 68 pools did not, in fact, meet the applicable vernal pool criteria, leaving 59 identified vernal pools in the Reach 5A floodplain (GE 2021). EPA approved that revised evaluation on March 9, 2021. In addition, EPA directed GE to investigate one additional vernal pool located outside the floodplain east of 5A-VP-24A (identified as 5A-VP-24B) during the non-residential floodplain pre-design investigation (PDI) (Anchor QEA 2022); therefore, this vernal pool was subsequently added to the list. These 60 vernal pools identified in Reach 5A are shown on Figure 1-1.

Total PCB concentrations in the top one foot of vernal pool soils were determined using data collected as part of the 2022 PDI of non-residential floodplain Exposure Areas (EAs) in Reach 5A, supplemented by historical floodplain soil data and other PDI data collected from floodplain residential properties in Reach 5A. As part of the non-residential floodplain PDI, GE collected 371 soil cores in vernal pools in Reach 5A between May and August 2022, yielding a total of 646 samples in either 0- to 0.5-foot and/or 0.5- to 1-foot depth intervals. These samples were generally positioned at an approximate 50-foot spacing for pools greater than approximately 0.1 acre in size, except in

one large pool (5A-VP-77), where samples were positioned at an approximate 100-foot spacing. For pools less than 0.1 acre, a minimum of three cores were collected and analyzed.

The historical vernal pool data include samples collected by EPA under its Supplemental Investigation conducted between 1998 and 2002 and other historical floodplain soil samples collected by GE in 1992 as part of the Massachusetts Contingency Plan Phase II Investigation. These two historical field efforts yielded 159 samples in the top one foot of vernal pool soils, with the majority of the samples collected from the surficial 0.5-foot interval (Table 1-1). In addition, GE collected PDI samples on Actual/Potential Lawn properties between 2013 and 2015 and for other Reach 5A floodplain residential properties in 2020 and 2021, yielding a total of 11 samples in vernal pools; these samples were analyzed for PCBs within the 0- to 1-foot interval.

The PCB sample counts in the Reach 5A vernal pools from these programs are shown in Table 1-1, and the PCB data are presented in Appendix A.[3]

Table 1-1
Summary of Total PCB Sample Counts in Reach 5A Vernal Pools

Program	Lead Entity	0–0.5 foot	0.5–1 foot	0–1 foot	Total
1990–1992 Massachusetts Contingency Plan Phase II Investigation	GE	2	2	—	4
1998–2002 EPA Supplemental Investigation	EPA	148	7	—	155
2013–2015 PDI (Actual/Potential Lawn Properties)	GE	—	—	5	5
2020–2021 PDI (Reach 5A Residential Floodplain Properties)	GE	—	—	6	6
2022 PDI (Reach 5A Non-Residential Floodplain EAs)	GE	275	371	—	646
	Total	**425**	**380**	**11**	**816**

Note:
—: no data

Using the dataset summarized in Table 1-1 and presented in Appendix A, spatially weighted average concentrations (SWACs) for total PCBs within the 0- to 1-foot depth interval were calculated for each of the 60 vernal pools. Those PCB SWACs are shown in Table 1-2.[4] That table also presents the total organic carbon (TOC) results, where available, for the vernal pools. Maps depicting the PCB concentrations in the 0- to 0.5-foot and 0.5- to 1-foot depth intervals and the measured and

[3] The dataset summarized in Table 1-1 and presented in Appendix A does not include PCB results from the 2024 baseline monitoring in the five amendment-based test pools, which was performed to establish the initial soil total PCB and total organic carbon (TOC) concentrations and porewater PCB concentrations in the pools prior to treatment, because those baseline data were not used to support the determination of which pools exceed the performance standard of 3.3 mg/kg. The 2024 baseline monitoring data are discussed in Section 4.1.

[4] The details of the data processing conducted prior to calculation of the SWACs are described in Appendix A of the *Second Revised Pre-Design Investigation Work Plan for Non-Residential Floodplain Exposure Areas* (Anchor QEA 2021).

calculated 0- to 1-foot depth interval are also provided in Appendix A.[5] As shown in Table 1-2, 48 of the vernal pools in Reach 5A have a total PCB SWAC in the top one foot that exceeds the performance standard of 3.3 mg/kg. This is depicted in the cumulative probability distribution shown on Figure 1-2.

GE's 2020 Final Vernal Pool Report (AECOM 2020) summarizes the physical and biological surveys that were conducted on the Reach 5A vernal pools to confirm their status as vernal pools. Physical surveys were conducted in summer 2018 and summer and fall 2019 to document the physical and hydrologic conditions of the pools, including the existence of a permanently flowing outlet. These surveys also established the presence or absence of a reproducing fish population within the pools. Biological surveys were conducted in spring 2018 and 2019 to identify the presence and abundance of obligate and facultative amphibian species for determining whether a pool meets the MNHESP criteria for certification as a vernal pool. The results of these surveys are summarized in Table 1-2 (attached).

The investigations and surveys conducted to date provide a comprehensive dataset to characterize the chemical, physical, and ecological conditions of the Reach 5A vernal pools. Additional survey data on the vernal pools included in this pilot study were collected as part of this study, as described in Section 4.1, to further characterize the vernal pools selected for the study.

1.4 Summary of Vernal Pool Pilot Study Selection

The selection of the specific vernal pools to be included in the pilot study was described in Section 1.4 of the Revised Pilot Work Plan and approved by EPA. Again, that description is repeated in this section for completeness and to set the stage for the final design of the pilot study.

As noted in Section 1.1, GE's Selection Proposal (approved by EPA) described the 10 vernal pools to be included in the pilot study. Several criteria were used to select those 10 pools, including: (1) the PCB SWACs in the pools; (2) pool size; (3) pool accessibility; (4) surrounding habitat; (5) location outside of Core Area 1 habitat; (6) known species within the pool; (7) vegetative cover within the pool; and (8) pool hydrology. These 10 pools will receive either removal-based or amendment-based remediation (collectively referred to hereafter as "test pools") during the pilot study. Those 10 test pools are highlighted in Table 1-2, listed in Table 1-3, and shown on Figure 1-1. After EPA's approval of the Selection Proposal, GE selected seven additional vernal pools to be used as field controls (referred to hereafter as "control pools") during the pilot study. The control pools will be used to differentiate any changes that may occur in vernal pool ecology as a result of remediation from changes that may occur naturally. The control pools are likewise listed in Table 1-3 and shown on

[5] As shown in Table 1-2, the PCB SWAC in the one additional, non-floodplain vernal pool that EPA directed GE to add to the PDI (5A-VP-24B), as discussed in this section, is less than 1 mg/kg. As a result, no further evaluation of this pool is warranted.

Figure 1-1. The basis for selecting both the test and control pools for the pilot study is summarized in the following sections.

1.4.1 Test Pools

The criteria used to select the test pools for the pilot study were described previously in the Selection Proposal and are summarized as follows:

- **PCB SWAC:** Pools covering the approximate range of PCB concentrations observed in the Reach 5A vernal pools were selected as test pools for the pilot study to assess remedy effectiveness in pools with varying PCB concentrations. The calculated PCB SWACs of all Reach 5A vernal pools range from 0.08 to 77 mg/kg, and the PCB SWACs in the 10 selected test pools range from 6.3 to 45 mg/kg (Table 1-3).
- **Size:** Vernal pools of varying sizes were selected for the pilot study. The mean size of all confirmed vernal pools in Reach 5A is approximately 0.36 acre. Vernal pools were designated as "average" in size if their size was within 50% of the mean value (i.e., between 0.18 and 0.54 acre). Pools larger or smaller than this range were designated as "large" or "small," respectively. Of all Reach 5A vernal pools, 20 are "average," 10 are "large," and 30 are "small." Of the test pools selected for the pilot study, five are "average," two are "large," and three are "small" (Table 1-3).
- **Accessibility:** Many of the vernal pools in the Reach 5A floodplain are difficult to access for several reasons (e.g., located far from any existing road or upland access point, located far from the river channel, or containing extensive vegetation in the vicinity of the pool). Pools with reasonable accessibility from an upland access point were given preference as test pools for the pilot study (Table 1-3).
- **Surrounding habitat:** In selecting the test pools for the pilot study, an effort was made, where possible, to avoid pools where surrounding sensitive habitat might be particularly adversely affected by construction activities, such as proximity to other vernal pools, areas with a potential direct hydrologic connection to the river, proximity to local residences, or proximity to Core Area 1 habitats.
- **Core Area 1:** Section 4.2.4 of the EPA-approved Final Revised SOW states that no vernal pools located within Core Area 1 habitat would be selected for the pilot study. Fifteen of the vernal pools in Reach 5A are located in Core Area 1 habitat and, therefore, were eliminated from consideration for the pilot study.
- **Known species within pool:** The pilot study selection process included the selection of vernal pools that supported both obligate and facultative vernal pool species. Priority was placed on selecting test pools where more numerous obligate species (e.g., wood frogs) have

been documented, although one test pool was confirmed as a vernal pool based only on the presence of fairy shrimp (which is not uncommon in the Reach 5A floodplain).

- **Vegetative cover within pool:** While not a significant factor in the selection process, the test pools selected for the pilot study contain a range of habitat cover types, including open-water, deep marsh, shallow marsh, shrub swamp, and forested swamp. An effort was made to select test pools that encompass a range of cover types, rather than focusing on only one habitat type.
- **Pool hydrology:** Given that most vernal pools are normally dry for a portion of the year, preference was given to pools that exhibited a typical vernal pool hydrology rather than being wetter or drier than a "normal" pool.

Table 1-3
Summary of Vernal Pools Selected for the Pilot Study and Control Pools

Vernal Pool ID	Area (acres)[1]	Total PCB SWAC (0–1 foot; mg/kg)	Parcel Owner	Accessibility	Pool Type
5A-VP-9	0.60 (Large)	44	MassDFW	Accessible via easement to the north (EA 4)	Amendment
5A-VP-12	0.27 (Average)	25	Private (Miss Hall's School)	Accessible via Miss Hall's School property	Amendment
5A-VP-15	0.37 (Average)	28	Private (Parcel I6-3-1)	Accessible via easement to the north (EA 4)	Amendment
5A-VP-22	0.82 (Large)	6.1	MassDFW	Accessible via easement to the east (EA 12)	Amendment
5A-VP-27	0.08 (Small)	7.6	Private (Parcel J5-2-11)	Accessible via easement to the west (EA 12)	Amendment
5A-VP-4	0.23 (Average)	14	MassDFW	Accessible via easements to the south (EA 4) and west (EA 61)	Excavation/ Restoration
5A-VP-7	0.41 (Average)	33	MassDFW	Accessible via easements to the north (EA 4) and west (EA 61)	Excavation/ Restoration
5A-VP-16	0.04 (Small)	7.1	Private (Parcel I6-3-1)	Accessible via easement to the north (EA 4)	Excavation/ Restoration
5A-VP-52	0.06 (Small)	40	MassDFW	Accessible via easement to the west (EA 12)	Excavation/ Restoration
5A-VP-57	0.49 (Average)	30	MassDFW	Accessible via easement to the west (EA 12)	Excavation/ Restoration
5A-VP-3	0.39 (Average)	18	MassDFW	Accessible via private residential property to the north (Parcel I6-1-60)	Control
5A-VP-5	0.33 (Average)	2.6	MassDFW	Accessible via private residential property to the north (Parcel I6-1-60)	Control

Vernal Pool ID	Area (acres)[1]	Total PCB SWAC (0–1 foot; mg/kg)	Parcel Owner	Accessibility	Pool Type
5A-VP-10	0.17 (Small)	6.2	MassDFW	Accessible via easement to the south (EA 4)	Control
5A-VP-21	1.65 (Large)	3.1	Private (Parcel J5-2-5)	Accessible from Holmes Road	Control
5A-VP-26	0.08 (Small)	3.4	Private (Parcel J5-2-11)	Accessible via easement to the east (EA 12)	Control
5A-VP-55	0.25 (Average)	25	MassDFW	Accessible via easement to the west (EA 12)	Control
5A-VP-61	0.26 (Average)	2.2	MassDFW	Accessible from the river or via property to the west or south	Control

Note:

1. The average size of the confirmed vernal pools in Reach 5A is approximately 0.36 acre; a pool was defined as "average" in size if its size was within 50% of this average value. Pools that are larger or smaller are identified as "large" or "small."

1.4.2 Control Pools

Seven control pools were selected in the Initial Pilot Work Plan to monitor vernal pool conditions before, during, and after remediation to differentiate changes that may occur in vernal pool ecology because of remediation from changes that may occur naturally. The selection of these pools was based on proximity to the test pools and existing background data to consider pools with similar characteristics as those described in Section 1.4.1 for the test pools. These control pools have a slightly lower range of PCB SWACs than the test pools; the PCB SWACs in the control pools range from 2.2 to 25 mg/kg, whereas those in the test pools range from 6.1 to 44 mg/kg (see Table 1-3). For that reason, EPA's September 12, 2023, conditional approval letter directed GE to consider replacing one control pool with a pool with a higher PCB concentration or adding such a pool to evaluate the potential impact of the higher PCB concentrations. In response to this directive, GE reviewed and considered vernal pools with higher PCB SWACs as potential control pools. However, based on that review, GE determined not to add any such vernal pools as control pools due to considerations other than PCB SWAC concentrations. Specifically, the remaining vernal pools within Reach 5A with higher PCB SWACs did not meet one or more of the other criteria for selection for the pilot study (as described in Section 1.4.1) and were deemed inappropriate for use as study controls. Therefore, the same seven pools listed as control pools in the Initial Pilot Work Plan were retained as control pools, as listed in Table 1-3 and shown on Figure 1-1.[6] Those selected control pools capture

[6] As noted, these seven pools will serve as controls for the purposes of the pilot study. However, as shown in Table 1-3, four of these seven control pools have a total PCB SWAC greater than 3.3 mg/kg and will, therefore, be subject to future remediation after the pilot study results are evaluated and approved by EPA. The scope of remediation in those pools will be presented in an addendum to the Final RD/RA Work Plan for Reach 5A, as described in Section 9.

a range of PCB SWACs, are easily accessible, do not include Core Area 1 habitat, and have predictable vernal pool hydrology.

The seven pools selected as control pools are classified as certifiable vernal pools based on containing obligate vernal pool species. As shown on Figure 1-1, all but one control pool was selected based upon its proximity to test pools. For example, six of the selected test pools are upstream of the Pomeroy Avenue Bridge (three subject to excavation/restoration and three subject to placement of an amendment). Three of the seven control pools were selected within this same portion of the floodplain (5A-VP-3, 5A-VP-5, and 5A-VP-10), all within the contiguous transitional floodplain forest that encompasses this area. These pools were selected as control pools to provide information on undisturbed breeding activity within this contiguous floodplain area (which may comprise a network of vernal pools) to compare with observations of such activity within the six test pools in this same area. Similarly, three additional control pools were selected downstream of Holmes Road (5A-VP-21, 5A-VP-26, and 5A-VP-55) based on their proximity to the test pools in that area (Figure 1-1). One additional control pool (5A-VP-61), located relatively far from any of the test pools, was selected to provide information on vernal pool breeding activity in a location that is unlikely to be impacted by activities associated with treatment during the pilot study (Figure 1-1).

1.5 Pilot Study Objective

The principal objective of the vernal pool pilot study is to evaluate the effectiveness and potential adverse impacts of removal-based and amendment-based remediation of the pools to facilitate the selection of an appropriate remedial approach for the remaining vernal pools in Reach 5A as well as those in downstream reaches. To support achievement of this objective, the following activities were conducted prior to implementation of the pilot study itself, as described in the Revised Pilot Work Plan and discussed in Sections 2.3 and 3.3:

- Establishment of a porewater-based performance criterion that can be used to evaluate the effectiveness of the amendment-based alternative to reduce the bioavailability of PCBs to a level less than or equivalent to the bioavailability of PCBs associated with 3.3 mg/kg total PCBs in vernal pool soils; and
- Identification of ranges of amendment types, doses, and application methods that could be used to achieve the porewater-based performance criteria by conducting bench-scale treatability tests.

To further support the achievement of this objective, the following additional activities were conducted, as described in this Final Pilot Work Plan:

- Establishment of the physical, chemical, and/or ecological metrics and criteria that will be used during and after the pilot study to evaluate the effectiveness of the amendment-based and removal-based alternatives;
- Development of a monitoring program to assess the performance of the amendment-based and removal-based alternatives; and
- Finalization of the design of the pilot study to facilitate implementation of both the amendment-based and removal-based alternatives in the field, including final plans, specifications, sequencing, and schedule.

1.6 Pilot Study Design Process

As previously described in the Revised Pilot Work Plan, the pilot study design was developed using the following approach, which is graphically depicted on Figure 1-3:

- The Initial Pilot Work Plan outlined the performance criteria, described the process for selecting the amendment(s) and application requirements, identified the anticipated footprint for removal and amendment application, and described the metrics and monitoring (before, during, and after remediation) to evaluate the effectiveness of the remediation approach used. The Initial Pilot Work Plan also described the experimental design of bench-scale testing to be conducted to evaluate various amendment types, doses, and application methods.
- The Revised Pilot Work Plan incorporated revisions to address EPA's comments on the Initial Pilot Work Plan in its September 12, 2023 letter. Consistent with Section 1.6 of the Initial Pilot Work Plan, it included changes to the baseline monitoring and ecological survey program (described below) based on EPA's comments, the final experimental design for bench-scale testing of amendments, and the conceptual design of the pilot study implementation (e.g., vernal pool access, amendment applications, soil removal, transportation, disposal, and vernal pool restoration).
- This Final Pilot Work Plan: (1) presents the results of the baseline monitoring and ecological survey program; (2) documents the results of the amendment-based bench-scale testing; (3) provides the final list of the vernal pools to be included in the pilot study; (4) finalizes the experimental design of the pilot study by formally establishing the types, doses, and delivery methods for the amendment treatments; and (5) presents the final design of the pilot study implementation for both the amendment-based and removal-based alternatives, including final plans, specifications, sequencing, and schedule.

The anticipated schedule for implementation of the vernal pool pilot study is provided in Section 9.

1.7 Work Plan Organization

The remainder of this Final Pilot Work Plan is organized into the following sections:

- Section 2 establishes the removal-based, porewater, and ecological performance criteria that will be used to assess effectiveness during the pilot study.
- Section 3 presents a review of potential amendment types, amendment doses, and application methods that will be considered for use and evaluation in the pilot study. This section also summarizes the methods and results from the bench-scale study that was conducted to further understand amendment performance in a simulated vernal pool environment.
- Section 4 summarizes the baseline monitoring and ecological survey program methods and results.
- Section 5 presents the design for the vernal pool pilot study.
- Section 6 describes the contractor selection process, the Supplemental Information Package (SIP) to be submitted by GE, and project closeout.
- Section 7 describes the quality-of-life requirements and how they will be implemented during the pilot test.
- Section 8 summarizes the monitoring that will be implemented before, during, and after the pilot test construction activities.
- Section 9 presents the overall pilot study schedule and reporting schedule.

The discussions in Sections 2 through 9 are supported by various tables, figures, and appendices included in this Final Pilot Work Plan.

2 Pilot Study Performance Criteria

This section presents the performance criteria that will be used to evaluate the success of the removal-based and amendment-based vernal pool approaches during the pilot study.

2.1 Removal-Based Performance Criterion

As discussed in Section 1.2, the performance standard for vernal pools is to achieve a SWAC of 3.3 mg/kg for total PCBs in the upper one foot of soil of each pool. This standard was used to establish the pilot study design for the five pools selected for the removal-based alternative: 5A-VP-4, 5A-VP-7, 5A-VP-16, 5A-VP-52, and 5A-VP-57. PCB-containing soils will be excavated to the depth of one foot, and then backfill material will be placed to grade to achieve a post-remediation PCB SWAC equal to or less than 3.3 mg/kg in each vernal pool.

Among the five pools selected for removal, 5A-VP-7 is within Core Area 2 habitat, and 5A-VP-52 and 5A-VP-57 are within both Core Areas 2 and 3 habitats (see Figure 1-1). Best construction practices will be implemented during the pilot study to minimize potential adverse impacts from access and excavation activities in these vernal pools on species associated with these Core Area habitats, as discussed in Sections 5.3 and 5.6.[7]

2.2 Porewater Performance Criterion and Compliance Depth

As described in Section II.B.3.b.(1).(b).i of the Revised Final Permit, the treatment of vernal pools with an amendment is required to reduce the bioavailability of PCBs in the vernal pool soil "to a level less than or equivalent to the bioavailability of PCBs associated with 3.3 mg/kg total PCBs in sediment." This section presents the porewater-based performance criterion that will be used to assess whether an appropriate reduction of PCB bioavailability has been achieved within these pools.

The use of carbon-based amendments (e.g., AC) has been demonstrated to reduce PCB bioavailability in sediment and soils by sorbing PCBs so they are not present, or present in substantially reduced concentrations, in the porewater, which is considered the phase in which aquatic organisms uptake PCBs. Adding amendment to soil or sediment containing PCBs does not significantly alter the total sorbed-phase concentration measured by traditional solid-phase sample analytical techniques. Therefore, the development of a porewater-based performance criterion is needed to assess the effectiveness of the amendment as a viable remedial technology within the vernal pools.

As discussed in the Revised Pilot Work Plan and approved by EPA, a porewater-based performance criterion for the vernal pools was derived from the data produced during the site-specific wood frog

[7] As discussed above, in accordance with the Final Revised SOW, vernal pools located within Core Area 1 habitat were not selected for the pilot study.

toxicological study that established the 3.3 mg/kg total PCB performance standard, which is described in Appendix E of the *Ecological Risk Assessment for General Electric (GE)/Housatonic River Site, Rest of River* (ERA; Weston 2003). That performance criterion was established based on the observed 20% effects concentration (EC_{20}) for malformations in wood frog Phase III metamorphs (ERA Table E.4-1). The EC_{20} represents the total PCB concentration at which 20% of the Phase III metamorphs exhibited malformations attributed to PCB exposure as established using a probit analysis.[8] According to equilibrium partitioning principles (e.g., Karickhoff 1984), porewater PCB concentrations are expected to be in equilibrium with the organic carbon (OC) fraction of the soil phase PCBs; thus, an assessment of the equivalent EC_{20} on an OC-normalized PCB basis provides a means of deriving the porewater PCB performance criterion. The data used to establish a dose-response relationship between spatially weighted mean total PCB concentrations in sediment and Phase III metamorph malformations in the vernal pools tested in the wood frog study were presented on a dry weight basis in Table E.3-11 and on an OC-normalized basis in Table E.2-10 of the ERA. These data are reproduced in the following Table 2-1 for convenience. Applying the same probit analysis to the OC-normalized data from the wood frog study yields an EC_{20} for total PCBs on an OC-normalized basis of approximately 110 mg/kg OC (see Figure 2-1).

Table 2-1
Summary of Malformed Metamorphs of Wood Frogs and Sediment PCBs in Vernal Pools

Vernal Pool ID[1]	Sediment PCBs Mean (mg/kg)[2]	Sediment PCBs SWAC (mg/kg)[2]	OC-Normalized Sediment PCBs (mg/kg OC)[3]	Malformed Metamorphs (%)[2]
8-VP-1	14.5	24.6	275	66.7
18-VP-2	6.05	4.9	127	26.9
23b-VP-1	0.19	0.21	2.49	4.9
23b-VP-2	0.11	0.3	1.24	5.9
38-VP-1	28	28.5	430	41
38-VP-2	62	32.3	675	51.5
46-VP-1	0.5	0.8	4.18	8.6
46-VP-5	2.18	0.7	72.6	9.2

Notes:

1. These are vernal pool IDs used in the ERA (Weston 2003), which are different from the current vernal pool IDs.
2. Values from Table E.3-11 of Appendix E to the ERA.
3. Values from Table E.2-10 of Appendix E to the ERA.

A total PCB porewater performance criterion was calculated from the OC-normalized removal-based performance criterion of 110 mg/kg OC and a site-specific partitioning coefficient (i.e., organic

[8] A probit model was fit to the study data based on transforming the percent malformation values by the probit transformation and the concentration variable by log10 transformation before fitting a linear relationship to the data (Weston 2003).

carbon-porewater partitioning coefficient [K_{OC}]) for total PCBs using Equation 1. As described in Appendix C, a site-specific log K_{OC} value of 6.4 was calculated from paired vernal pool soil and porewater data collected during baseline monitoring (see Section 4), which is consistent with the calculated log K_{OC} for in-river sediments as described in the *Conceptual Remedial Design/Remedial Action Work Plan for Reach 5A* (Reach 5A Conceptual RD/RA Work Plan; Anchor QEA et al. 2023). Using Equation 1, the total PCB porewater performance criterion is 4×10^{-5} mg per liter (L; or 40 nanograms [ng] per L).

Equation 1

$$PC_{PW} = \mathrm{PC}_{S-OC} / K_{OC}$$

where:

PC_{PW}	=	The porewater performance criterion (mg/L)
PC_{S-OC}	=	The OC-normalized removal-based performance criterion (100 mg/kg OC total PCBs in soil)
K_{OC}	=	The site-specific OC partition coefficient (L/kg)

The appropriate depth over which to apply the porewater performance criterion will be evaluated as part of the pilot study. Following surface application of the amendment, it is expected that the amendment will be incorporated into the sediment over time via natural processes such as bioturbation as well as via burial due to new sediment and leaf litter deposition. Site-specific evaluations of natural deposition and bioturbation rates and their effect on AC mixing and resultant restoration timeframes are important design factors in developing an appropriate site-specific in-situ treatment strategy (Patmont et al. 2014). Rates of natural deposition and bioturbation-induced mixing of AC into the biologically active zone have been shown to vary widely in different environments. For example, in sediment environments, surface sediment bioturbation rates have been shown to vary more than two orders of magnitude in different environments, with relatively lower rates in wetlands and offshore sediments and relatively higher rates in productive estuaries and lakes (Patmont et al. 2014). Examples of AC mixing depths measured over time include the following:

- **Berry's Creek Marsh:** Minimal powdered activated carbon (PAC) mixing observed below 4 or 5 centimeters (cm) after three years (Sanders et al. 2021)
- **Aberdeen (Canal Creek) Marsh:** Minimal PAC mixing observed below 5 cm observed after 0.8 years; some mixing to 5 to 10 cm observed after six years (Bridges et al. 2020)
- **Grasse River:** Significant granular activated carbon (GAC) mixing observed to depths ranging from 7.5 to 15 cm after two years (Bridges et al. 2020)

Vernal pools are unique systems, and no prior studies documenting measurements of mixing depths in vernal pools have been identified.

The purpose of in-situ treatment with carbon amendment is to reduce the bioavailability of PCBs in porewater to achieve the porewater-based performance criterion, which was derived to be protective of amphibians based on toxicity studies of wood frog Phase III metamorphs. The depth over which the performance criterion is applied should be consistent with the depth over which the organisms to be protected may be exposed. Measurements of PAC mixing depths over time will be made to further evaluate the appropriate depth over which the porewater criterion should be applied, as discussed in Section 8.2.2.1. Since the mixing is primarily a result of bioturbation, the observed mixing depths will be indicative of the depth of biological exposure and, therefore, will be used to develop the appropriate depth over which the porewater criterion will be applied.

2.3 Ecological Performance Criterion

Both the removal-based and amendment-based remediation will also be evaluated based on their potential adverse ecological impacts. As indicated in Section II.B.3.b.(2)(e) of the Revised Final Permit, the criterion for success and the means of assessing the ecological effects of these alternatives are to be based on comparisons of pre-remediation and post-remediation conditions. To accomplish this, the selection of parameters to be evaluated must consider the availability of background data and the natural variability in vernal pool dynamics that occurs within and among years. These considerations indicate that the ecological performance criterion should be based on a relatively basic set of parameters that are amenable to being designed, controlled, and managed and that can be readily documented and compared with pre-remediation conditions while considering the contemporaneous dynamics as represented through monitoring of the control pools.

Given these considerations, as provided in the Revised Pilot Work Plan and approved by EPA, the overall ecological performance criterion for evaluating the impacts of amendment application or removal and restoration activities on vernal pool environments is that the remediation should not adversely affect the physical characteristics of the vernal pools so as to prevent their continued viability as vernal pools. Comparison of post-remediation results from the test pools to those from the control pools will be used to assess whether any observed deviations from pre-remediation conditions are a result of the remedial activities or natural year-to-year variation.

As discussed in Section 8 and detailed in Appendix I, numerous field parameters will be measured or monitored in both the test and the control vernal pools prior to and after the amendment and removal/restoration work is completed to assess potential ecological impacts of the remediation. Those parameters include pool hydrology, the presence of amphibian egg masses and fairy shrimp, amphibian larval development and recruitment, macroinvertebrate community structure, vegetative plant community, general water quality, soil chemistry, and other physical features of the pools.

Evaluation of achievement of the above-stated ecological performance criterion will focus on the parameters that are relevant to that criterion. More specifically, as described in the Revised Pilot Work Plan, this performance criterion will be evaluated by assessing the physical conditions of the restored pools relative to each pool's pre-remediation condition and by conducting within-year comparisons to control pools that have similar pre-remediation physical and biological conditions. Comparisons will consider the key physical parameters that are recognized as determining vernal pool viability, including the following:

- Spring/early summer temporary flooding for a duration sufficient to allow obligate vernal pool species (obligate amphibians or fairy shrimp) to carry through their breeding cycle (i.e., through metamorphosis and emigration from pools into the adjacent landscape), typically 75 to 150 days during years of relatively normal precipitation (e.g., flooded conditions from mid-March through July for wood frogs and spotted salamanders);
- Lack of surface inlets or outlets that would provide surface water conduits for predatory fish to access the pool; and
- Availability of habitat features that indicate development of primary productivity/food sources and provide refuge for developing larvae and egg attachment sites for adult amphibians (e.g., vegetative growth, well developed leaf-litter/duff layer, and presence of coarse and fine woody debris).

3 Bench-Scale Testing

This section first summarizes existing information from the technical literature and professional experience on amendment types, doses, and application methods. It then discusses the amendment types, doses, and application method that were evaluated through bench-scale testing to select the appropriate form, dose, and delivery method needed to achieve the porewater-based performance criterion described in Section 2.2. Finally, this section details the experimental design and results of the bench-scale testing, including the recommended amendment and application rate.

3.1 Amendment Selection for Bench-Scale Testing

3.1.1 Literature Review

This section, which is taken from the similar section in the Revised Pilot Work Plan, provides a focused review of the technical peer-reviewed literature on amendment types, doses, and application methods used to control the bioavailability of hydrophobic organic compounds, such as PCBs, within soils and aquatic sediments.

3.1.1.1 Amendment Types

Selection of appropriate amendment types to treat PCB contamination in vernal pools is centered on optimizing the efficacy of reducing porewater PCB concentrations, ecosystem response, cost, commercial availability, and long-term sustainability of the targeted porewater PCB concentration reductions.

3.1.1.1.1 PCB Sequestration

In-situ remediation of PCB-containing soil and sediment is typically performed with a carbonaceous amendment such as AC or biochar. These amendments have been shown through many bench, pilot, and field-scale applications to effectively reduce bioavailable concentrations of PCBs (e.g., Bridges et al. 2020; Patmont et al. 2014; Ghosh et al. 2011; Fagervold et al. 2010). Carbonaceous amendments are particularly effective at reducing bioavailability of PCBs due to the large surface area that is a result of the amendments' extensive pore network. Addition of these carbonaceous amendments can produce reductions in porewater PCB concentrations of up to 99% in sediments and soils (Bridges et al. 2020; Patmont et al. 2014; Ghosh et al. 2011; ESTCP 2014). Uptake of PCBs by carbonaceous amendments is generally controlled by the internal pore structure of the amendment, with ACs typically providing reductions of PCB bioavailability by one or more orders of magnitude greater than natural organic matter (Gomez-Eyles et al. 2013). The highly porous structure of an AC is produced by randomly oriented graphite stacks that are produced from thermal and chemical activation of coal-based (bituminous or lignite) or coconut shell-based feedstock. Coal- and coconut shell-based ACs have become the predominant source for ACs used for in-situ sediment and soil

remediation because of their highly porous structure and even distribution of pore sizes (small and large pore sizes) (Abel et al. 2017).

Typically, one of three types of carbonaceous amendments is used for the in-situ remediation of PCB-containing sediments and soils: (1) PAC; (2) GAC; or (3) biochar. ACs can be manufactured in a wide range of particle sizes but are typically divided into two categories: (1) GAC, defined as AC particle sizes greater than 180 micrometers (µm) (commercially available GAC products are typically between 420 and 840 µm); and (2) PAC, defined as AC particle sizes smaller than 180 µm (commercially available PAC products are typically between 44 and 74 µm). Typically, PAC provides faster uptake and greater overall reductions in bioavailability than GAC, due to the higher surface area to volume ratio and shorter particle pore scale diffusion distances (Shen et al. 2023; Choi et al. 2013; Zimmerman et al. 2005). Impacts from pore space blocking and competitive sorption have a larger effect on GAC because a greater proportion of the surface area is located within the internal pore spaces in GAC than PAC.

Activated biochars are produced from thermal and chemical activation of biomass, such as wood chips, nut shells, or poultry litter. Activated biochars, while commercially available, are not commercially produced for PCB sequestration, and the performance of biochar can vary widely based on the type of biomass used (Gomez-Eyles et al. 2013). In addition to variability in performance, activated biochars have lower density and settling rates than AC, which presents engineering challenges to be considered for effective application in sediment environments and stability in soil and sediment environments. Because of these limitations, biochars are rarely used for in-situ PCB remediation. However, biochars were retained for further consideration because of their use in improving soil productivity (Lehmann and Joseph 2009), as discussed further in Section 3.1.1.1.2.

3.1.1.1.2 Ecological Impacts

Literature investigating the ecological impacts associated with AC applications to sediment environments has focused on quantifying the impact on benthic invertebrates. There is general consensus that the application of AC is not acutely toxic to benthic invertebrates (Ramo et al. 2021; Lillicrap et al. 2015; Jansen and Beckingham 2013). AC has been classified as a potential physical or mechanical stressor leading to a reduction in growth and changes in behavior (Lillicrap et al. 2015), but the magnitude of these ecological impacts is highly dependent on the following factors: species present, sediment characteristics, AC particulate size, and in-situ AC dose.

Ecological impacts on benthic and terrestrial organisms vary by species; typically, the lower trophic-level sediment-dwelling organisms, such as *Lumbriculus varigatus, Chironomus riparius,* and *Arenicola marina* species, experience the most extensive impacts. Adverse effects, such as reduced growth, biomass, and emergence rate or lower feeding rates, are typically observed during laboratory exposures. However, field-scale studies have produced contradictory results, with some

measuring reduced species richness, abundance, and biomass following AC placement (Beckingham et al. 2013; Jansen and Beckingham 2013; Kupryianchyk et al. 2012a, 2012b; Cornelissen et al. 2011) and others showing little to no observable impact following AC placement (Janssen et al. 2013; Cho et al. 2009).

Community-level effects in field-scale studies typically show less pronounced effects than observed in the laboratory due to recolonization by organisms from areas outside the AC application and dilution of the AC amendment (Rakowska et al. 2012). Dilution can occur in field applications where loading of organic matter and nutrients from nearby habitats provides supplemental food sources for the impacted organisms and the impact of adverse effects can be ameliorated.

In field-scale studies, AC particle size can potentially impact benthic invertebrates such as worms that feed directly on sediment or soil (e.g., *Neathes arenaceodentata*, a marine polychaete worm). Janssen et al. (2011) investigated the effect of various particle sizes of AC—non-ingestible coarse (600 to 1,000 µm), ingestible (180 to 350 µm), and fine (45 µm)—on *Neathes arenaceodentata* growth and survival. In general, sediment type, AC dose, and AC particle size did not significantly impact survival rates in PCB-contaminated sediment. However, exposure to untreated PCB-contaminated sediments and sediment amended with 20% non-ingestible coarse AC particles resulted in significant organism weight loss. Ingestible medium-sized AC and non-ingestible coarse AC amendments did not result in statistically significant differences in organism weight loss. The study concluded that organism health decline in sediment may be attributed to general starvation resulting from AC binding of nutrients rather than to AC exposure. Overall, in this study, sediment type, AC dose, and AC particle size did not significantly impact survival rates in PCB-contaminated sediment.

While activated biochars have not been studied as extensively as ACs, the available literature suggests they do not produce the same type or level of adverse ecological impacts when amended at the same or greater dose as AC (Gomez-Eyles and Ghosh 2013; Erikson 2016). Therefore, biochars are typically viewed as useful soil amendments because of their use for improving soil productivity (Lehmann and Joseph 2009).

The placement of any material (AC or otherwise) in a vernal pool has the potential to impact vernal pool function, particularly hydrology. The addition of a layer of material to a relatively shallow vernal pool could result in a biologically meaningful decrease in water depth during the breeding cycle of obligate pool-breeding species (e.g., wood frog and spotted salamander). Such a decrease in water depth could lead to higher water temperatures and a decreased hydroperiod. The latter could result in air exposure or desiccation of egg masses prior to hatching or dewatering of the pool before amphibian larvae complete their metamorphosis.

Moreover, the addition of AC to the pools has the potential to increase the pH of overlying water (Bonaglia et al. 2019; Jonker et al. 2009) and induce AC avoidance behavior in benthic organisms

(Ramo et al. 2021). However, benthic organisms have shown no observable avoidance behavior in a number of laboratory studies of AC-amended sediments (Janssen and Beckingham 2013; Jonker et al. 2009; Kupryianchyk et al. 2011).

3.1.1.2 Amendment Dose

The ability for AC or biochar to reduce porewater PCB concentrations in sediment or soil depends on the rate of mass transfer from porewater to the AC or biochar particles and on the amount of amendment per unit mass of sediment (i.e., dose). Desorption of a contaminant from sediment is limited by diffusive mass transfer along the porous AC structure. Over periods of months or years, adsorption of hydrophobic organic compounds, such as PCBs to AC, may be kinetically limited by slow diffusion toward the AC particle center. To combat this rate-limiting factor, increasing the dosage (or number of AC particles) directly increases the mass-transfer rate by providing a greater amount of potential binding sites. When applied at the optimized dose (often similar to the native TOC content), porewater concentrations and bioavailability of PCBs can be reduced by 70% to 99% (Bridges et al. 2020; Patmont et al. 2014; Ghosh et al. 2011; ESTCP 2014). Additionally, the sequestration of PCBs by AC or biochar often becomes more effective over time, typically within a matter of months, due to progressive mass transfer (i.e., mass transfer within the AC particle) (Millward et al. 2005; Zimmerman et al. 2005; Werner et al. 2006; Sun et al. 2009; Ghosh et al. 2011; Cho et al. 2012).

Both field and laboratory studies show that AC doses ranging from 1.7% to 4% of sediment or soil dry weight reduce release of PCBs from sediment or soil into the aqueous phase by 74% to 99% over approximately 18 months (Piuly and Ghosh 2011; Abel et al. 2017). AC doses calculated through modeled porewater reductions generally overpredict actual reductions in porewater concentrations. This bias can be attributed to natural organic matter blocking sorption sites not accounted for in the sorption models (Gomez-Eyles et al. 2013). This competitive sorption of AC binding sites has a much larger effect on GAC than on PAC because GAC relies on intraparticle diffusion because of its higher internal pore space as compared to PAC. Because of this, the relative composition of organic matter (including natural organic matter and dissolved OC) within the vernal pools and the type of amendment being used must be considered when designing the amendment dose.

Higher amendment doses can have an adverse impact on benthic organisms but, depending on site-specific factors, may result in minimal additional reduction in PCB bioaccumulation. For example, one controlled laboratory study did not show statistically significant additional reductions in PCB bioaccumulation in a case where the AC dose was doubled (Abel et al. 2017); this was attributed to the lower dose providing sufficient binding sites for the level of PCB contamination. To avoid unnecessary ecological impacts, AC or biochar dosages should be tested in a bench-scale setting to determine the minimum dose required to reduce porewater PCB concentrations to an appropriate level to achieve the porewater performance criterion (Section 2.2). As noted previously, activated

biochars do not produce the same type or level of adverse ecological impacts when amended to soils or sediments, so activated biochars are typically applied at higher doses than AC.

3.1.1.3 Application Methods

Studies have examined the cost and benefits of several methods of amendment application to reduce contaminant concentration in porewater and bioaccumulation. These methods generally fall under two categories: placement and mixing.

3.1.1.3.1 Placement

Placement of an amendment can be made in a thin layer or in a thicker layer combined with sand, clay, or topsoil. Thin-layer placement is a less laborious AC or biochar application method than direct mixing but typically requires a higher dose of amendment and a longer duration to achieve performance criteria. The latter is because this method relies on organisms to mix the amendment deeper into the vernal pool soils to provide enough PCB sorption to achieve the required degree of porewater concentration reduction. Thin-layer placement is expected to be the least impactful application method for both vernal pool flora and fauna because it replaces the surface with a thin layer (typically about two inches) of amendment material. Hence, the risk of amendment loss due to wind drift and other uncontrolled variables in the environment is higher than in methods involving the mixing of the amendment with surface soils or a delivery matrix prior to placement. Thin-layer placement creates a longer diffusion pathway for contaminants in deeper sediment layers and allows for additional factors, such as AC weathering or sorption of natural organic matter, to reduce the effectiveness of the AC or biochar over time. Although natural processes such as bioturbation can aid thin-layer placement in mixing with deeper layers, these processes are much slower than physical mixing (see ESTCP 2014, discussed in the next paragraph).

In-situ application of AC to a wetland was investigated as part of the Canal Creek, Aberdeen Proving Ground project in Aberdeen, Maryland (ESTCP 2014). This project involved pilot-scale placement of three AC delivery systems, two pelletized AC products (AquaBlok and SediMite™) and an AC slurry. The results were also compared to an engineered manufactured soil cover system and an untreated control. The goal of the project was to evaluate which system performed best at reducing porewater PCB concentrations and bioavailability in the wetland soils. Overall, the AC-treated wetland soils showed reductions in PCB bioavailability, with porewater reductions observed in 80% of soils during at least one post-treatment sampling event. However, due to the lack of strong statistically significant relationships between AC treatment and reductions in PCB bioavailability in porewater and tissue, the study reported that the findings were not conclusive in demonstrating effective reductions in bioavailability. The study identified the following as potential confounding issues: PCB heterogeneity in the field, small sample sizes, the short period of post-application monitoring, and the unexpectedly slow mixing of the placed carbon with the underlying contaminated sediments, as

well as the overall design of the sampling and monitoring program to measure PCB sequestration in situ.

The placement of a thicker layer (typically about six inches) of AC or biochar mixed with sand, clay, or topsoil is an alternative to thin-layer placement. The thicker placement layer (analogous to a cap) provides a new clean surface, and the homogenously mixed amendment allows for contaminant sequestration as the PCBs diffuse up through the placement layer. Because AC retains remediation efficiency for many years after placement, the effectiveness of the AC or biochar amendment often increases over time due to progressive mass transfer (Millward et al. 2005; Zimmerman et al. 2005; Werner et al. 2006; Sun et al. 2009; Ghosh et al. 2011; Cho et al. 2012). However, the placement of amendments in a thicker layer of material can undesirably alter the topography of the treated area and smother existing flora and fauna, requiring recolonization. As discussed in Section 3.1.1.2, placement of such a layer in relatively shallow vernal pools could also result in a decrease in water depth during the breeding cycle of obligate pool-breeding species, potentially leading to higher water temperatures and a decreased hydroperiod. The latter, in turn, could result in air exposure and desiccation of egg masses prior to hatching or dewatering of the pool before amphibian larvae complete their metamorphosis. During the pilot study, as discussed in Section 8, these potential effects will be evaluated through monitoring of water depths and hydroperiod in the target and control vernal pools, along with consideration of a variety of natural factors that affect vernal pool hydrology, including water depths and the duration of flooding.

3.1.1.3.2 Mixing

Mixing directly incorporates the AC or biochar amendment into the surficial soil or sediment layers, typically the top 0.5 to 1.0 feet. This enhanced contact between the amendment and the PCB-containing soils accelerates the reduction of porewater PCB concentrations relative to that which may occur naturally through bioturbation alone (Rakowska et al. 2012). AC amendments mixed into the surface sediments provide greater contaminant-binding efficiency due to the homogeneity of AC particle distribution than the same amount of AC placed in a thin layer above the sediment (Abel et al. 2017).

In one study, rototillers, tine sleds, and trim pipes used to facilitate mixing in a tidal mudflat environment improved the efficacy of in-situ AC amendment, such that AC levels retained in sediment after five years were comparable to the original target dose (Cho et al. 2009). Measurements of bioavailable PCB during this study showed that using a one-time, 30-minute mixing event reduced porewater PCB concentrations by more than 50% compared to a static application. However, such high-energy mixing events can disturb flora or fauna habitat within the mixing zone. In such instances, recovery of the ecological system relies on recolonization or replanting to establish habitat functions after construction. However, in many cases, recolonization can be rapid. Indeed, in two field studies where AC was directly mixed into the surface sediment,

most species recovered via recolonization within months following remedial treatment (Cho et al. 2012; Abel et al. 2017).

3.1.2 Selected Amendment Types, Doses, and Application Method for Bench-Scale Testing

Carbon-based amendments are the primary means of reducing bioavailability of PCB in both sediment and soil environments. ACs are the most widely used for in-situ sediment and soil sequestration amendment worldwide and have successfully reduced bioavailable concentrations of PCB in wetland environments considered similar to the vernal pools (Patmont et al. 2014). Consequently, both PAC and GAC were retained for further study during bench-scale testing. Additionally, biochar has been shown to reduce PCB bioavailability at the laboratory and pilot scale but has not been implemented as a full-scale remedy (Denyes et al. 2013; Gomez-Eyles et al. 2013). Considering its beneficial impact on soil quality, biochar was also retained for bench-scale testing.

Typical AC applications target an in-situ dose between 1% and 10% by dry weight in field settings, although field trials and experimental studies suggest that potential negative ecological effects can be minimized by maintaining finer-grained AC doses below approximately 5% (Patmont et al. 2014). As a result, as specified in the Revised Pilot Work Plan and approved by EPA, PAC was tested at doses of 1%, 2%, and 5% by dry weight, and GAC was tested at doses of 2% and 5% by dry weight. Activated biochars do not produce the same type or level of adverse ecological impacts when amended to soils or sediments and, therefore, can be applied at higher doses. Because of this, activated biochars were tested at the bench scale at 5% and 10% by dry weight.

Finally, application methods using both placement and mixing were retained for bench-scale testing. For both application methods, a maximum of six inches of an amended layer (i.e., either six inches of mixed sand and AC, or of AC physically mixed into the surficial six inches of soil) was used in the bench-scale tests. This depth is less than the surficial 12-inch layer used to identify vernal pool areas exceeding the PCB performance standard of 3.3 mg/kg. The six-inch depth was selected, with EPA approval, to minimize the potential undesirable impacts that a thicker (12-inch depth) amended layer may have on existing flora and fauna, although a 12-inch layer would be expected to provide a nominal additional increase in PCB sequestration relative to the six-inch layer.

3.2 Bench-Scale Testing

The specific data quality objectives (DQOs) for the bench-scale testing that was performed in support of the vernal pool pilot study were as follows:

DQO 1. Provide data to evaluate the effectiveness of biochar, as compared to AC, to sequester porewater PCBs in vernal pool soils.

DQO 2. Provide data to determine the minimum effective AC (GAC and PAC) or biochar dose needed to achieve the porewater performance criterion.

DQO 3. Compare the effectiveness of different placement methods, including thin-layer placement, amended cover placement (AC and sand mixture), and mixing.

DQO 4. Provide data to evaluate the time to achieve the porewater performance criterion.

Comparison of the effectiveness of amendments and the identification of a minimum effective dose (DQO 1 and DQO 2) was evaluated through bench-scale jar testing in which site soils were amended with AC or biochar at specific doses. Soil porewater PCB concentrations measured using passive samplers were used to assess achievement of the porewater performance criterion. The comparison of different placement methods (DQO 3) and the time required to achieve the porewater performance criterion (DQO 4) were evaluated using bench-scale column tests (instead of jar tests) because these tests provide a means to simulate anticipated in-situ conditions within the vernal pools, including the impact of drying and wetting on mass-transfer kinetics. The bench-scale jar and column tests are summarized in Sections 3.2.1 and 3.2.2, respectively, and discussed in detail in the *Bench-Scale Treatability Testing Summary Report* provided in Appendix B.

The vernal pools soils used in the bench-scale jar and column tests were collected from vernal pools within Reach 5A. As described in the Revised Pilot Work Plan, vernal pool soils were initially collected from the five vernal pools selected for amendment-based treatment; however, as described in Appendix B, PCB Aroclor results for those initial samples were generally low and did not capture the full range of PCB concentrations that had been observed previously in those vernal pools, as reported in the *Second Revised Pre-Design Investigation Work Plan for Reach 5A Non-Residential Floodplain Exposure Areas* (Anchor QEA 2021). Therefore, in an attempt to collect soil samples with higher concentrations, GE remobilized to other vernal pool sampling locations that previously had some of the highest concentrations observed in Reach 5A. Additional details on the collection and processing of vernal pool soils used for bench-scale testing are provided in Appendix B. The vernal pools and locations sampled are listed in Table 3-1 and shown on Figures 3-1 through 3-9.

As indicated in Table 3-1, samples VP12-B-C-1/2-BST (from pool 5A-VP-12) and VP81-G-10-11-BST (from pool 5A-VP-81) were selected for bench-scale testing. This selection was proposed to EPA in an email dated January 12, 2024, and EPA approved that selection in an email dated January 16, 2024. Accordingly, soil samples from both 5A-VP-12 and 5A-VP-81 were used for the bench-scale jar and column testing.

Table 3-1
Vernal Pool Soil Sampling Matrix

Vernal Pool ID	Location ID	Total PCB Aroclors (mg/kg)	TOC (mg/kg)	Selected for Bench-Scale Testing	Total PCB Congeners (mg/kg)
First Mobilization (October 2023)					
5A-VP-9	VP9-X-Y-16-BST	4.97	46,100	—	30.0
	VP9-X-14-BST	2.21	41,100	—	—
	VP9-V-W-14-BST	3.60	39,200	—	—
5A-VP-12	VP12-B-C-1/2-BST	4.17	34,000	○	34.0
	VP12-V-2/3-1-BST	2.93	38,500	—	—
5A-VP-15	VP15-H-12-BST	5.43	38,500	—	—
	VP15-I-15-BST	6.85	47,900	—	—
5A-VP-22	VP22-B-4-5-BST	2.54	19,200	—	—
	VP22-D-3-BST	2.73	34,500	—	—
5A-VP-27	VP27-F-5-BST	1.16	28,800	—	—
Second Mobilization (December 2023)					
5A-VP-9	VP9-X-Y-16-BST-2	9.20	38,000	—	—
	VP9-X-14-BST-2	2.90	32,300	—	—
5A-VP-35	VP35-I-9-BST	10.0	32,300	—	—
	VP35-J-9-10-BST	15.0	28,500	—	—
5A-VP-40	VP40-Q-6-7-BST	8.00	38,800	—	—
	VP40-R-6-7-BST	4.20	22,200	—	34.0
5A-VP-81	VP81-G-10-11-BST	19.0	26,000	○	26.0
	VP81-G-11-BST	11.0	47,400	—	—

Notes:
— : not selected for bench-scale testing
○ : selected for bench-scale testing

As shown in Table 3-1, the PCB Aroclor concentrations in samples collected from 5A-VP-12 and 5A-VP-81 were 4.2 and 19.0 mg/kg, respectively. These two samples were selected because they represent: (1) a relatively low concentration that is still above the vernal pool performance standard of 3.3 mg/kg; and (2) the maximum soil PCB Aroclor concentration collected as part of the bench-scale testing sampling effort. Prior to initiating the bench-scale tests, separate aliquots of soil from these samples were submitted for PCB congener analysis. The PCB congener results were considerably different from the corresponding PCB Aroclor concentrations, as shown in Table 3-1. For that reason, these same aliquots were also re-analyzed for PCB Aroclors. The results of that re-analysis were found to differ from the original PCB Aroclor analysis and were more in line with typical analytical differences between Aroclor and congener PCB analytical methods, as discussed in Appendix B. These differences indicated that, despite best efforts to completely mix and homogenize

these soils for the bench-scale testing, small-scale heterogeneity exists within the larger homogenized volume. To account for that observed heterogeneity, the following modifications were made to the bench-scale testing design described in the Revised Pilot Work Plan:

- For the jar testing, baseline sampling of unamended soils was performed for all jars prior to adding amendments. This allowed for a jar-specific comparison when determining the effectiveness of each amendment.
- For the column testing, baseline sampling of unamended soils was performed for each column prior to adding amendments. This was performed in the 5A-VP-81 columns. However, it was not possible to obtain a pre-treatment baseline for 5A-VP-12 because the soils had already been amended prior to identifying the issue related to soil heterogeneity.

3.2.1 Bench-Scale Jar Testing Design and Results

The objective of the bench-scale jar testing was to evaluate the effectiveness of AC (both PAC and GAC) and biochar in reducing porewater PCB concentrations in vernal pool soils. To assess effectiveness, an initial (pre-treatment) porewater measurement of the vernal pool soil was performed in each sample jar using solid-phase microextraction (SPME) passive samplers. Following this initial measurement, varying doses of AC (both PAC and GAC) and biochar were mixed into the soils (for a period of 30 days), and a second (post-treatment) porewater measurement was performed on the amended soils. The effectiveness of the amendment was evaluated by assessing the percentage reduction from pre-treatment to post-treatment and determining which amendments reduced the porewater concentration below the porewater performance criterion of 40 ng/L (described in Section 2.2). The jar testing results are summarized as follows, and a more detailed description of the testing methods and results is provided in Appendix B.

Table 3-2 presents the results of the bench-scale jar testing. The unamended baseline porewater samples for 5A-VP-12 ranged from 392 to 584 ng/L, with an average of 518 ng/L (n = 24), and samples from 5A-VP-81 ranged from 236 to 431 ng/L, with an average of 304 ng/L (n = 24). All unamended porewater concentrations exceeded the 40 ng/L performance criterion. After the addition of amendment, porewater concentrations were reduced significantly in all jars. Percent reductions ranged from approximately 60% (5A-VP-81 soil with 2% GAC) to 99.99% (5A-VP-12 and 5A-VP-81 soils with 5% PAC). All amendment and dose combinations were able to reduce porewater concentrations below the 40 ng/L performance criterion except for the 2% GAC and 5% biochar jar tests. In general, PAC performed best among the three amendments at reducing porewater concentrations with all three dosages (i.e., 1%, 2%, and 5%) reducing porewater concentrations below the porewater performance criterion.

Table 3-2
Vernal Pool Bench-Scale Jar Test Experimental Design and Results

Vernal Pool ID	Amendment Type and Dose	Average Porewater PCB Congener Concentration (ng/L)		% Reduction
		Pre-Treatment	Post-Treatment	
5A-VP-12	Unamended	502	446	—
	1% (dry weight) PAC	547	12.6	97.7%
	2% (dry weight) PAC	539	2.93	99.5%
	5% (dry weight) PAC	557	0.57	99.9%
	2% (dry weight) GAC	584	41.9	92.8%
	5% (dry weight) GAC	556	6.03	98.9%
	5% activated biochar	392	59.5	82.8%
	10% activated biochar	464	13.1	97.2%
5A-VP-81	Unamended	251	392	—
	1% (dry weight) PAC	294	15.8	94.6%
	2% (dry weight) PAC	431	2.85	99.3%
	5% (dry weight) PAC	408	0.51	99.9%
	2% (dry weight) GAC	244	99	58.3%
	5% (dry weight) GAC	286	17.6	93.9%
	5% activated biochar	236	54.6	76.3%
	10% activated biochar	284	15.6	94.5%

Note:
— : not applicable

3.2.2 Bench-Scale Column Testing Design and Results

The objective of the bench-scale column testing was to evaluate the effectiveness of multiple amendment application methodologies (thin-layer placement, amended cover placement [AC and sand mixture], and mixing) and amendment performance under site-specific conditions. Also, because the amendments will be placed in vernal pools, the column test results were used to evaluate the impact of drying and wetting on mass-transfer kinetics within the near-surface soil. The effectiveness of the amendment application methodologies and the impact of drying and wetting on mass-transfer kinetics were both assessed using columns that were loaded with vernal pool soils and amendment that was added using the applicable application method being tested.

For all columns receiving amendment, PAC was selected as the carbon type due to its fast kinetics and was applied at 5% by weight in the top six inches of the column. After construction of the columns, water was added to each column to simulate the vernal pool wet cycle. After the corresponding test period, the water was drained out of the column to simulate the dry cycle of a vernal pool. These cycles were repeated until the columns had undergone two wet cycles and one

dry cycle. During each wet and dry cycle, SPME passive samplers were used to measure the porewater concentration in the top six inches of each column, and the results were compared to the baseline sample results (for 5A-VP-81) and the unamended column to evaluate the percent reduction of PCB concentrations, and the results were evaluated against the porewater performance criterion of 40 ng/L. The results are summarized as follows, and a more detailed description of the methods and results is provided in Appendix B.[9]

The results of the column tests are provided in Table 3-3. As described in Section 3.3, baseline concentrations were measured in the four columns of sample 5A-VP-81, which had an average porewater PCB concentration of 173 ng/L. The concentrations in the control columns for sample 5A-VP-81 ranged from 163 ng/L to 380 ng/L. Similarly, the 5A-VP-12 control column concentrations ranged from 206 ng/L to 391 ng/L. Following placement of amendment in each of the columns, each column produced porewater concentrations below the porewater performance criterion of 40 ng/L with the exception of the 5A-VP-12 column with thin-layer placement during the first drained cycle, which had a porewater concentration slightly above that criterion (40.1 ng/L). All other thin-layer placement measurements were below 40 ng/L. In general, the amended sand placement performed best among the three amendment application methods, with porewater concentrations less than 0.5 ng/L for each soil column and across all cycles.

In addition to the porewater measurements described above, surface water quality measurements were collected from overlying water in the columns during the testing, including temperature, pH, dissolved oxygen, hardness, and alkalinity. These surface water quality testing results were consistent across each column, including the control column. This demonstrates that these vernal pool surface water quality parameters are expected to remain unaffected by the placement of PAC within the vernal pools.

Table 3-3
Vernal Pool Column Testing PCB Congener Results

Column Testing Results					
Vernal Pool	Amendment Type	Total PCB Congeners (ng/L, U=0); Remediation Target = 40 ng/L			
		Baseline	Wet Cycle 1	Drained Cycle 1	Wet Cycle 2
VP12	None	—	289	206	391
	Amended Sand	—	0.0850	0.0230	0.0493
	Amendment Mixed into Top 15 cm	—	0.681	8.38	2.73
	Thin-Layer Placement	—	6.00	40.1	21.6

[9] The study design described in the approved Revised Pilot Work Plan included two wet cycles and one dry cycle. However, following receipt of the column testing data for those three cycles, GE opted to perform testing during a second dry cycle. The results are not yet available but will be provided to EPA, when received, in GE's monthly progress report.

Column Testing Results					
Vernal Pool	Amendment Type	Total PCB Congeners (ng/L, U=0); Remediation Target = 40 ng/L			
		Baseline	Wet Cycle 1	Drained Cycle 1	Wet Cycle 2
VP81	None	206	163	189	380
	Amended Sand	158	0.140	0.0300	0.459
	Amendment Mixed into Top 15 cm	164	0.454	6.16	4.30
	Thin-Layer Placement	165	9.69	8.01	13.1

3.3 Bench Testing Summary and Recommendations for Pilot Testing

The comparison of different amendment types and the identification of a minimum effective dose were both evaluated through the jar testing. In the jar tests, vernal pool soils were amended with AC (PAC or GAC) or biochar at a range of doses. As described in Section 3.3.1, while GAC and biochar were able to achieve porewater concentrations below 40 ng/L, they required doses of 5% and 10%, respectively. PAC was the only amendment in the jar tests that was able to reduce porewater to below 40 ng/L with all three doses (1%, 2%, and 5%). As a result, PAC is the preferred carbon type because it effectively reduced porewater concentrations to below 40 ng/L at a range of doses over the duration of the test. However, although a dose of 1% PAC was shown to reduce porewater concentrations to below 40 ng/L in the jar tests, it is not recommended for field-scale application because of the variability/heterogeneity observed in the vernal pool soil samples and the assumption there will likely be some reduction in effectiveness when going from bench-scale to field-scale application. Rather, the recommended minimum dose for field-scale pilot testing is 2% PAC.

The comparison of different application methods and the time required to achieve the porewater performance criterion were evaluated using the bench-scale column tests because these tests provide a means to simulate potential in-situ conditions within the vernal pools, including the impact of drying and wetting on mass-transfer kinetics. As discussed in Section 3.3.2, all placement methods reduced concentrations to below the porewater performance criterion of 40 ng/L (more so in wet conditions) within the first two months of testing. Therefore, all placement methodologies have been retained for further consideration in the field pilot study based on the results of this testing. Details on the selected application methods to be used in the pilot study are provided in Section 5.4.2.

4 Vernal Pool Baseline Monitoring

This section describes the baseline monitoring and ecological survey that were conducted in accordance with the Revised Pilot Work Plan prior to implementation of the pilot study. Specific DQOs for this baseline data collection were as follows:

DQO 1. Provide data on baseline (i.e., pre-treatment) soil porewater PCB concentrations in each of the five vernal pools that will be subject to treatment with an amendment.

DQO 2. Provide additional data needed to calculate vernal pool-specific OC partitioning coefficients (i.e., K_{OC}) in the five vernal pools that will be subject to treatment with an amendment.

DQO 3. Provide updated information related to ecological status of all test and control vernal pools.

Baseline monitoring and ecological survey data were collected in all vernal pools identified in Table 1-3—i.e., the 10 test and seven control pools. In the vernal pools receiving amendment-based treatment, these activities consisted of soil sampling, porewater sampling, ecological monitoring, and a topographic survey. In the vernal pools receiving removal-based treatment, the baseline activities consisted of soil sampling, ecological monitoring, and a topographic survey. In the control vernal pools, only ecological monitoring was performed. The baseline sampling and ecological survey methods and results are summarized as follows. Detailed results are provided in the *Vernal Pool Pilot Study Baseline Monitoring Report* provided in Appendix C.[10]

4.1 Baseline Sampling for PCBs

Baseline sampling in the five amendment-based test pools (5A-VP-9, 5A-VP-12, 5A-VP-15, 5A-VP-22, and 5A-VP-27) was conducted to establish the initial soil concentrations of total PCBs and TOC and porewater concentrations of PCBs in these pools prior to treatment. Specifically, bulk soil samples were collected from these five pools, and in-situ measurements of porewater PCBs were made using SPME passive samplers. The soil/porewater sampling locations were co-located with locations previously sampled in the corresponding vernal pools during the non-residential floodplain PDI, which is summarized in GE's *Pre-Design Investigation Summary Report for Reach 5A Non-Residential Floodplain Exposure Areas* (Non-Residential Floodplain PDI Report; Anchor QEA and Arcadis 2023). Prior sampling locations were reoccupied to provide the desired spatial coverage in each pool.[11] These data were also used to evaluate porewater partitioning within these pools.

[10] As discussed further in Section 4.3, some supplemental baseline monitoring will be conducted in the amendment-based pools to obtain additional information to evaluate the effectiveness of the remediation in those pools.

[11] For vernal pools with historical samples (i.e., samples collected prior to the Reach 5A PDI), some baseline samples were also co-located with the historical samples.

Detailed baseline sampling methods and results are provided in Appendix C.

4.1.1 Porewater and Soil Sampling Results

Table 4-1 presents the results of the baseline porewater and soil sampling. Porewater total PCB congener concentrations ranged from 17.9 to 1,720 ng/L across all vernal pools. On average, porewater concentrations were highest in 5A-VP-9 and lowest in 5A-VP-12. In vernal pool soils, total PCB congener concentrations ranged from 3.80 to 56.7 mg/kg, and total PCB Aroclor concentrations ranged from 0.436 to 11.3 mg/kg. TOC content of the vernal pool soil samples ranged from 3.11% to 17.0%.

Table 4-1
Baseline Sampling PCB Concentrations for Porewater and Soil

Vernal Pool	Sample ID	Total PCB Congeners		Total PCB Aroclors (mg/kg)	TOC (%)
		Porewater Concentration (ng/L, U=0)	Soil Concentration (mg/kg, U=0)		
5A-VP-9	VP9-FL000954	704	15.8	3.07	3.74
	VP9-V/W-14	284	15.3	1.39	5.02
	VP9-V-15/16	96.5	14.8	3.00	4.16
	VP9-W/X-13/14	—[1]	22.4	4.36	4.83
	VP9-W/X-16	82.4	22.6	5.21	6.98
	VP9-W-15	149	31.7	2.80	6.94
	VP9-W-17	1,720	--[2]	4.62	6.54
	VP9-X/Y-16	507	41.0	11.3	6.12
	VP9-X-13	306	18.2	4.44	5.74
	VP9-X-14	—[1]	20.7	5.68	5.43
5A-VP-12	VP12-B/C-1/2	—[1]	21.5	4.67	6.8
	VP12-B/C-4	17.9	13.0	3.47	5.42
	VP12-B-2/3	91.6	16.5	1.58	6.41
	VP12-C/D-4	—[1]	13.9	4.40	8.55
	VP12-C-3	33.2	12.7	1.91	9.36
5A-VP-15	VP15-G/H-9	61.5	13.1	4.92	7.21
	VP15-G-10	54.3	23.8	3.26	8.53
	VP15-G-11	49.2	21.4	5.94	7.84
	VP15-G-12	36.3	15.7	1.26	17
	VP15-G-13	48.0	29.9	1.76	7.85
	VP15-H-12	321	22.4	5.99	7.05
	VP15-H-14	65.2	22.6	4.27	6.94
	VP15-I-15	213	56.7	6.86	5.7

Vernal Pool	Sample ID	Total PCB Congeners		Total PCB Aroclors (mg/kg)	TOC (%)
		Porewater Concentration (ng/L, U=0)	Soil Concentration (mg/kg, U=0)		
5A-VP-22	VP22-B-4/5	106	11.2	1.16	10.2
	VP22-C-4	45.7	12.7	2.16	6.91
	VP22-D-3	33.6	3.80	0.436	7.09
	VP22-E-2	22.2	8.50	0.466	4.91
	VP22-F/G-2/3	—[1]	12.6	0.748	5.42
	VP22-F/G-3/4	303	7.40	1.31	6.96
	VP22-H-2	108	21.1	3.00	6.62
	VP22-H-3/4	70.7	8.30	1.19	5.23
	VP22-I-3	70.8	15.4	1.29	6.56
5A-VP-27	VP27-E/F-6	712	12.1	3.30	3.11
	VP27-F-4	130	7.10	1.15	5.16
	VP27-F-5	—[1]	6.70	1.52	4.59

Notes:

1. As described in Appendix C, six SPME samples (VP9-W/X-13/14, VP9-X-14, VP12-B/C-1/2, VP12-C/D-4, VP22-F/G-2/3, and VP27-F-5) were damaged during shipment from the field to the laboratory and were unable to be analyzed for porewater congener PCBs.
2. As described in Appendix C, one soil sample (VP9-W-17) was discarded following PCB Aroclor analysis before it could be sent for PCB congener analysis; therefore, this sample only has a PCB Aroclor result.

4.1.2 Development of Site-Specific PCB Partition Coefficient

The paired bulk soil and porewater total PCB concentrations summarized above were used to calculate a site-specific partition coefficient (K_{OC}) for the five amendment-based test pools. As described in Appendix C, an overall average log K_{OC} value of 6.4 was calculated for these pools. That value is relatively consistent with the total PCB log K_{OC} value of 6.2 derived from the in-river sediment porewater PCB data obtained during the Reach 5A PDI, as reported in the *Revised Pre-Design Investigation Summary Report for Reach 5A Sediment and Riverbanks*. (Anchor QEA and AECOM 2024), and is the same value that was derived from in-river sediment porewater data that were collected historically as part of a cooperative GE/EPA partitioning study conducted in 2001 (Weston 2003; BBL and QEA 2003).

4.2 Baseline Ecological Survey

Documentation of baseline ecological conditions in the 17 pilot study vernal pools (i.e., 10 test pools and seven control pools) included consolidating data collected previously from these pools and conducting updated field investigations. Previous data consolidated for this purpose included results from surveys conducted by Woodlot (2002), as well as vernal pool investigations conducted by GE between 2018 and 2022 (AECOM 2020, 2024a). Baseline ecological survey methods and results are

summarized in Section 4.2.1. A detailed discussion of methods and results is provided in Section 4 of the *Vernal Pool Pilot Study Baseline Monitoring Report* (Appendix C).

4.2.1 Baseline Ecological Survey Methods

This section describes the methods used for the baseline ecological monitoring performed in 2023 and 2024 in the 17 vernal pools selected for inclusion in the pilot study. Data collected in those pools during these surveys included an assessment of plant natural communities, pool bathymetry and hydroperiod, baseline soil and water quality parameters, and field surveys to determine breeding effort by obligate vernal pool amphibians and to assess recruitment into the local populations. The survey methods used in the baseline ecological surveys followed those described in the Vernal Pool Habitat Inventory Standard Operating Procedure (SOP) in Appendix D of the Revised Pilot Work Plan. A summary of the data collection methods, as described in Appendix C, is provided as follows:

- Additional amphibian egg mass counts and surveys for fairy shrimp presence prior to treatment was conducted within each pool during the spring of 2023 and 2024. These data were collected as early as possible during the vernal pool breeding season, considering seasonal trends documented to be occurring in the specific year of the survey.
- Dip net surveys were conducted in 2024 to monitor amphibian larval development, assess amphibian recruitment into the local population, and assess aquatic macroinvertebrate community structure within each pool. The dip net surveys for amphibian larvae and macroinvertebrates were spaced throughout the egg-deposition and larval development periods until the pool was observed dry or evidence of fully metamorphosized amphibians were documented emerging from the pool.
- A survey of the plant community within each pilot pool was conducted during July and August of 2024 using line-intercept sampling techniques as described by Barbour et al. (1999). In addition, each pool was visited up to three times throughout the growing season to obtain a thorough list of the plant species present in the pool in addition to those species accounted for in the transects.
- During the plant community surveys, the length and average width of coarse woody debris (CWD) and a percent cover estimate of fine woody debris within each pool were measured.
- Detailed topographic data were collected through traditional topographic survey methods. The topographic data were collected during the fall of 2024 and winter of 2024-2025.
- Baseline data were collected on hydroperiod and maximum flooding depths, including an assessment of surface water flooding conveyance into and out of each pool. These hydrologic data were collected during spring high-water periods (e.g., April and May) in each of 2023 and 2024 with follow-up visits throughout the summer until each pool was observed dry to document pool hydroperiod.

- Soil profile descriptions were developed, including an assessment of the underlying substrate to between three and four feet in depth (including the surface leaf-layer and organic duff layer) to understand the soil or substrate stratigraphy and the relative influence of groundwater versus surface water on the hydrology in the pools.
- Soil samples were collected and tested for basic soil chemistry and composition parameters in the vernal pools—specifically, pH, OC content, moisture content, and grain size distribution. These soil samples were collected coincident with the vegetation sampling conducted during the summer of 2024.
- Data on baseline water quality were collected, including measurements of pH, temperature, conductivity, alkalinity, hardness, turbidity and dissolved oxygen. These data were collected in 2023, 2024, and 2025.
- An assessment was conducted of habitat characteristics within the vernal pool envelope and critical terrestrial habitats as described by Calhoun and Klemens (2002) (i.e., within 0 to 100 feet and 100 to 750 feet of the pool boundary, respectively), as well as the potential for vernal pool networking.

4.2.2 Baseline Ecological Survey Results

4.2.2.1 Amphibian Breeding Surveys and Dip-Net Sweeps

Historical data on breeding activity from the early 2000s were available for seven of the pilot study pools. In addition, all 17 pools were surveyed in 2018, 13 pools were surveyed in 2019, 16 pools were surveyed in 2023, and all 17 pools were surveyed again in 2024. The results are provided in Table 4-1 of the *Vernal Pool Pilot Study Baseline Monitoring Report* (Appendix C).

As shown there, all the pilot study pools exhibited breeding activity by obligate vernal pool amphibians and/or presence of fairy shrimp during two or more of the five survey periods. Among the 17 pools, wood frog egg masses were present 38 times over the five survey periods with counts ranging from 1 to 300 egg masses per pool (mean = 47.2 egg masses). A total of 13 pools contained fairy shrimp during at least one survey period, and they typically co-occurred with other breeding amphibians. Spotted salamander egg masses were observed in only four pools over the five survey periods, and no more than two egg masses were observed at one time.

The other results from these surveys are described in Section 4.2.1 of the *Vernal Pool Pilot Study Baseline Monitoring Report* (Appendix C).

4.2.2.2 Vernal Pool Vegetation

A total of 138 plant species were identified among the 17 pilot study pools, as listed in Table 4-4 of the *Vernal Pool Pilot Study Baseline Monitoring Report* (Appendix C). The observed plant species

included 19 tree species, 19 shrub species, 95 herbaceous plant species (including forbs, ferns, grasses, and grasslike species), and five woody vine species. On average, there were 22.4 plant species observed in the amendment-based pools (ranging from 10 to 34), 27 plant species observed in the removal-based pools (ranging from 14 to 43), and 34 plant species observed in the control pools (ranging from 16 to 58). Most plant species observed within the pools (81.2%) are commonly associated with wetland habitats and have an indicator status of facultative (18.1%), facultative wetland (25.4%), or obligate (37.7%). A total of 22 (15.9%) plant species were facultative upland species or did not have an indicator status (2.9%).

4.2.2.3 Pool Geomorphology, Hydroperiod, and Physical Structure

Each of the pilot study pools can be generally described as relatively small, shallow, and flat-bottomed pools with one or two depressional areas that hold water for extended periods. The pools range in size from approximately 0.04 to 1.65 acres (with an average of 0.38 acres), with most pools (14) being less than half an acre. Six pools exhibit a defined outlet channel to the river while other pools outlet more broadly across the floodplain during periods of extreme high water (e.g., early spring floods) and/or are contiguous within a larger wetland complex. Other key observations related to these parameters include the following (discussed further in the *Vernal Pool Pilot Study Baseline Monitoring Report* [Appendix C]):

- No pools were documented to have a permanently flowing outlet.
- Average maximum water depths for the amendment-based pools, removal-based pools, and control pools, as measured in spring 2023, were 21.3, 21.4, and 15.4 inches, respectively. Water depths were generally greater in 2024, but measurements of water depth over several years indicate that spring water depths range from approximately 4 to 24 inches on average.
- The pool hydroperiod (i.e., duration of flooding within the pool basin) is relatively short for many pools on the floodplain as a result of their geomorphology, shallow depths, and direct connections to the river through well-defined drainage channels.
- CWD was observed in all but two of the pools, and where present, CWD ranged from 0.3% to 5% of the total pool area (1.3% on average). The amendment-based, removal-based, and control pools contained 0.7%, 1.6%, and 1.1% cover of CWD, respectively. Total cover of fine woody debris was visually estimated within each pool. Cover of fine woody debris was estimated at 1% to 5% within eight pools, 6% to 15% in four pools, and 16% to 25% in five pools.
- Most of the pilot study pools (11) exhibited an organic or mucky-mineral soil at the surface that ranged from 2 to 32 inches thick (average of 10 inches) and were underlain by silt loam, or very fine to fine sandy loam. In five pools, a loamy sand to coarse loamy sand texture was encountered at depths typically below 24 inches.

- Soil pH ranged from 5.7 to 6.5 (average of 6.1), and TOC ranged from 15,000 to 61,000 mg/kg (average of 37,600 mg/kg). On average, soil pH was similar among the amendment-based, removal-based, and control pools, but there was some variability in average TOC among these three groups of pools.
- Water quality parameters, including temperature, dissolved oxygen, specific conductivity and pH, were measured at least twice (and in six pools three times) in 2023-2025. In spring 2025, each pilot pool was revisited to collect data on oxidation-reduction potential, turbidity, alkalinity, and hardness. Although there was some variability observed among the amendment-based, removal-based, and control pools, these differences, on average, were minimal.
- The land surrounding the pilot study pool is mostly composed of forest, scrub-shrub, and other open space habitats (over 99% within 100 feet of the pools and an average of 87% within 100 to 750 feet of the pools), with only minimal or minor development in those areas.

4.3 Supplemental Baseline Monitoring

Supplemental baseline (pre-construction) porewater PCB data are needed in the amendment-based vernal pools to effectively evaluate the short-term and long-term effectiveness of the pilot study in those pools. The additional porewater data needed and the proposed approach to obtain those data are described in Section 4.1.1 of the *Vernal Pool Pilot Study Performance Monitoring Plan* (Appendix I).

5 Vernal Pool Pilot Study Design

This section describes the design for the pilot test construction activities to be implemented, which generally consist of removal and backfilling in the removal-based vernal pools, application of an in-situ treatment amendment in the amendment-based pools, and site restoration of disturbed areas. Design details are summarized in the following subsections, and additional details are provided on the Design Drawings and in the Design Specifications included in Appendices E and F, respectively.

The pilot test design was developed taking into consideration the existing conditions associated with the vernal pools and surrounding areas. Photographic logs of the removal-based, amendment-based, and control pools under various hydraulic conditions are provided for reference in Appendix G.

GE's most recent *Project Operations Plan* (POP; Arcadis 2025) describes requirements, general activities, protocols, and methodologies to be employed by GE and its contractors during the performance of ROR remedial and restoration activities. That POP was approved by EPA on May 28, 2025. The POP contains a series of plans that address several common aspects of the ROR remedial actions, ranging from initial pre-design activities to the performance and completion of remediation and restoration activities. These plans include a Waste Characterization Plan, Soil Cover/Backfill Characterization Plan, Site Management Plan, Ambient Air Monitoring Plan, and Contingency and Emergency Procedures Plan. The POP also includes a Construction Quality Assurance Plan (CQAP). The CQAP is a generic plan that provides general requirements for implementation of an effective CQAP program. Relevant provisions of the POP plans, as applicable to the pilot test construction activities, are incorporated herein. Substantive requirements of the POP plans have also been incorporated into the design, as discussed in the following subsections and as detailed in the Design Specifications.

On October 15, 2024, GE submitted a *Revised On-Site and Off-Site Transportation and Disposal Plan* (Revised T&D Plan; Arcadis 2024), which describes GE's plans for the transport and disposal of sediments and soils removed from the ROR. The Revised T&D Plan was conditionally approved by EPA on April 29, 2025. Certain provisions of the Revised T&D Plan are applicable to the pilot test construction activities, as described in Section 5.5.5. Substantive requirements of the Revised T&D Plan have been incorporated into the design, as discussed in the following subsections and as detailed in the Design Specifications.

During the pilot study, routine control measures and best management practices will be implemented to maintain compliance with the quality of life (QOL) standards established in GE's *Second Revised Quality of Life Compliance Plan* (QOL Compliance Plan; Anchor QEA and Arcadis 2025), which was approved by EPA on May 28, 2025. The applicable provisions and requirements of

the QOL Compliance Plan have been incorporated into the design, as discussed in the following subsections and detailed in the Design Specifications. The QOL considerations for the pilot study are discussed more specifically in Section 7 of this work plan.

Finally, consistent with GE's June 2024 *Revised Adaptive Management Plan* (Anchor QEA 2024), the pilot study will utilize an adaptive management approach in implementing the pilot study. Under this approach, design elements, construction methods, equipment, and techniques identified in this final work plan that are determined during construction to be unsuccessful or to warrant improvement will be refined, modified, or eliminated, as appropriate, to achieve the objectives of the pilot study more efficiently and effectively. Such changes will be discussed with EPA's field representatives and will be documented in project records.

5.1 Final Selection of Vernal Pools

The data and information collected during the baseline monitoring and ecological survey (Section 4) were reviewed to determine whether any change is warranted to the selected test or control pools. It was determined that no change is warranted from the pools proposed and approved in the Revised Pilot Work Plan. Accordingly, the 10 test and seven control pools specified in that Revised Pilot Work Plan will be included in the pilot study. Those 17 pools are shown on Figures 5-1 through 5-7, along with PCB concentrations, habitat information, and the portions of the test pools identified for amendment placement or removal.

5.2 Site Preparation

Immediately prior to or following mobilization to the work area, the selected pilot study contractor will perform site preparation activities to establish the necessary site controls, features, and procedures for subsequent implementation of the construction activities. The site preparation activities will include, but are not limited to, the following:

- Obtaining utility clearances;
- Establishing restricted work area controls, access points, and safety;
- Establishing survey control; and
- Installing erosion and sedimentation control measures.

General information regarding various site preparation activities (e.g., coordinating with local utilities, permitting, verifying existing conditions, and establishing work areas) is provided in the CQAP included in the POP. The information provided in the following subsections supplements the CQAP by providing additional site-specific details associated with certain of these activities.

5.2.1 Utility Clearances

Above-ground and underground utilities that could potentially be affected by the construction activities will be identified prior to initiating any intrusive subsurface activities (i.e., soil excavation and in-situ mixing of amendments). As indicated in the Design Drawings in Appendix E, certain above-ground and subsurface utilities are known to be present adjacent to some of the vernal pools, along access routes, and at or near anticipated support areas. Known subsurface utilities include sanitary sewer lines that run along easements near several of the vernal pools and along the proposed access routes, and above-ground utilities include overhead utility poles and lines along proposed access routes. In addition, underground and above-ground utilities are located at work area entrances along Pomeroy Avenue and Holmes Road. The selected contractor will be responsible for coordinating with Dig Safe (i.e., 811 or www.digsafe.com) to identify the locations of underground utilities at the start of the work and, as necessary, coordinating with the owners of the utilities regarding any potential protection requirements. Specifically, GE and the selected contractor will coordinate with the City of Pittsfield to identify the locations, depths, and any protection requirements for the sanitary sewer located along proposed access routes and near several vernal pools.

5.2.2 Work Area Safety and Security

Active remediation work areas will be secured to prevent access by unauthorized persons. Specific details regarding the security measures to be implemented will depend on the location of those activities. Security measures will be selected in consultation with the contractor and will, at a minimum, include the following.

- **Temporary Fencing:** Temporary construction fencing will be installed, as needed, to delineate and secure areas during ongoing construction activities. At a minimum, temporary fencing, gates, or other appropriate barriers will be installed at the entrances to restricted areas from public access points. Areas affected by the construction activities will be secured daily prior to workers leaving the site.
- **Signage:** Warning signs will be installed at the entrances to restricted areas. In addition, because the pilot study vernal pools and the access routes to the pools are located along a cleared path at the sanitary sewer easements, descriptive panels (to be designed by GE in coordination with EPA) will be installed at entrances to restricted areas to describe the remediation activities and to inform the public how to find additional information on the project website and how to receive relevant notifications.
- **Sign-In/Sign-Out System:** For the duration of construction activities, a sign-in/sign-out system will be administered by the contractor at a designated location for the work site. All

on-site personnel and visitors will be required to sign in upon entering the work area and sign-out upon leaving.

- **Traffic Control Measures:** Traffic control measures will be implemented at access points to work areas along public roadways, including Pomeroy Avenue and Holmes Road, where construction support vehicles will enter the work area. The contractor will install signs to warn oncoming traffic of the construction entrance. Where work is required within the public roadways (e.g., to construct work zone entrances), a police detail will be required in accordance with Massachusetts law. Flagmen will be used, as needed, to control traffic when trucks or delivery vehicles have the potential to disrupt traffic along public roadways. GE will work closely with the City of Pittsfield to coordinate traffic control at work zone entrances. The construction manager or the contractor will obtain any necessary traffic control approvals and make any required notifications prior to initiating traffic control measures.
- **Work Zone Inspections:** During construction activities, inspections of the active work area will be performed by the construction manager on each day of construction. The inspections will be performed to note and, if necessary, respond to any changes to the conditions of the work area.

The need for additional security measures during the pilot study will be evaluated with the selected contractor. The pilot study SIP to be prepared after contractor selection, as described further in Section 6.2, will include a section entitled "Site Management and Security," which will discuss site management and security measures that are developed in concert with the selected contractor.

5.2.3 Erosion and Sedimentation Control Measures

Erosion and sedimentation control measures will be implemented to minimize the potential for erosion of exposed soils and subsequent accumulation of materials in site drainage pathways or the Housatonic River. Erosion and sediment control measures will be installed by the contractor prior to commencing activities that will disturb the soil. In addition, these measures may be used to divert rainfall runoff from entering work areas and open excavations.

Additional erosion and sedimentation details are provided in Specification Section 31 25 00 – Erosion and Sediment Controls (Appendix F). The scope of erosion and sedimentation controls to be implemented during remediation activities (including installation, monitoring, and maintenance) will be described, based on contractor input in the Operations Plan, which will be included, along with a Stormwater Pollution Prevention Plan (SWPPP), in the pilot study SIP, as discussed in Section 6.1.

5.3 Temporary Access Roads and Staging/Support Areas

Temporary access roads and temporary staging/support areas will be constructed to support the pilot study construction work. In general, clearing of existing vegetation will be performed only

where necessary to access the vernal pools and construct staging/support areas. Mature trees with a diameter at breast height (DBH) greater than six inches will be left in place to the extent practicable. This subsection describes the planned approach to construct temporary access roads and staging areas to support the pilot study and presents the approximate locations of the support areas. Final details associated with the temporary access roads and staging/support areas will be developed in consultation with the selected construction contractor and will be presented in the SIP.

In general, there are existing unimproved paths allowing access to the proximity of the pilot test vernal pools. For access to the wooded area west of Pomeroy Avenue (i.e., for test pools 5A-VP-4, 5A-VP-7, 5A-VP-9, 5A-VP-15, and 5A-VP-16), the unimproved paths were previously established along the general location of a City of Pittsfield sewer easement to provide equipment access for the Reach 5A Supplemental Data Collection program. For access to the area south of Holmes Road (i.e., for test pools 5A-VP-22, 5A-VP-27, 5A-VP-52, and 5A-VP-57), the unimproved paths are located along the sanitary sewer easement and are routinely maintained and accessed by others.[12] At the Miss Hall's School north of Holmes Road, an existing paved private road and gravel pathway provide access near test pool 5A-VP-12.

During the pilot study construction activities, access to the vernal pools will occur from these existing paths to prioritize use of disturbed or degraded habitat areas where practicable (e.g., utility corridors, existing paths, and other disturbed areas). It is expected that these routes will also be used to support the future Reach 5A remediation project, as several of these routes were identified in the Reach 5A Conceptual RD/RA Work Plan.[13] Additional temporary access routes will need to be established extending from the existing paths to some vernal pools to complete the pilot study construction, the longest of which will be to test pools 5A-VP-4, 5A-VP-12, and 5A-VP-52. The locations of the proposed access routes are shown in Drawings C11 through C13 in Appendix E.

Given the relatively small scale of the pilot study activities, improvements and new construction of access routes will be determined based on coordination with the selected contractor and details will be presented in the SIP.

As described in the Reach 5A Conceptual RD/RA Work Plan, the temporary access routes have been designated as either primary or secondary access roads, as shown on Drawings C11 through C13 in Appendix E. Primary access roads are located along main routes that generally align with the existing sewer easements or along existing paths or roadways. Portions of the primary access roads may remain in their current condition; however, improvements will be needed to some of the primary

[12] Discussion with the City of Pittsfield will be needed regarding load limits or other concerns associated with the access routes on City of Pittsfield utility easements prior to finalizing the locations of temporary access roads.

[13] Final details of access routes for the Reach 5A remediation will be presented in the Final Remedial Design/Remedial Action Work Plan for Reach 5A.

access roads to create a suitable surface for vehicle and equipment access and material transport. Specifically, there are multiple culvert pipes and uneven terrain along the existing path west of Pomeroy Avenue that will require improvement for the pilot-scale construction. Any modifications to existing culverts or new culverts along the primary access route will be conducted in a manner to maintain the current hydraulic conditions. In other words, any culvert improvements will be made to improve road conditions, but they will not involve improving water conveyance to avoid changes to the floodplain and vernal pool hydrology. Where roadway improvements are made to primary access roads, a geotextile fabric will be placed above the ground surface and a temporary gravel cover will be installed to improve ground conditions and support the weight of trucks necessary to haul materials to and from the work areas.

The secondary access roads that provide access through the floodplain to isolated vernal pools (i.e., 5A-VP-4, 5A-VP-12, and 5A-VP-52) will be constructed using low-impact construction methods (e.g., timber matting or composite panels). Details on the secondary access road construction will be presented in the SIP. Detailed requirements are provided in Specification Section 01 55 13 – Temporary Access Roads and Staging Areas (Appendix F) and on the Design Drawings (Appendix E).

To support the pilot-scale remediation work, temporary staging areas will be constructed as needed by the construction contractor near each test pool. Preliminary temporary staging and support area locations are shown on the Design Drawings. Temporary staging and support areas will include areas for material staging, dewatering of excavated vernal pool soil (if needed), equipment decontamination, and clean transition areas, as described below.

Where direct loading of excavated soils to trucks is not feasible, the excavated soils will be staged and dewatered (as necessary) in a dewatering pad that consists of a lined surface that is sloped to a collection sump near the removal-based test pool. Details associated with the soil dewatering area surface will be developed by the contractor based on site conditions and its planned construction methods and will be presented in the SIP. Water collected during the dewatering process and precipitation that falls within dewatering pad will be collected and handled in accordance with Section 5.5.6.

An equipment cleaning area will be constructed by the contractor at each work site to allow equipment decontamination, as detailed in Section 5.7. The equipment cleaning area will generally consist of an impermeable barrier that is sloped to a collection sump. Details associated with the decontamination area will be developed by the contractor based on site conditions and its planned construction methods and will be presented in the SIP.

Because some activities will require periodic access/egress between the work sites and adjacent areas, “clean” transition areas will be established. Such areas will be used for equipment and materials delivery and for the positioning of trucks for subsequent loading and transport of

excavated materials. Each access/loading area will be constructed with a geotextile fabric, which will provide demarcation of the pre-construction surface, and overlain with gravel. The specific locations and construction of access/loading areas will be developed by the contractor based on its planned construction methods and sequencing, as well as other factors such as field conditions, the work area layout, traffic patterns, and material handling procedures.

In addition, as discussed further in Section 5.7, tire cleaning stations will be established at all three locations where the temporary access roads egress onto public roads, as well as at the location where the temporary access road transitions onto existing gravel roads associated with Miss Hall's School. The tire cleaning stations will be constructed to prevent the tracking of soils onto public roads. Improvements to the temporary access roads from the tire cleaning stations to the egress on public roads will be performed by placing a geotextile fabric and a 12-inch minimum layer of crushed gravel in those areas. The approximate locations of the tire cleaning stations are shown on Drawings C11 through C13 (Appendix E); the final locations will be determined by the contractor prior to construction and will be shown in the SIP.

The existing topography adjacent to the vernal pools will be maintained throughout site access and the pilot study construction activities, including at test pools 5A-VP-4, 5A-VP-7, 5A-VP-52, and 5A-VP-57 where channels or swales connect with the vernal pools.

5.4 Amendment-Based Pilot Study Design

Amendment placement will be conducted in the five test pools selected to receive such treatment (5A-VP-9, 5A-VP-12, 5A-VP-15, 5A-VP-22, and 5A-VP-27), as shown on Figures 5-2, 5-3, 5-4, and 5-5 and in the Design Drawings (Appendix E). Details related to the specific amendment types, doses, and application methods to be evaluated in each pool were determined based on the results of the bench-scale testing, as described in Sections 3.2 and 3.3. Construction-related details are provided in Specification Section 35 20 26 – Amendment Placement (Appendix F).

5.4.1 Amendment Type and Application Rate

As discussed in Section 3.3.3, the recommended amendment type is PAC, with a recommended application rate that will result in 2% by weight PAC within the top six inches of soil in the amendment-based test pools. To account for construction variability and uncertainty, a 25% uncertainty factor has been incorporated into the design, resulting in a target application rate of 2.5% by weight PAC for the top six inches of soil. Using a PAC density of 25 pounds per cubic foot and a soil density of 61 pounds per cubic foot (as measured during the pilot testing, see Appendix B), the target PAC application rate is 0.79 pounds per square foot, or approximately 34,400 pounds per acre.

Based on field studies at other sites, it is not anticipated that the PAC application at this rate will have a negative ecological impact on biota. Overall, studies conducted to evaluate the response of benthic communities to AC application show that low-dose AC amendments generally have no or only mild effects on the diversity and abundance of the benthic community (e.g., Janssen and Beckingham 2013). See also Section 3.1.1.1.2. Specific examples include the following:

- Hunters Point, California, is a PCB-impacted tidal mudflat amended with a fine-granular AC (75 to 300 µm) in the range of 2% to 3.2% AC by dry weight, either mixed or injected into surficial sediments. No effects to the benthic community, taxa richness, composition, or diversity were observed compared to control plots six to 18 months following amendment application.
- Grasse River, New York, is a PCB-impacted river amended with fine-granular AC (75 to 300 µm), applied either as a layer or injected or mixed into PCB-impacted surficial sediments. The target dose was 3.75% AC by dry weight, although levels measured after amendment ranged from 1% to 17%. No differences in the benthic community composition (diversity, tolerance, or functional measures such as feeding mode or habit) or organism abundance were observed up to three years after application compared to unamended reference locations.

5.4.2 Amendment-Application Method

Based on the bench-scale testing results, site specific conditions, and information from prior similar applications at other sites, two different amendment approaches will be tested during the field pilot study: (1) placement of a PAC/sand blend; and (2) placement of SediMite™ (or an approved equivalent). The PAC/sand blend will be placed with a by-weight ratio of 50% sand and 50% PAC. SediMite™ is a pelletized PAC delivery system composed of approximately 50% PAC, 30% sand, and 20% bentonite clay by weight. When wet, the SediMite™ pellets rapidly disintegrate, releasing the fine-grained PAC.[14]

Based on laboratory testing conducted as part of the bench-scale testing (Appendix B), the blend of 50% PAC and 50% sand by weight has a bulk density of 32 pounds per cubic foot. Therefore, to achieve the target PAC application rate of 0.79 pounds per square foot, the average thickness of the PAC/sand blend placed is estimated to be approximately 0.6 inches. Based on information provided by the vendor, SediMite™ has a bulk density of 45 pounds per cubic foot. Therefore, to achieve the target PAC application rate of 0.79 pounds per square foot, the average thickness of SediMite™

[14] This work plan refers throughout to the SediMite™ pelletized delivery system. As used herein, that term also includes an approved equivalent pelletized PAC delivery product, which will also be acceptable as detailed in Specification Section 35 20 26 – Amendment Placement (Appendix F).

placed is estimated to be approximately 0.4 inch. These minimal thicknesses will have minimal impact on vernal pool hydrology.

Erosive forces (such as those from wind and surface flow) are expected to be low in the areas of amendment placement. Existing vegetation and the placement of the PAC as a mixture with sand or as a mixture of sand and clay as is the case for SediMite™, rather than as a layer of PAC only, will further minimize losses of PAC following placement. In addition, as discussed in Section 5.5.8, a layer of clean leaf litter will be applied following placement of the amendment, further minimizing the potential for PAC loss.

These amendments will be placed in the five amendment-based pools, as shown in Table 5-1. As described in this section, pools 5A-VP-15 and 5A-VP-22 were subdivided to test two different amendment application approaches in these pools. The subdivision of 5A-VP-15 (west and east) and 5A-VP-22 (north and south) are shown in the Design Drawings (Appendix E). As summarized in this table, approximately one acre will be tested with mechanical mixing, 0.5 acre will include a surface application of PAC/sand, and 0.7 acre will include a surface application of Sedimite™.

Table 5-1
Amendment Application Approach for Each Amendment-Based Vernal Pool

Vernal Pool	Area (acres)	Porewater PCB SWAC (ng/L)[1]	Amendment Application Approach
5A-VP-9	0.6	450	PAC/sand with mixing[2]
5A-VP-12	0.27	50.3	SediMite™ surface application
5A-VP-15 (West)	0.19	104	PAC/sand with till mixing
5A-VP-15 (East)	0.18	108	PAC/sand with tine mixing
5A-VP-22 (North)	0.41	46	PAC/sand surface application
5A-VP-22 (South)	0.41	144	SediMite™ surface application
5A-VP-27	0.08	443	PAC/sand surface application

Notes:

1. Based on the results of the baseline monitoring described in Section 4.1 and Appendix C.
2. The mixing method to be used for pool 5A-VP-9 will be determined based on the mixing observations and effectiveness observed for pool 5A-VP-15.

During the pilot study, the amendment will be applied to the surface of the vernal pools. As discussed in Section 2.2, following that surface application, the amendment will be incorporated into the subsurface over time via natural processes such as bioturbation as well as via burial due to input of new sediment from the surrounding watershed and decomposition of leaf litter deposited within the pools. Monitoring of the depth of passive PAC mixing over time (anticipated to be due in large part to bioturbation) will be conducted to further evaluate the appropriate depth over which the porewater criterion should be applied, as discussed in Sections 8.1.2.1 and 8.3.

Reliance on natural processes to incorporate the PAC into the vernal pool soils will minimize adverse impacts to the habitat within those pools; however, natural mixing is anticipated to be a relatively slow process, and the depth of bioturbation is uncertain. Therefore, as summarized in Table 5-1, mechanical mixing will be tested during the pilot study in two of the five pools (5A-VP-9 and 5A-VP-15) to evaluate the potential effectiveness and implementability of mechanical mixing at increasing the rate of PAC incorporation into the vernal pool soils. The mechanical mixing methods will be tested where the PAC/sand blend is applied.[15] Specifically, two different mixing approaches will be tested in 5A-VP-15. The first mechanical mixing approach will include tilling of the top six inches of soil following PAC/sand placement. This approach will be more aggressive and is expected to result in more thorough mixing but would likely be difficult to implement due to obstructions from existing vegetation, roots, and woody debris. The second mechanical mixing approach will use tines to repeatedly penetrate the surface soil following PAC/sand placement. The tines will function by pushing some PAC into the subsurface and by creating openings for the PAC to migrate downward into the soil. This approach is expected to be easier to implement but to result in less thorough mixing than tilling. Pool 5A-VP-15 was selected to test the mechanical mixing methods because the type of vegetation present in this pool (i.e., non-persistent emergent vegetation) is expected to present less challenging mixing conditions and to recover relatively quickly subsequent to mixing.[16] The mixing methods to be tested in pool 5A-VP-9 (which generally consists of dogwood shrubs, woody debris, and some open areas) will be selected in the field based on effectiveness of the mixing in pool 5A-VP-15. The proposed mixing methods for 5A-VP-09 will be reviewed with EPA prior to implementation. The specific equipment and tools that will be used for mechanical mixing will be determined by the contractor in conjunction with GE during the procurement phase and will be described in the SIP to be provided to EPA for review and approval.

Based on experience on similar projects, it is anticipated that the SediMite™ will be applied pneumatically and that the PAC/sand blend will be applied hydraulically. Pneumatic application (i.e., for SediMite™) is a method that delivers the amendment pellets to the test area in a dry manner and thus has the potential to generate dust. The PAC/sand blend will be mixed with water and pumped to the application area where it will be sprayed into place, which minimizes the potential to

[15] Mechanical mixing methods will not be tested where the Sedimite™ is applied because the bentonite composition of the pellets will interfere with mixing of the amendment. Rather, where applied, Sedimite™ will be applied to the surface of the vernal pool.

[16] In addition to the mixing to be pilot tested in pools 5A-VP-9 and 5A-VP-15, the implementability of both types of mixing (till and tine mixing) will be evaluated for different vegetation types at relatively small plots within other amendment-based pools (including areas of dogwoods, areas of other types of wetland vegetation, and areas where larger tree roots are present). The exact number, areas, and sizes of these test plots will be determined in the field in consultation with a project wetland scientist. The proposed mixing areas will be reviewed with EPA prior to implementation. Because the testing of mixing in other pools will be conducted to evaluate the implementability of mixing in various types of vegetation, specific monitoring of porewater PCB concentrations will not be conducted in these areas.

generate dust. During the amendment application, dust control measures will be implemented to maintain compliance with particulate matter and visible dust QOL criteria described in Section 7. The specific amendment application equipment and methods, including control measures to minimize generation of dust, will be determined by the contractor in conjunction with GE and will be described in the SIP for EPA review and approval.

Vegetation removal will be completed prior to amendment placement, as needed, based on judgment by the field engineer, the contractor, and a project wetland scientist. The goal is to minimize vegetation removal in an effort to minimize disturbance to the vernal pools other than mechanical mixing. However, cutting of resilient species, such as dogwood shrubs and small woody vegetation, will be conducted to promote amendment application. There will be no tree removal in the amendment-based test pools.

Woody debris will be left in place in the amendment-based pool, except in 5A-VP-9 and 5A-VP-15, where mechanical mixing will be conducted, and in areas where woody debris needs to be removed to facilitate equipment access. Where woody debris removal is performed, it will be removed prior to amendment placement and staged near the vernal pool. As described in Section 5.5.8, the woody debris will be replaced following completion of amendment application and mixing. Woody debris removed from the vernal pools will be placed back into the same general areas from which it was removed.

Prior to placement, each amendment-based pool will be divided into Amendment Certification Units (ACUs). Specifically, each amendment-based pool will be divided into a minimum of three ACUs, each of which will not exceed 2,500 square feet (approximately 0.06 acre). The ACUs will be used to verify that the PAC application rate is achieved in each pool by tracking and documenting the amount (i.e., tons) of amendment placed in each ACU. In addition, cores, catch pans, or visual observations may be used at the discretion of the construction manager to verify uniform placement of the amendment across the target placement area.

It is anticipated that the amendment material will be placed during late summer or autumn when the vernal pools are not flooded and during relatively dry conditions. SediMite™ is designed to allow placement through standing water, but the pools will need to be relatively dry for the placement of the PAC/sand mixture to achieve the intended application to the soil surface.

5.5 Removal-Based Pilot Study Design

Excavation, backfill, and restoration activities will be conducted in the five test pools selected for the removal-based approach (5A-VP-4, 5A-VP-7, 5A-VP-16, 5A-VP-52, and 5A-VP-57), as shown on Figures 5-1, 5-2, 5-3, and 5-6 and in the Design Drawings (Appendix E) and discussed in the following subsections.

5.5.1 Development of Removal Areas and Volumes

To achieve the Revised Final Permit performance standard of 3.3 mg/kg for the 0- to 1-foot PCB SWAC (Section 2.1), areas for removal and backfill were delineated in the five vernal pools selected for removal-based treatment during the pilot study (5A-VP-4, 5A-VP-7, 5A-VP-16, 5A-VP-52, and 5A-VP-57). The pre-remedy PCB SWACs for these pools ranged from 7.1 to 40 mg/kg, as summarized in Table 5-2. The specific remediation areas within these pools were derived using a hill-topping approach, consistent with the method described in Appendix A to GE's Non-Residential Floodplain PDI Report (Anchor QEA and Arcadis 2023). This involved processing the pre-remedy spatial distribution of 0- to 1-foot PCB concentrations (based on Thiessen polygons) into three-foot by three-foot raster grids and then sequentially "removing" raster grid cells with the highest PCB concentrations and replacing them with a PCB concentration of 0.021 mg/kg (representing backfill).[17] Pool-wide SWACs were calculated after each remediation step and compared against the performance criterion until SWACs were reduced to a value less than 3.3 mg/kg. The removal area delineated from the hill-topping analysis in one vernal pool (5A-VP-57) was further "optimized" to provide a more contiguous remedial footprint; under this approach, grid cells with somewhat lower PCB concentrations were targeted for removal in the interest of generating a more contiguous remedial footprint.[18] Figures 5-1, 5-2, 5-3, and 5-6 show the portions of the vernal pools where soil removal will be performed. Table 5-3 summarizes the estimated removal volumes and areas for the five removal-based vernal pools.

Soil in portions of the proposed removal areas have in-situ PCB concentrations greater than 50 mg/kg. Accordingly, soil removed from these areas will be managed and disposed of as a waste regulated under the Toxic Substances Control Act (TSCA), as described in Sections 5.5.4 and 5.5.5. When delineating the removal areas with such waste (referred to as TSCA removal areas), the entire one-foot-depth removal polygon was characterized for TSCA disposal if PCBs exceeded 50 mg/kg in any individual six-inch sample interval within the top one foot. Figures 5-8 through 5-11 show the designated TSCA and non-TSCA removal areas in the five removal-based pools.

[17] In conducting remediation evaluations for areas outside the river under the CD, GE has generally used an assumed PCB concentration of 0.021 mg/kg for the backfill, which represents one-half of the average detection limit from actual prior sampling of backfill sources. This value was identified in the Non-Residential Floodplain PDI Report (Anchor QEA and Arcadis 2023) for use to represent backfill in the Reach 5A floodplain evaluations.

[18] The removal area for pool 5A-VP-4 was similarly optimized in the prior Revised Pilot Work Plan; however, the removal area was further revised in this Final Pilot Work Plan to avoid impacts to trees in the middle portion of the pool.

Table 5-2
Removal Area and Volume Estimates for Removal-Based Vernal Pools

Vernal Pool ID	Pre-Remedy SWAC (mg/kg)	Total Pool Area (acre)	Total Removal Area (acre)	TSCA Removal Area		Non-TSCA Removal Area		Total Removal Volume (cy)
				Removal Area (acre)	Removal Volume (cy)	Removal Area (acre)	Removal Volume (cy)	
5A-VP-4	14	0.23	0.14	0	0	0.14	234	234
5A-VP-7	33	0.41	0.29	0.24	392	0.05	75	466
5A-VP-16	7.1	0.04	0.018	0	0	0.018	30	30
5A-VP-52	40	0.06	0.05	0.05	80	0	0	80
5A-VP-57	30	0.49	0.33	0.17	279	0.16	253	532
		Total	**0.83**	**0.46**	**751**	**0.37**	**592**	**1,342**

5.5.2 Surveying and Verification of Removal Depths and Backfill Elevations

Survey controls will be established by a Professional Land Surveyor licensed in the Commonwealth of Massachusetts, who will be retained by the contractor at the start of the work and maintained throughout the construction activities, as detailed in Specification Section 02 21 00 – Surveys (Appendix F). Prior to construction, GE's construction manager will provide the contractor with the required survey control points based on a 10-foot grid within each excavation area, plus additional control points along the perimeter of the excavation area. This information will also be included in the SIP to be provided to EPA. The Remediation Contractor will maintain this grid and complete all elevation measurements on this grid for the duration of the project—i.e., the same control points will be used to measure elevations prior to and following soil removal activities to verify required removal depths are achieved, as well as to verify that the required post-backfilling limits and elevations are achieved. To support this verification, GE will submit to EPA for approval pre-excavation tables prior to the start of excavation, post-excavation tables prior to the start of backfilling operations, and final post-backfilling elevation tables.

5.5.3 Soil Removal Activities

As summarized in Table 5-2, approximately 1,340 in-situ cubic yards of soil will be targeted for removal during the pilot study. The removal limits are shown on Design Drawings C01, C02, C04 and C07 (Appendix E). The vernal pool removal activities will be conducted using low-ground-pressure mechanical excavation equipment and/or construction mats to minimize impacts to surrounding areas. Detailed excavation requirements are provided in Specification Section 31 23 00 – Excavation and Fill (Appendix F). The contractor's equipment and methods for soil removal will be described in the SIP.

Prior to initiating removal activities, the horizontal limits of removal will be surveyed and staked in the field. During removal activities, field surveys will be conducted to verify that the target one-foot removal depth is achieved for each excavation area, as detailed in Section 5.5.2.

The vernal pool soil excavation work will be conducted during summer or fall when there is no standing water within the vernal pools. If water is encountered, the excavation area will be dewatered as described in Section 5.5.6. to facilitate completion of the soil removal and backfilling activities.

Where present, mature trees within and adjacent to excavation areas with a DBH greater than six inches will be left in place to the extent practicable. Excavation in close proximity to these trees will be performed by hand by the contractor or using other methods that minimize disturbance to the root system under oversight by a project wetland scientist.

5.5.4 Handling of Removed Materials

Excavated materials will be managed near the vernal pool prior to off-site transportation for disposal, as discussed below and detailed in Specification Section 35 20 24 – Excavated Material Processing and Handling (Appendix F). The removed soils and debris will either be directly loaded onto trucks for transportation to an appropriate off-site disposal facility or placed in a temporarily staging area near the excavation before loading onto trucks for transport to the designated off-site disposal facility.

Temporary staging area will be constructed on bermed areas with an impermeable liner. Appropriate stormwater management controls will be installed prior to placement of excavated material into the temporary staging areas. The staging and material handling areas, as well as any associated erosion and sedimentation controls, will be inspected and maintained regularly.

Site-related material characterization requirements are detailed in the Waste Characterization Plan (Attachment A to the POP). As discussed in Section 5.5.5, all soils, debris, and other waste generated as part of the pilot test construction will be disposed of at appropriate off-site facilities. As specified in the Waste Characterization Plan, material to be disposed of off site will be further characterized as necessary to the extent required by the selected off-site treatment, storage, and disposal facility (TSDF). Such material may fall into three categories: (1) material containing PCB concentrations at or above 50 mg/kg, whose disposal is regulated under EPA's TSCA regulations; (2) material that constitutes characteristic hazardous waste under EPA's RCRA regulations (if any); and (3) material whose disposal is not regulated under TSCA regulations and which does not constitute hazardous waste under RCRA regulations.

As discussed in Section 5.5.1, a portion of the material to be excavated has been determined to have in-situ PCB concentrations greater than 50 mg/kg and thus will be disposed of off site as TSCA-regulated waste. During the soil excavation and material handling operations, TSCA-regulated waste

and non-TSCA material (i.e., material with PCB concentrations less than 50 mg/kg) will be handled and staged separately. Debris encountered during soil removal that has been in contact with the soil will be segregated for disposal based on the designation of the surrounding soil or characterized separately to determine the appropriate disposal method. If necessary, large debris items will be cut to size at the temporary staging areas to facilitate transport and to meet the requirements of the disposal destination.

As also described in the Waste Characterization Plan, GE conducted screening of existing ROR sediment and floodplain soil data on non-PCB constituents, including such data from the RCRA Facility Investigation, to evaluate whether sediments and soils designated for removal may be considered hazardous waste under RCRA. This screening was performed using the "20 times rule."[19] This screening of the ROR data indicated that characteristic RCRA hazardous waste would not be expected in the ROR. As noted above, if additional waste characterization is required by the off-site TSDF operator, GE will provide the waste characterization data to EPA and inform EPA of the facility selected based on those data and the facility's regulatory status to receive the category of material planned to be transported to it.

Where saturated soils are encountered, they will be allowed to drain within the excavation limits by being placed in small piles for gravity dewatering or by draining directly from the excavator bucket suspended over the excavation area prior to being stockpiled at the temporary staging areas adjacent to the excavation area. Where excavated materials are transported to a temporary staging area, they will be staged and managed at the staging area until they have been sufficiently dewatered by gravity to pass the Paint Filter Liquids Test (SW846 Test Method 9095B). If gravity dewatering does not yield material that will pass the Paint Filter Test, drier excavated materials (if available in sufficient quantities) will be blended with the excavated material (as necessary) to condition the material such that it is suitable for transport (i.e., contains no free liquids and passes the Paint Filter Test). If additional dewatering is needed for materials that will be transported to an off-site disposal facility, GE will take other actions (e.g., blending excavated materials that have a higher moisture content with excavated soils that have a lower moisture content, if practicable) prior to adding drying agents (e.g., Portland cement or other suitable and locally available material). Once the excavated materials are sufficiently dewatered, the materials prepared for final disposition will be loaded into lined and covered over-the-road vehicles for off-site transport.

[19] Under this rule, the in-situ sample results for constituents that could cause materials to be hazardous waste (expressed as mg/kg or parts per million) are divided by 20, changing the reporting units from milligrams per kilogram to micrograms per liter, and the converted results are compared to the allowable extract toxicity characteristic concentration limits in 40 CFR 261.24. Materials that are determined through this screening evaluation to have concentrations within those allowable regulatory limits will not be considered RCRA hazardous waste (provided there is no basis for believing the material would constitute hazardous waste on other grounds).

Any residual wastes (e.g., disposable equipment, personal protective equipment, sampling equipment, and cleaning residuals) generated will be placed in stockpiles or containers and will be disposed of at an off-site facility. They will be characterized for disposal based on the analytical results from the associated media from which the materials originated or which they contacted during use (e.g., soil).

5.5.5 Off-Site Transport and Disposal

As discussed in Section 9, the vernal pool pilot test is anticipated to be conducted in 2026, at which time the Upland Disposal Facility will not be fully constructed and able to receive waste material delivery. Therefore, as mentioned in Section 5.5.4, all soils, debris, and other waste generated as part of the pilot test will be disposed of at appropriate off-site facilities. Due to the timing of the vernal pool pilot study and the relatively small volume of soils to be excavated, trucks will be used to transport the excavated material to appropriate off-site disposal facilities. The local routes that will be used for truck transport of these waste materials are shown on Drawing C14 (Appendix E).

GE's October 2024 Revised T&D Plan describes the procedures for transporting and disposing of sediment, soil, and debris anticipated to be removed during the implementation of the ROR Remedial Action. The Revised T&D Plan also includes best management practices and temporary controls to minimize potential traffic accidents, such as posting of traffic control signs (e.g., speed, parking areas) in the work areas, and, where appropriate, utilization of traffic control personnel (e.g., flaggers). The pilot test activities will be performed consistent with these provisions of the Revised T&D Plan and as detailed in Specification Section 02 81 02 – Transportation and Disposal of Excavated Material (Appendix F).

5.5.6 Water Management

Soils will be excavated to a depth of one foot, and it is anticipated that excavation activities will be conducted when the vernal pools are dry, as noted above. As a result, significant water is not expected to be encountered in these excavations. However, there is a potential to encounter some water within the excavations as a result of groundwater infiltration or precipitation/runoff. Water generated from soil and debris staging and processing, stormwater that accumulates in the staging area exclusion zone, and water used for cleaning and decontamination that does not contain additives (such as solidification/stabilization additives, detergents, decontamination additives, dewatering polymers or coagulents, or other additives) will be collected at the staging areas and transported to GE's Building 64G water treatment facility for treatment and discharge, as detailed in Specification Section 02 72 00 – Water Management (Appendix F). Any water transported to GE's Building 64G water treatment facility will be filtered to remove suspended solids prior to transport.

Liquid waste generated during the pilot test that cannot be treated at the GE treatment facility (i.e., water impacted by any additives) will be containerized and transported for off-site disposal. In

that event, or if GE otherwise elects to transport construction waters for off-site disposal, additional sampling and laboratory testing will be performed as required by the receiving facility.

As described in Section 9, pilot study construction is planned for late summer or autumn when the vernal pools are not flooded and during relatively dry conditions; therefore, it is anticipated that there will be minimal or no standing water in the vernal pools at the time of construction. However, in the unlikely event that there is significant standing water in the pilot study pools at that time, and it is not anticipated that the pools will dry out in a timeframe that will allow for completion of the pilot test construction in the 2026 construction season, standing water in the pilot study pools will be pumped to the Housatonic River. During pumping, care will be taken to minimize entrainment of sediments at the suction end to avoid impacts to the river. If this contingency is required, a pumping and discharge plan will be prepared and submitted to EPA for approval prior to initiating pumping.

5.5.7 Backfilling

Following verification that the design removal depths have been achieved, topsoil will be obtained from an off-site source and placed within the removal areas to re-establish pre-removal grades. Detailed backfilling requirements are provided in Specification Section 31 23 00 – Excavation and Fill (Appendix F).

Topsoil material will consist of clean fill material from an off-site source(s). The topsoil will be a fertile, friable, natural-loam surface soil, capable of sustaining vigorous plant growth; free of any admixture of subsoil, clods of hard earth, plants or roots, sticks, stones larger than one inch in diameter, pests and pest larvae, or other extraneous material harmful to plant growth. Specifically, it will have the following properties:

- A loam texture with Unified Soil Classification System classification of SM (silty sands, sand-silt mixtures) or SC (clayey sands, sand-clay mixtures) granular soil material;
- A weak granular structure and friable consistency;
- Minimum 8% organic content by weight (per ASTM International [ASTM] D2974); and
- A pH between 5.6 and 6.9 in accordance with ASTM D4972.[20]

Backfill chemical characterization and acceptance criteria will be consistent with the Soil Cover/Backfill Characterization Plan (Attachment B to the POP). The specific backfill source(s) to be used for this project will be identified by the selected construction contractor and presented in the SIP. Prior to importing backfill material to the site, samples of the proposed topsoil material will be analyzed for physical and chemical properties as required by Specification Section 31 23 00 –

[20] The pH specification range is based soil sampling conducted as part of the baseline ecological survey (described in Appendix C).

Excavation and Fill (Appendix F) to verify compliance with specifications. Specifically, the source materials will be sampled for PCBs and volatile organic compounds, semivolatile organic compounds, and metals, as well as pH and organic content for topsoil sources. Once received, the source material sample analytical results will be provided to EPA in the SIP.

The vernal pool backfill activities will be conducted using low-ground-pressure equipment and/or construction mats to minimize disturbance and compaction within the vernal pools. Backfilling operations for soil removal areas will be initiated as soon as practicable after verification of the removal extent and depths by the construction manager and after EPA approval. As discussed in Section 5.5.2, verification of achievement of the required backfill elevation will be performed using the same 10-foot control grids used to measure elevations prior to and following soil removal activities. Post-placement elevations at each survey point will be within plus or minus 0.2 feet of the pre-removal grade. To ensure no loss of vernal pool depth or floodplain storage capacity, the average post-placement elevation across each vernal pool will be less than or equal to the original grade.

The backfill will be placed within the excavated area to reach its final thickness and elevation under moist conditions. If the equipment being used to place backfill materials was used previously during the soil removal or handling operations, the equipment will be cleaned, using the procedures described in Section 5.7, prior to handling clean backfill materials.

5.5.8 Restoration

Following completion of the pilot test construction activities, the amendment-based and removal-based pilot test pools, as well as temporary staging areas and secondary access roads, will be restored. The primary access roads will not be subject to restoration as part of the pilot study because the same access roads will be used for the upcoming Reach 5A remediation.[21]

5.5.8.1 Restoration of Amendment-Based Vernal Pools

In-situ treatment (i.e., placement of an amendment) is a remedial approach that is anticipated to have minimal long-term impact on the existing ecological conditions within the vernal pools. Therefore, no significant restoration of the amendment-based pools is anticipated. As described in Section 5.4.2, some cutting of vegetation (e.g., shrubs and herbaceous vegetation) will be performed to facilitate application of the amendment. It is anticipated that this vegetation will recover naturally, as will vegetation impacted by mixing in those vernal pools where mechanical mixing will be implemented. The natural recovery of this vegetation will be evaluated as part of the long-term monitoring program.

[21] Eventual restoration of primary access roads used during the pilot study implementation will be addressed in the Reach 5A Restoration Plan that will be submitted concurrently with the Final RD/RA Work Plan for Reach 5A.

After amendment application is complete, a one- to two-inch layer of mulch composed of leaf litter from trees characteristic of the nearby floodplain forest will be applied over the vernal pools, minimizing use of oak leaves (*Quercus* spp.) to less than 30% because oak leaf litter does not decompose as readily as other deciduous tree species leaves. The leaf litter will be sourced locally to the extent practicable, such as from nearby neighborhoods or local leaf collection sites. The leaf litter will not be sourced from other wooded areas of the Housatonic River floodplain.

Prior to the start of amendment application described in Section 5.4, an inventory and photographic record of woody debris will be generated for each test vernal pool.[22] To the extent feasible, woody debris will be left in place in the amendment-based pools. However, removal of woody debris will be required in pools 5A-VP-9 and 5A-VP-15 to facilitate the mechanical mixing of the amendment and soils to be performed in that pool. Removal of woody debris may also be required in other pools to allow access for equipment required to place the amendment. Any woody debris that is removed will be temporarily staged near the vernal pool and then be replaced after amendment placement in the same general location and density as it was prior to the test.

Small woody vegetation that is cut to facilitate the amendment placement (i.e., dogwood shrubs or other woody shrubs or branches) will be temporarily staged near the vernal pools for placement back in the pool after the amendment application to function as temporary egg attachment sites and cover for developing larvae. The cut shrubbery or branches will be placed along the edges of the vernal pools, as directed by a project wetland scientist, with the branch tips pointing toward deeper water accumulation areas.

Detailed restoration requirements are provided in Specification 32 30 00 – Restoration, Planting, and Seeding (Appendix F) and in the Design Drawings.

5.5.8.2 Restoration of Removal-Based Vernal Pools

In conjunction with the vernal pool backfilling in the removal-based test pools, woody debris will be incorporated into the surface and near-surface topsoil to create microtopographic variability, consistent with pre-test conditions, as directed by a project wetland scientist. Following backfilling, vegetation will be restored to match the vegetation present prior to excavation, as detailed in Specification Section 32 30 00 – Restoration, Planting, and Seeding (Appendix F) and as shown in Design Drawings R1 through R6 (Appendix E). Following planting and seeding, a one- to two-inch layer of mulch composed of leaf litter from trees characteristic of the nearby floodplain forest will be applied over the area of the restored vernal pools, again minimizing use of oak leaves (*Quercus* spp.) to less than 30%. As in the amendment-based test pools, the leaf litter will be sourced locally to the

[22] The woody debris inventoried during the baseline ecological surveys, as reported in Appendix C, will be referenced during this pre-test inventory.

extent practicable, such as from nearby neighborhoods or local leaf collection sites. The leaf litter will not be sourced from other wooded areas of the Housatonic River floodplain.

As with the amendment-based test pools, prior to the start of the soil removal activities described in Section 5.5, an inventory and photographic record of woody debris within the vernal pools will be generated for the test pools.[23] During restoration, woody debris will be replaced in the test pools after backfilling in a manner that is generally consistent with the size, location, and density of the woody debris present prior to the pilot test construction. Woody debris may be sourced from: (1) the original vernal pool if it is free of visible soils; or (2) woody debris generated from clearing in other areas of the ROR project if it is free of visible soil.

Small woody vegetation that is cut (i.e., dogwood shrubs and/or other woody shrubs) will be temporarily staged near the vernal pools for placement following backfilling to function as temporary egg attachment sites and cover for developing larvae. Following backfill, the cut shrubbery will be placed along the edges of the vernal pools, as directed by a project wetland scientist, with the branch tips pointing toward deeper water accumulation areas.

Detailed restoration requirements are provided in and in the Design Drawings (Appendix E) and Specification Section 32 30 00 – Restoration, Planting, and Seeding (Appendix F).

5.5.8.3 Restoration of Other Impacted Areas

As described in Section 5.3, the primary access roads that will be used during implementation of the pilot study will also be used for the upcoming Reach 5A remediation. Therefore, no restoration of these primary access roads will be performed as part of the vernal pool pilot test.

The secondary temporary access roads, the temporary staging areas, and additional areas cleared disturbed for access to the vernal pools or to otherwise support the pilot study implementation will be restored following pilot test construction activities.

As discussed in Section 5.3, clearing of existing vegetation will be done only where necessary to access the vernal pools and construct temporary staging and access areas. Mature trees with a DBH greater than six inches will be left in place to the extent practicable, under oversight by a project wetland scientist. The secondary access roads and temporary staging areas shown in the design drawings were sited to minimize impacts to mature trees. However, the actual locations and extents of the access routes and staging areas may change based on input from the selected contractor. Following contractor selection and after determining the final locations and extents of the secondary access roads and temporary staging areas, GE will conduct an inventory of all trees and shrubs (including species and size) and other significant vegetation anticipated to be removed or

[23] The woody debris inventoried during the baseline ecological surveys, as reported in Appendix C, will be referenced during this pre-test inventory.

significantly damaged due to the pilot test construction activities. A scaled drawing showing the approximate locations of the trees and shrubs and other significant vegetation in areas that may be affected by the pilot test activities will be prepared as part of this inventory.

Based on the results of this inventory, an Adjacent Area Site Restoration Plan, which will include a planting plan for impacted areas outside of the test vernal pools, will be developed and presented in the SIP for EPA review and approval. This plan will provide the following information:

- A scaled figure depicting the planting areas;
- A tabulated listing (by species and quantity) of the trees and shrubs and other vegetation to be installed within each planting area (which will include an identification of appropriate alternate species native to Berkshire County to replace any non-native or invasive species identified during the tree and shrub inventory); and
- Detailed planting specifications (e.g., stock size and fertilization requirements) for the trees and shrubs and other vegetation to be installed.

Prior to completion of the vegetation-related restoration, topsoil placement may be required to restore adjacent areas impacted by construction activities to pre-construction elevations. For example, if the work results in significant consolidation of soils such that the surface water flow or ecological integrity of the area is significantly impacted, topsoil will be placed to restore the area to the original grade. The need for such backfilling will be determined by a project wetland scientist and will be subject to EPA approval, and the backfilling (if necessary) will be conducted under the oversight of a project wetland scientist.

5.6 Potential Impacts on Rare Species and Measures to Address Them

As specified in Table 7-6 of the *Revised Housatonic River Reach 5A Baseline Restoration Assessment Report* (AECOM 2024a), a total of 12 plant and animal species listed by MNHESP as threatened, endangered, or of special concern have MNHESP-mapped Species Habitat that encompasses the vernal pools in Reach 5A. Those species could utilize the vernal pool habitats based upon the habitat requirements of these species, and the habitat conditions documented in the vernal pools in Reach 5A. These species are listed in Appendix C and include two bird species, seven plant species, one turtle, and two insects. In addition, based on consultation with the U.S. Fish and Wildlife Service's Information for Planning and Consultation, two bat species that are federally listed or proposed for federal listing as endangered and that are also state-listed—namely, the northern long-eared bat and the tricolored bat—may use these habitats. While investigations to date have not recorded the presence of any federal- or state-listed species (referred to herein as rare species) within any vernal pools in Reach 5A, the potential for each of these species or any other federal- or state-listed species to occur within each of the vernal pool remediation and support areas, including temporary access

road and staging areas, will be further evaluated during the rare species surveys being conducted in Reach 5A in 2025 in accordance with GE's February 3, 2025 *Supplemental Data Collection Work Plan Addendum* (Anchor QEA 2025) and the May 2, 2025 supplement to it (GE 2025). Upon completion of those surveys, a revised assessment will be made of the potential presence of or habitat for any federal- or state-listed rare species within any of the proposed work areas for the vernal pool pilot study and whether any site-specific measures are warranted to minimize impacts on rare species.

In addition, as discussed in Section 8.1, prior to the initiation of on-site construction, screening will be conducted for the presence of wood turtles (*Glyptemys insculpta*), a state-listed rare species that is documented to occur in Reach 5A, in all areas to be impacted by construction activities. Any such turtles encountered will be removed from the area. Also, a construction-phase management plan will be developed and implemented to minimize potential construction-related impacts to the wood turtle, which could use vernal pool habitats during the active period (non-hibernating) from April through October. Minimization measures to address potential impacts on these and (as necessary) other rare species in the area will be described in a Rare Species Mitigation Plan, which will be included in the pilot study SIP, discussed in Section 6.2.

5.7 Equipment Cleaning

Equipment that contacts PCB-impacted soil during the pilot study construction activities will be subject to cleaning and inspection. Equipment cleaning will be performed consistent with Section 3.5 of the Site Management Plan (Attachment C to the POP) and as described in Specification Section 02 51 00 – Decontamination of Equipment (Appendix F). At a minimum, the following equipment cleaning procedures will be performed during the pilot study construction operations:

- During mobilization activities, all heavy equipment (e.g., excavators, loaders, and trucks) to be used on site will be subject to a visual inspection to verify that the equipment is generally clean and free of excess soil. Entry to the project work area will be refused until such time that the equipment has been adequately cleaned and subsequent visual inspection indicates satisfactory conditions.
- An equipment cleaning area will be constructed and used by the contractor and will generally consist of an impermeable barrier that is sloped to a collection sump.
- Tire cleaning stations will be established at the three locations where the temporary access roads egress onto public roads and at the location where the temporary access road egresses onto the existing gravel roads at the Miss Hall's School property. Tire cleaning will be completed on vehicles exiting the work area. The tire cleaning standard is that vehicles requiring decontamination will be cleaned sufficiently to remove all visible solids and sediment from the vehicle body, undercarriage, and tires such that no visible tracking of soils onto roadways occurs. Each transport vehicle will be visually inspected prior to leaving the

work area. Soil accumulations on the vehicle tires or other exterior surfaces will be removed manually or by using a high-pressure water spray.

- Material handling equipment that has been used to remove or handle PCB-containing soils will be cleaned in an equipment cleaning area before it: (1) handles non-TSCA/non-RCRA materials after having handled TSCA/RCRA materials; (2) handles "clean" materials (e.g., backfill); or (3) is demobilized from a specific work area. The equipment cleaning standard for equipment that will remain on site and may be used for other operations involving the handing of non-TSCA materials or backfilling is the removal of all visible soil and sediment on the surface of the equipment. The extent and method of cleaning will be determined by the contractor consistent with the POP, and the equipment will be inspected by a GE construction manager prior to its departure from each vernal pool work area.
- Prior to being demobilized from the site, equipment used for handling PCB-impacted materials (e.g., excavators and loaders) will be subject to wipe sampling following final equipment cleaning. The equipment cleaning standard for equipment that will no longer be used on the project is the removal of all visible soil and sediment and power-washing of surfaces so the cleaned surface can be wipe-tested to confirm that PCB levels on the surface of the equipment are less than 10 micrograms per 100 square centimeters.

5.8 Cultural Resource Considerations

As discussed in the *Revised Phase IB Cultural Resources Survey Work Plan for Reach 5A* (AECOM 2024b), although there are several vernal pools requiring remediation within the overall mapped boundaries of the areas of high archaeological sensitivity in Reach 5A, those inundated and seasonally wet areas are not themselves considered to have high archaeological sensitivity. As discussed in the archaeological sensitivity model (Glover et al. 1994) suggested by the Massachusetts Historical Commission and noted in the *Revised Supplemental Phase IA Cultural Resources Assessment Report for the Housatonic Rest of River* (AECOM 2023), regional studies have shown that archaeological sites are most frequently associated with level, slightly elevated areas of well-drained soils, rather than being located in poorly drained and wet, depressed terrain such as vernal pools. Thus, with EPA's approval, the footprints of the vernal pools in Reach 5A were not included in the Phase IB cultural resources survey program.

On June 23, 2025, GE submitted a *Revised Phase IB Cultural Resources Survey Report for Reach 5A* (AECOM 2025) that described the survey activities that GE conducted in 2024 in potentially affected areas in Reach 5A that contain or have a high potential to contain cultural resources to determine whether archaeological sites or other potentially significant cultural resources could be impacted by remediation and support activities in Reach 5A. Based on those surveys, the vernal pools and

proposed staging and access areas in the pilot study are not located near any identified archaeological sites or other potentially significant cultural resources.[24]

Based on current information, cultural resources are not anticipated to be encountered during implementation of the vernal pool pilot test. However, if cultural resources are encountered, the procedures specified in the Cultural Resources Unanticipated Discoveries Plan included in Appendix H will be implemented.

5.9 Flood Storage Capacity

For the removal-based pools, backfill will be placed to restore the ground surface elevation to the original grade or slightly lower, as discussed in Section 5.5.7. For the amendment-based pools, the thickness of the amendments placed will be only approximately 0.4 to 0.6 inches. Given this minimal thickness and the small area of the amendment-based pools relative to the much larger area of the overall floodplain, the pilot study will not result in an appreciable loss of flood storage capacity in the Housatonic River floodplain.

5.10 Sustainability Considerations

GE previously prepared a *Sustainability and Climate Adaptation Plan* (Anchor QEA 2022d) that was submitted to EPA on September 16, 2022, and conditionally approved by EPA on January 27, 2023. That plan described potential measures to be implemented to ensure that remediation activities in the ROR are designed and constructed to be resilient to potential impacts from climate change and will incorporate, where practicable and appropriate, methods to minimize greenhouse gas emissions. EPA's conditional approval letter on the *Sustainability and Climate Adaptation Plan* directed GE to provide design details and measures to be implemented to provide climate resiliency and sustainability in a specific section in the Conceptual and Final RD/RA Work Plans for each Remediation Unit.

Because the activities described in this work plan are only for pilot testing and the activities to be completed are relatively small in scale, GE has determined that no specific assessment of climate resiliency and sustainability is necessary for this pilot study.

[24] GE will be conducting additional cultural resource surveys in 2025 in additional remediation and support areas in Reach 5A that were identified as a result of EPA's December 3, 2024 conditional approval letter for the Reach 5A Conceptual RD/RA Work Plan. If those additional surveys should identify potentially significant cultural resources in or near the pilot study vernal pools or associated support areas, GE will so advise EPA and present a plan to address those resources.

6 Contractor Selection, Supplemental Information Package, and Project Closeout

6.1 Contractor Selection and Submittals

Following EPA approval of this Final Pilot Work Plan, GE will select a construction contractor that is qualified to conduct the pilot test construction activities. Prior to the selection of a construction contractor, GE will perform a contractor qualification process to ensure the contractor is qualified to perform the proposed construction-related activities. This qualification process will include a review of the contractor's experience (and that of any subcontractors, as appropriate) on projects of similar scope and magnitude. The contractor will also be required to demonstrate that, at a minimum, its project manager, quality control manager, safety manager, and field foreman have experience with similar types of construction projects and are familiar with the activities required as part of this project.

To accomplish this, GE will provide prospective contractors with appropriate documentation that describes the pilot study project, provides the Design Drawings and Design Specifications for completing the work, and solicits proposals from the prospective contractors. After appropriate review of the proposals, GE will select a contractor for the pilot study implementation.

Once selected, the contractor will be required to provide certain pre-mobilization submittals to demonstrate that the contractor: (1) has an adequate understanding of the scope of the project; (2) has developed a project-specific sequence that can efficiently perform all on-site activities within the allowable schedule; (3) will utilize acceptable materials, products, and procedures; and (4) will perform all activities in a manner that is protective of on-site workers and the surrounding community. Certain submittals relate to the manner in which the work activities will be implemented and, as such, will supplement the information and procedures presented in this work plan.

The submittals to be required of the construction contractor include an Operations Plan, a Health and Safety Plan, and a Contingency Plan. In addition to these submittals, the construction contractor will be required to provide GE with various other submittals throughout the course of this project as specified in the Design Specifications (Appendix F). The overall purpose of these submittals is to verify the materials and procedures used in the work activities are consistent with the project design. In accordance with the POP, all contractor submittals will be tracked to confirm receipt and approval.

6.2 Supplemental Information Package

Following the retention of a construction contractor, GE will prepare a SIP and submit it to EPA. The purpose of the SIP is to provide a detailed description of the means and methods, control measures, and best management practices to be implemented as part of the pilot study construction activities

based on input from the construction contractor. This plan will be prepared by GE and will include (at a minimum) the following:

- Site-specific Stormwater Pollution Prevention Plan;
- Section on Site Management and Security (as discussed in Section 5.2.2), which will discuss site management and security measures that are developed in concert with the construction contractor;
- Adjacent Area Site Restoration Plan that includes a restoration and planting plan for impacted areas outside of the vernal pools, including the adjacent temporary staging areas and access roads;
- Rare Species Mitigation Plan;
- Operations Plan, based on input from the construction contractor, which will provide a detailed description of the means and methods, control measures, and best management practices to be implemented as part of the pilot test activities. At a minimum, this will include the following:
  - Proposed methods, control measures, best management practices, and monitoring to maintain compliance with the QOL standards and requirements, including those for air quality, visible dust, odor, noise, and lighting (see also Section 7);
  - Proposed approach for spill prevention and response, site traffic, access, and security;
  - Proposed approach to access each pilot test area and project layout plans (e.g., access roads, temporary staging areas, and construction methods);
  - Proposed approach for installation, monitoring, and maintenance of erosion and sedimentation controls;
  - Proposed means and methods for soil removal, materials handling and staging, and backfilling;
  - Proposed means and methods for amendment application and mixing, including details regarding and specialized equipment, tools, and methods for mechanical mixing of amendment into the vernal pool soils;
  - Proposed water management methods and approach;
  - Proposed waste management approach;
  - Figures showing the contractor's proposed survey control points/grid; and
  - Proposed equipment cleaning procedures.

- Contingency Plan, based on input from the construction contractor, which will define responses to potential emergencies, standard exceedances, or other contingencies that may arise during the construction work to aid site personnel in responding quickly and effectively and to protect workers and the local community in the instance of such an event;
- Any revisions to the *Site Health and Safety Plan GE-Pittsfield/Housatonic River Site* (Arcadis 2023a), based on input from the construction contractor, that relate to implementation of the vernal pool pilot study;
- A detailed construction schedule, based on input from the construction contractor, which will incorporate production rates and sequencing of specific equipment and the approach selected by the contractor;
- Information on imported backfill material sources, including details related to the material sources, their locations, results of laboratory testing, and transportation routes to the work site; and
- Information on the facilities that will be used for off-site disposal of waste materials, including the facility names, locations, permit/approval status, waste streams, and transportation routes.

The above-mentioned Contingency Plan will set forth procedures for responding to emergency conditions or events that may occur during the performance of the pilot test construction. It will include the following information:

- A Spill Prevention Control and Countermeasures Plan;
- Weather tracking procedures and site protection activities to be performed in case of precipitation warnings or events;
- Emergency vehicular access/egress;
- Procedures for evacuation of personnel from the work site;
- A Flood Control Contingency Plan identifying measures to protect the pilot study sites from impact in the event of high water and/or flood conditions;
- A list of all contact personnel, with phone numbers and procedures for notifying each;
- Routes to local hospitals; and
- Identification of responsible personnel who will be in a position at all times to receive incoming phone calls and to dispatch contractor personnel and equipment in the event of an emergency situation.

6.3 Project Closeout and Reporting

Once GE has determined that the vernal pilot test construction activities are complete, GE will schedule and conduct a pre-certification inspection with EPA. After completion of the pre-certification inspection, GE will proceed with the development and submittal of a Vernal Pool Pilot Study Construction Completion Report to summarize and document the scope of the completed pilot test construction.

Subsequently, following the completion of the post-construction monitoring described in Section 8, GE will prepare and submit the Vernal Pool Pilot Study Summary Report described in Section 4.2.3.2 of the Final Revised SOW, which will summarize the overall results of the pilot study and provide recommendations regarding the method of remediation for other vernal pools in the ROR floodplain that require remediation. That report is described further in Section 9.

7 Quality of Life Considerations

The pilot study construction work will be performed in compliance with the QOL standards for air quality, visible dust, noise, odor, and lighting that were established in the QOL Compliance Plan, which was approved by EPA on May 28, 2025. This section discusses compliance with the QOL standards generally and describes the air monitoring activities to be conducted during the pilot study.

7.1 General

The selected contractor will implement methods, controls, and other mitigation measures, as needed, to maintain compliance with the QOL standards in accordance with Specification Section 01571 – Operations Environmental Restrictions and Controls (Appendix F). Details on the proposed methods and controls measures to be implemented by the contractor will be provided in the SIP.

The nearest properties that may be affected by the pilot study construction activities are as follows:

- Residential properties located west of Pomeroy Avenue and north of test pools 5A-VP-4, 5A-VP-7, 5A-VP-9, 5A-VP-15, and 5A-VP-16;
- Residential properties near the work area entrance along Pomeroy Avenue;
- Miss Hall's School located south of test pool 5A-VP-12;
- Residential properties located west of test pools 5A-VP-22 and 5A-VP-27 and along the temporary access road south of Holmes Road to these pools;
- Residential properties located northwest of test pools 5A-VP-52 and 5A-VP-57

GE's construction manager or a third-party contractor retained by GE will perform air quality monitoring and noise monitoring to demonstrate compliance with the applicable QOL standards and, as warranted, to respond to project-related complaints. Monitoring for compliance with the QOL standards will be conducted in accordance with the QOL Compliance Plan as well as the Ambient Air Monitoring Plan and Construction Monitoring Plan (Attachments D and G to the POP, respectively). The approximate locations for air quality monitoring for PCBs and particulates are shown on the Design Drawings (Appendix E). Additional details pertaining to air monitoring are provided in Section 7.2. Noise monitoring locations and timing will be determined in the field in consultation with EPA and the contractor based on the implementation plan and schedule.

If any QOL standards are exceeded or a project-related complaint is received that requires corrective action, GE will work with the contractor to implement controls and any necessary mitigation measures to address the exceedance or complaint in accordance with the applicable requirements of the QOL Compliance Plan.

During pilot test construction activities, the work areas and temporary access roads to the test pools will be closed to public access. As described in Section 5.2.2., restricted work areas will be marked with appropriate signs and/or fencing. In addition, descriptive panels (designed by GE in coordination with EPA) will be installed at entrances to restricted areas to describe the construction activities and to inform the public on how to find additional information on the project website and how to receive relevant notifications. GE will provide notice of pilot test activities and affected recreational areas and uses through a community notification program described in Section 7.1 of the QOL Compliance Plan and will address any complaints as described in Section 7.2 of that plan.

The QOL Compliance Plan provides additional information on measures to mitigate potential impacts from increased traffic. It specifies that the existing local roads that are part of the EPA-approved routes will be evaluated to determine the need for and type of reconditioning and upgrading of the roads and associated infrastructure to make them suitable for truck traffic. It also specifies that pre-construction, during-construction, and post-construction assessments will be performed to assess the condition of the local municipal roads and associated infrastructure (e.g., bridges and culverts) along the approved travel routes. GE has prepared a Road Assessment Work Plan, submitted to EPA on June 26, 2025, which describes the proposed road assessment activities. The anticipated truck traffic associated with the pilot test will be relatively minor compared to that during the full-scale remediation. The estimated pilot test excavation volume of approximately 1,340 cubic yards of soil and 1,340 cubic yards of subsequent backfill result in a total of only approximately 250 truck trips, assuming a dump truck capacity of 16 tons and a soil density of 1.5 tons/cubic yard. Additional truck traffic will also occur for equipment and material deliveries. The roads planned for transport of excavated materials to off-site disposal facilities as part of the vernal pilot test have been included in GE's Road Assessment Work Plan.

7.2 Air Monitoring

Construction activities to be performed during the pilot test could result in the generation of airborne particulates (i.e., dust) or PCB emissions. Activities that could result in PCB and airborne particulate emissions include soil excavation, soil staging and handling, handling and application of amendments, mechanical mixing of amendments with vernal pool soils, and vehicle traffic along temporary access roads. Additional activities that could result in generation of airborne particulates include management and placement of backfill material, handling and placement of amendments, and vehicle traffic on improved roads (e.g., on the Miss Hall's School property).

Air monitoring will be performed during pilot study construction by a firm other than the primary construction contractor. Air monitoring and compliance will be consistent with the QOL Compliance Plan and the Ambient Air Monitoring Plan (Appendix D to the POP). Specific procedures for ambient air sampling are provided in Appendix G (Standard Operating Procedure for Ambient Air Monitoring

for Particulate Matter and Polychlorinated Biphenyls) to GE's 2023 *Field Sampling Plan/Quality Assurance Project Plan* (FSP/QAPP) (Arcadis 2023b).

The compliance point for attainment of the ambient air standards will be at the closest downwind receptor. Ambient air monitoring will be conducted at representative locations near the closest receptor to the remediation activities or between the active work areas and the closest receptor. During active remediation activities, ambient air monitoring will be performed at a minimum of three locations around the work area. Specific air quality monitoring locations were developed based on the above-referenced documents and are shown on the Design Drawings (Appendix E). Specifically, air monitoring locations were identified for three areas of the project, as shown in the Design Drawings:

- North Project Area—six vernal pools with seven proposed monitoring locations;
- Central Project Area—two vernal pools with four proposed monitoring locations; and
- South Project Area—two vernal pools with three proposed monitoring locations

Actual monitoring locations may vary from those shown in response to site conditions, property access, property owner request, or the locations of active operations.

During implementation of the vernal pool pilot study construction, the primary constituent subject to ambient air monitoring will be particulate matter smaller than 10 micrometers in diameter (PM_{10}). Air monitoring for PM_{10} will be conducted during all construction activities that may generate particulate matter. Ambient air monitoring of PM_{10} will be conducted daily during construction activities for a minimum of 10 hours when construction is ongoing and throughout the duration of daily construction activities. If construction activities are ongoing for longer than 10 hours, particulate monitoring will continue until daily activities are complete. As described in the QOL Compliance Plan and Ambient Air Monitoring Plan, particulate monitoring will be performed using real-time meters with dataloggers to obtain continuous readings for determining the 10-hour average, which will be compared with the PM_{10} Notification and Action Levels.

Ambient air monitoring for PCBs will be conducted during construction activities that may result in generation of PCB emissions, as listed above. PCB monitoring will be conducted in accordance with EPA Method TO-10A, which is a low-volume method used in locations when there is no site power available. Baseline ambient air monitoring for PCBs will be conducted to assess conditions prior to implementation of remediation activities. A minimum of two baseline monitoring events will be conducted for PCBs within a few weeks of each other prior to the start of the vernal pool pilot study construction activities. The following locations will be used for baseline PCB air monitoring:

- North Project Area: VPN-1, VPN-3, VPN-5, and VPN-7 (Drawing AM01);
- Central Project Area: VPC-1 and VPC-3 (Drawing AM02); and

- South Project Area: VPS-1, VPS-2, and VPS-3 (Drawing AM03).

At the start of pilot study construction activity that may generate PCB emissions and each new type of such activity, sampling for PCBs will be conducted for two sequential 24-hour periods (i.e., back-to-back). New types of construction activities include initiation of soil excavation and handling activities at each of the five removal-based vernal pools; initiation of significant construction vehicle traffic in the north, central, or south project areas; and initiation of amendment mixing.

If monitoring indicates that air levels are acceptable (i.e., are below the PCB Notification Level), the monitoring frequency will be reduced to one 24-hour monitoring event weekly for each area of active construction or work activity for the duration of that activity. If monitoring indicates that air levels are not acceptable (i.e., are above the Notification or Action Level specified in the QOL Compliance Plan), the actions specified in Section 4.3.3.1 (for a Notification Level exceedance) and/or Section 4.3.3.2 (for an Action Level exceedance) of the QOL Compliance Plan will be implemented.

If the total duration of active construction or work activity is less than one week, then one sampling event will be completed. Monitoring for two sequential 24-hour periods will be reinstituted when a new type of pilot study construction activity (defined above) occurs in an area.

As described in the QOL Compliance Plan, GE will install a meteorological monitoring station at the GE Plant site and operate it throughout the duration of the pilot study construction activities. The station will include monitoring of precipitation, wind speed, wind direction, barometric pressure, temperature, and relative humidity. As a backup to the on-site station, meteorological data from the Automated Surface Observation System (ASOS) Monitor at the Pittsfield Municipal Airport in Pittsfield, Massachusetts, will be used in the event that the station at the GE Plant site is not functioning or there is a power interruption. This ASOS Monitor is operated by the National Weather Service, Federal Aviation Administration, and the Department of Defense. The ASOS Monitor measures and records wind speed, wind direction, precipitation, temperature, sky conditions, barometric pressure, and relative humidity.

8 Pilot Study Monitoring and Evaluation

Pilot study monitoring will include monitoring before, during, and after implementation of the pilot study in the amendment-based and removal-based pools as summarized in this section. The post-construction monitoring program is further detailed in the *Vernal Pool Pilot Study Performance Monitoring Plan* (Appendix I).[25]

In addition to the monitoring discussed in this section, if a major flood event were to occur during the pilot study implementation period, additional monitoring may be performed (beyond the during-construction monitoring described herein) to evaluate any impacts on the pilot study implementation. The type of monitoring to be performed would be dependent on the severity and duration of the flood event and would be discussed with EPA. Further, in connection with or based on the results of such monitoring, GE would discuss with EPA potential options for addressing any impacts of the flood given the severity and duration of the flood event. This contingency will be discussed in more detail in the Flood Control Contingency Plan to be included in the Contingency Plan in the SIP, as discussed in Section 6.2.

8.1 Pre-Construction Screening for Rare Species

Prior to the initiation of on-site construction of pilot study activities, screening will be conducted for the presence of wood turtles, a state-listed rare species, in all areas to be impacted by construction activities. This screening will be conducted by a qualified biologist in all access, staging, and vernal pool construction areas to search for wood turtles. This will include review of any available radio transmitter data on wood turtle activity in Reach 5A that have resulted from the currently ongoing wood turtle surveys being conducted in Reach 5A in accordance with the wood turtle SOP submitted by GE (GE 2025) and approved by EPA. Any wood turtles encountered during such sweeps will be relocated to suitable habitat outside of active construction areas. Any turtles encountered will be documented and handled consistent with the protocol specified in the current wood turtle SOP approved by EPA and in consultation with MNHESP.[26]

Any other federal- or state-listed faunal species encountered during the site preparation or the pilot program itself will be documented. As noted in Section 5.6, such potential rare faunal species (birds, bats, and moths/butterflies) are generally mobile and would avoid direct construction activities and thus do not require pre-screening. Any state-listed plant species in the pilot study areas will have been identified by the rare plant surveys to be conducted in Reach 5A in 2025 in accordance with the

[25] That plan also includes supplemental baseline monitoring of PCBs in porewater in the amendment-based vernal pools, as noted in Section 4.3 of this Final Pilot Work Plan.

[26] In addition to this pre-construction screening, as discussed in Section 5.6, it is anticipated that a construction-phase management plan will be developed and implemented to minimize potential impacts to the wood turtle during the pilot study, as will be described in the Rare Species Mitigation Plan to be included in the pilot study SIP (see Section 6.2).

approved rare plant survey SOPs (GE 2025) in advance of the vernal pool pilot study construction activities. Any additional observations of state-listed plant species will be cataloged and located by global positioning system instrumentation for reporting to MNHESP.[27] All encounters with or observations of state-listed faunal or plant species will be documented and reported to MNHESP using its online portal, Heritage Hub.[28]

8.2 Amendment-Based Pool Monitoring

8.2.1 Monitoring During Construction

Construction monitoring during amendment application will focus on amendment placement verification and vegetation monitoring to evaluate the effects of amendment-based construction activities. A summary of this monitoring is provided as follows.

Verification monitoring will be completed immediately following the amendment placement in each pool to verify achievement of the target amendment dose, as discussed in Section 5.4 and detailed in Specification Section 35 20 26 – Amendment Placement (Appendix F).

In addition, visual observation of vegetation conditions will be conducted prior to, during, and immediately following application of amendments. This visual monitoring will be conducted to document effects on vegetation in the amendment application area.

8.2.2 Post-Construction Monitoring

Post-construction monitoring in the amendment-based pools will include the following:

- Periodic post-construction PCB porewater sampling at three months, six months, one year, two years, and three years after completion of the amendment application;
- Periodic sampling and analysis for soil AC content at three months, six months, one year, two years, and three years after completion of the amendment application;
- Periodic post-construction ecological monitoring at three months, six months, one year, two years, and three years after completion of the amendment application; and
- Periodic post-construction surface water monitoring for water quality characteristics (pH, temperature, alkalinity, hardness, and dissolved oxygen) at one week, two weeks, three weeks, one month, three months, six months, one year, two years, and three years after completion of the amendment application.

[27] The occurrence of any observed or encountered state-listed plant species in the construction area will be addressed, as necessary, in the Rare Species Mitigation Plan in the SIP.

[28] Available at: https://www.mass.gov/info-details/heritage-hub-overview

This monitoring program is detailed in the *Vernal Pool Pilot Study Performance Monitoring Plan* (Appendix I). The post-construction porewater PCB and AC monitoring and the ecological monitoring are summarized below.

8.2.2.1 Porewater PCB and AC Monitoring

This post-remediation monitoring program will involve the collection and analysis of soil porewater PCB samples, using the same or similar methods and locations as those used during the baseline monitoring program described in Section 4. As noted above, post-remediation porewater monitoring of the vernal pools subject to amendment-based remediation will be initially conducted three times during the first year following treatment and then annually (starting one year following completion of construction) for a period of three years to allow for equilibration of porewater PCBs with the amendment and the identification of yearly variance in chemical parameters. The annual post-remediation monitoring events will be conducted during the same time of year as the baseline monitoring to control for potential seasonal variations. The post-remediation monitoring data will be reviewed on a yearly basis to evaluate progress towards achievement of the porewater performance criterion and the need for any maintenance.

As discussed in Section 2.2, following surface application of the amendment, it is anticipated that the amendment will be incorporated into the subsurface over time via natural processes such as bioturbation and burial due to new sediment inputs and leaf litter deposition/decomposition. As described in Section 2.2, the rate and degree to which bioturbation will mix the PAC into the native soils within the vernal pools are not known; therefore, PCB porewater will be monitored at two depth intervals – namely, 0 to 3 inches below ground surface and 0 to 6 inches below ground surface. Because natural mixing of amendment into the vernal pool soils is expected to occur slowly, the initial sampling events at three-months and six-months post-construction will include sampling only of the shallower 0- to 3-inch interval. The annual sampling events (one, two, and three years after construction) will sample both the 0- to 3-inch and the 0- to 6-inch sampling intervals.

As described in Section 2.2, the compliance depth over which the porewater criterion will be applied will be influenced by observed mixing depths throughout the vernal pools. Thus, in addition to the analysis for PCBs in porewater, measurements of AC (a form of black carbon) will be made using the method developed by Grossman and Ghosh (2009) for quantification of AC and other black carbons. AC content will be evaluated in one-inch intervals to evaluate AC mixing depth over time. Since the Grossman and Ghosh method quantifies black carbon inclusive of AC, measurement of the background black carbon content will be conducted at all monitoring stations prior to the amendment application.[29] Measurement of AC will be made immediately following amendment

[29] While it is unlikely that significant native black carbon is present in the vernal pools, black carbon is naturally occurring in many environments and should be characterized prior to measuring in-situ AC content.

application, and then on the same frequency as the porewater PCB sampling (i.e., three months, six months, one year, two years, and three years after completion of the amendment application).

Sampling for AC will be conducted at the same locations as the porewater PCB monitoring. At each sampling location, soil sampling will be conducted by advancing a three-inch core tube, extracting the material, and sectioning the core material into one-inch intervals or else by removing soil in one-inch intervals using a hand trowel (or similar device) in accordance with the SOP for vernal pool soil sampling in Appendix D to the 2023 FSP/QAPP (Arcadis 2023b). All sampling locations will be located and recorded using a differential global positioning system.

8.2.2.2 Ecological Monitoring

As noted above, post-remediation ecological monitoring of the vernal pools subject to amendment-based remediation will be initially conducted three times during the first year following treatment and then annually (starting one year following completion of construction) for a period of three years. The annual post-remediation monitoring events will be conducted using the same methods and during the same time of year as the baseline ecological survey to control for procedural differences and potential seasonal variations. The ecological monitoring will involve surveys of amphibian egg masses and fairy shrimp; surveys of the hydrology and topography of the pools; surveys of amphibian larval development and recruitment and of macroinvertebrate community structure; and surveys of the soils and vegetation in the pools, including an assessment of invasive plant species colonization. This monitoring is described in Section 4.3 of the *Vernal Pool Pilot Study Performance Monitoring Plan* (Appendix I). The post-remediation monitoring data will be reviewed on a yearly basis to evaluate progress towards achievement of the ecological performance criterion and the need for any maintenance.

In addition, as described in Section 4.4 of the *Vernal Pool Pilot Study Performance Monitoring Plan* (Appendix I), water depths and hydroperiod will be monitored in these vernal pools throughout the designated vernal pool breeding period. This monitoring will be used to assess the effects of the amendment placements on vernal pool hydrology. Both the depth and duration of surface water flooding in such pools will be compared to those in control pools, as well as to background data on hydrology in such pools, to assess whether there are any hydrologic impacts associated with amendment additions on the breeding habitat suitability. This hydrologic impact assessment will require the consideration of multiple natural factors, which in combination could affect the depth and duration of flooding (in addition to any effects of the pilot study), as discussed in Section 4.4 of the *Vernal Pool Pilot Study Performance Monitoring Plan*.

Finally, the amendment-based pools will be monitored for water quality characteristics (specifically pH, temperature, alkalinity, hardness, and dissolved oxygen). These data will be collected using a YSI field meter (or similar) once per year during the spring flooding period of each pool.

8.3 Removal-Based Pool Monitoring

8.3.1 Monitoring During Site Preparation and Construction

During the site preparation phase, any specific habitat features that are to be avoided and preserved (e.g., trees, downed woody debris, or standing dead trees) will be identified, and procedures to afford their protection will be reviewed and implemented prior to initiating any clearing or excavation activities.

During construction, verification of the vernal pool soil removal and backfilling operations will be performed as described in Specification Section 31 23 00 – Excavation and Fill (Appendix F). During excavation, surveying will be performed to verify that removal is completed in accordance with the design requirements. Imported soil materials to be used as backfill will be subject to testing and visual examination to verify compliance with the specifications. Surveying and visual examination of the work area will also be conducted to verify that backfilling operations adequately re-establish the pre-excavation topography to preserve the original configuration of depressional areas and swales within and near the vernal pool that contribute to surface water conveyance to the pool, soil moisture, and overall habitat conditions.

During restoration, monitoring will be conducted of seeding and planting and other restoration activities to verify compliance with the design requirements. This will include counts of planted shrub and tree species and verification of seeding content and rates.

8.3.2 Post-Construction Monitoring

Post-construction monitoring will focus on evaluating the success of planting and seeding, as well as assessment of any colonization of invasive plant species. In addition, the same surveys conducted during baseline monitoring will be repeated. Specifically, the same post-construction ecological monitoring, water depth/hydroperiod monitoring, and surface water characteristic monitoring described in Section 8.2.2.2 for the amendment-based pools will be conducted in the removal-based pools, with the addition of the collection of soil profile descriptions to assess the development of hydric soil conditions in the top 12 inches. Post-remediation monitoring for the vernal pools subject to removal will be conducted annually (starting one year following completion of construction) for three years to assess yearly variance in ecological parameters. This monitoring will be conducted during the same season as the baseline monitoring and ecological surveys to control for seasonal variations. Details on the post-construction performance monitoring for the removal-based pools are included in the *Vernal Pool Pilot Study Performance Monitoring Plan* (Appendix I). No additional soil PCB sample collection and analysis will be performed in the pilot study pools subject to removal.

8.4 Control Pool Monitoring

To aid in the assessment of results in both amendment-based and removal-based pools, monitoring will also be conducted in the seven control pools during each of the three monitoring years. This monitoring will include the same ecological monitoring, water depth and hydroperiod monitoring, and surface water characteristic monitoring as described in Section 8.2.2.2. This monitoring of control pools is also discussed in Sections 4.3 and 4.4 of the *Vernal Pool Pilot Study Performance Monitoring Plan* (Appendix I).

8.5 Application of Performance Criteria

Post-remediation monitoring data collected from the test pools will be evaluated against the applicable porewater and ecological performance criteria described in Section 2.

For the amendment-based pools, in-situ passive samplers will be used to evaluate the reduction of soil porewater PCB concentrations and achievement of the porewater performance criterion. These in-situ passive samplers will be deployed and used in accordance with GE's SOP for Measurement of Hydrophobic Organic Contaminants in Sediment Porewater by In-Situ Solid Phase Microextraction (Appendix E2 to the 2023 FSP/QAPP [Arcadis 2023b]). Any pools receiving amendment placed directly on the vernal pool soil, either as a discrete thin layer or mixed into the surficial pool soils, are expected to require greater than one year for the amendment to mix and equilibrate with the vernal pool soils and produce the desired reductions in porewater PCB concentrations.

As discussed in Section 2.2, the purpose of in-situ treatment is to reduce the bioavailability of PCBs in porewater to achieve the porewater-based performance criterion, which was derived to be protective of amphibians based on toxicity studies of wood frog Phase III metamorphs. The depth over which that performance criterion is applied should be consistent with the depth over which the organisms to be protected may be exposed. Measurements of PAC mixing depths over time and porewater PCB concentrations over multiple intervals, as discussed in Section 8.2.2, will be used to further evaluate the appropriate depth over which the porewater criterion should be applied. Since the mixing is primarily a result of bioturbation, the observed long-term mixing depths at the conclusion of the three-year monitoring period will be indicative of the depth of biological exposure and will, therefore, be used to develop the appropriate depth over which the porewater criterion should be applied.

Removal-based remediation will remove existing contaminated soil and replace it with clean backfill. As a result, the removal-based alternatives will achieve the removal-based PCB performance criterion (i.e., the Revised Final Permit performance standard of 3.3 mg/kg) immediately following construction.

For all alternatives, the results of the ecological monitoring performed in the test pools during the post-remediation period will be compared to pre-remediation conditions to evaluate impacts of amendment application or removal and restoration activities on the vernal pool environments. Those results will also be compared to the results from one or more of the control pools, as well as to historical data, to assess whether any observed deviations from pre-remediation conditions are a result of the remediation activities or natural year-to-year variation. These comparisons will be used to assess achievement of the ecological performance criterion specified in Section 2.3.

This information will be used to facilitate selection of remediation approaches for the remainder of the vernal pools in Reach 5A (and eventually for vernal pools identified in downstream reaches). If both approaches are shown to be able to meet the established performance criteria, other factors (such as sensitive habitat or ease of access) will be used to determine which remedial approach (amendment-based or removal-based) is best applied to the remaining vernal pools.

8.6 Performance Monitoring Reporting

Results from the first and second years of post-construction monitoring will be provided to EPA on an annual basis. Each such annual monitoring report will include a discussion of monitoring methods, a summary of the chemical and ecological results and observations, comparisons to chemical and ecological performance criteria, and any recommendations for response actions or revisions to the pilot study monitoring program. If the pilot study monitoring indicates the pilot study methods are not working as intended or if it appears the remediation may not achieve the performance criteria, a contingency plan will be developed by GE within the context of adaptive management to modify or adjust the pilot study monitoring program or other pilot study methods, as appropriate. Eventually, all results will be presented in the Vernal Pool Pilot Study Summary Report described in Section 4.2.4 of the Final Revised SOW and in Section 9 of this Final Pilot Work Plan .

9 Pilot Study Implementation Schedule and Reporting

Upon EPA approval of this Final Pilot Work Plan, GE will implement the pilot study construction activities described herein.

Based on consideration of the relative timing for implementation of the pilot study construction and post-construction monitoring for the amendment- and removal-based pools, the removal-based and amendment-based treatment activities in the pilot study will be performed concurrently. Depending on the timing of EPA approval of this Final Pilot Work Plan, implementation of the vernal pool pilot study (i.e., excavation activities and placement of amendments) is anticipated to be conducted in 2026 and prior to initiation of remediation in Reach 5A. It is anticipated that pilot study construction activities will be conducted beginning no earlier than July or when pools become free of standing water to avoid disrupting the pools when they are ecologically most active and to facilitate effective construction. A more detailed construction schedule will be provided in the pilot study SIP.

As summarized in Section 6.3, GE will submit a Vernal Pool Pilot Study Construction Completion Report to summarize and document the scope of the completed pilot study construction activities. That report will be submitted within 120 days after a post-construction pre-certification inspection with EPA.

As noted in Section 8, GE will conduct post-construction monitoring of the pilot study vernal pools for a period of three years, which is anticipated to be ongoing while remediation is occurring in other areas of Reach 5A. This three-year period will allow for equilibration of porewater PCBs in the pools where an amendment has been placed and provide sufficient time to assess restoration effectiveness and potential ecological impacts in pools where soil removal and restoration have been performed.

GE will submit a Vernal Pool Pilot Study Summary Report for EPA review and approval within 60 days after receipt and validation of the final data collected as part of the post-remediation monitoring program. As provided in Section 4.2.4 of the Final Revised SOW, that report will summarize the results of the pilot study and provide recommendations regarding the method of remediation for other vernal pools in the ROR floodplain that require remediation, including the remainder of the vernal pools in Reach 5A. Within 90 days following EPA approval of the Vernal Pool Pilot Study Summary Report, GE will submit an addendum to the Final RD/RA Work Plan for Reach 5A that provides remediation design details for the remaining vernal pools in Reach 5A.

A summary of the schedule for the pilot study is presented in Table 9-1. The timeframes are presented in general terms and have been estimated based upon anticipated level of effort at the time of preparation of this Final Pilot Work Plan. Because there is uncertainty associated with the schedule for several tasks that are out of GE's control, such as seasonal constraints and EPA review periods, the schedule for key remaining deliverables and pilot study activities is presented relative to key prior milestones and other conditions.

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Tables

Table 1-2
Summary of Chemistry, Physical, and Biological Conditions in Reach 5A Vernal Pools

Vernal Pool ID	Area (acres)	Chemistry Conditions			Physical Conditions			Ecological Conditions		Pool Type in the Pilot Study
		Number of Samples	PCB SWAC (0–1 foot; mg/kg)	Average Total Organic Carbon (mg/kg)	Permanent Flowing Outlet?	Established Fish Population?	Hydrology[1]	Known Species	Vegetative Cover	
5A-VP-1	0.82	27	6.4	199959	No	NA	Intermittently exposed	13 SpS, 1 WF, FS few	SS/SEM	
5A-VP-1A	0.15	8	0.6	--	No	NA	Seasonally flooded	1 WF, FS, 1 SpS	SS/SEM	
5A-VP-1B	0.13	8	2.9	--	No	No	Seasonally flooded	4 SpS, 3 WF	SS/SEM	
5A-VP-2	0.23	10	3.5	--	No	NA	Continuously saturated	25 SpS, 13 WF	SEM/SS/WS	
5A-VP-3	0.39	14	18	49248	No	No	Seasonally flooded	WF, few larvae	WS	Field control
5A-VP-4	0.23	12	14	54450	No	NA	Seasonally flooded	10 WF, FS	WS/SS	Excavation/restoration
5A-VP-5	0.33	13	2.6	31625	No	NA	Seasonally flooded	SpS, 300 WF, FS	WS/SS	Field control
5A-VP-6	0.05	6	4.6	--	No	NA	Seasonally flooded	6 WF, FS few	WS	
5A-VP-7	0.41	15	33	61460	No	NA	Seasonally flooded	50 WF, 2 SpS, FS	WS/SS	Excavation/restoration
5A-VP-8	0.07	6	12	--	No	NA	Seasonally flooded	15 WF, FS few	WS/SS	
5A-VP-9	0.6	25	44	53620	No	NA	Seasonally flooded	30 WF, FS	SS/SEM/WS	Amendment
5A-VP-10	0.17	10	6.2	40300	No	NA	Seasonally flooded	100 WF, FS	SS/WS	Field control
5A-VP-12	0.27	11	25	44011	No	NA	Seasonally flooded	23 WF, 1 SpS	WS	Amendment
5A-VP-13	0.4	14	24	45227	No	NA	Semipermanently flooded	9 WF	DEM/WS	
5A-VP-14	0.03	6	8.6	--	No	NA	Seasonally flooded	WF larvae	SS/WS	
5A-VP-15	0.37	16	28	--	No	NA	Seasonally flooded	25 WF, FS	DEM/SEM/WS	Amendment
5A-VP-15A	0.04	6	20	--	No	NA	Seasonally flooded	FS, 3 WF	WS	
5A-VP-16	0.04	6	7.1	--	No	NA	Seasonally flooded	FS, 25 WF	WS	Excavation/restoration
5A-VP-18	0.15	10	0.5	--	No	NA	Seasonally flooded	9 WF	WS/SS/SEM	
5A-VP-18A	0.04	6	29	--	No	No	Seasonally flooded	WF larvae	SEM/WS	
5A-VP-19	0.14	6	5.3	--	No	NA	Seasonally flooded	5 WF	SEM	
5A-VP-20	0.33	16	4.5	--	No	NA	Seasonally flooded	7 WF, FS	SEM/SS/WS	
5A-VP-21	1.65	64	3.1	129541	No	NA	Seasonally flooded-saturated	300 WF, SpS, FS	SEM/SS/WS	Field control
5A-VP-22	0.82	26	6.1	51260	No	NA	Seasonally flooded-saturated	170 WF, FS	SEM/SS/WS	Amendment
5A-VP-24	0.1	6	0.13	--	No	NA	Seasonally flooded	10 WF, 14 SpS	WS	
5A-VP-24B	0.76	22	0.08	--	No	No	Seasonally flooded-saturated	5 SpS, WF (larvae)[2]	SS/WS	
5A-VP-26	0.08	6	3.4	--	No	NA	Seasonally flooded	FS	SS/WS	Field control
5A-VP-27	0.08	6	7.6	--	No	No	Seasonally flooded	FS	WS	Amendment
5A-VP-28A	0.03	6	31	--	No	NA	Seasonally flooded	2 WF	SS/WS	
5A-VP-32	0.08	8	34	210830	No	NA	Seasonally flooded	4 WF, FS	SS/WS	
5A-VP-33	0.53	17	45	123603	No	NA	Seasonally flooded-saturated	10 WF, FS	SEM/SS/WS	
5A-VP-35	0.3	10	67	81748	No	NA	Seasonally flooded-saturated	6 WF, few FS	SS/WS	
5A-VP-36	0.3	14	12	14560	No	NA	Seasonally flooded	6 WF	SEM/SS/WS	
5A-VP-40	0.12	10	74	52200	No	NA	Seasonally flooded	1 WF, FS	WS	
5A-VP-42	0.13	10	32	--	No	NA	Seasonally flooded	5 WF	SEM/WS	
5A-VP-49A	0.03	6	10	--	No	NA	Seasonally flooded	1 WF	WS	
5A-VP-50	0.06	6	4.9	--	No	NA	Seasonally flooded	1 WF	SEM/WS	
5A-VP-52	0.06	6	40	--	No	NA	Seasonally flooded	1 WF	SEM/WS	Excavation/restoration
5A-VP-54	0.09	13	42	--	No	NA	Seasonally flooded	1 WF	SEM/SS/WS	
5A-VP-55	0.25	15	25	99048	No	NA	Seasonally flooded	2 WF	SEM/WS	Field control
5A-VP-57	0.49	6	30	96765	No	NA	Seasonally flooded	20 WF	WS	Excavation/restoration
5A-VP-59A	0.06	6	13	--	No	NA	Seasonally flooded	3 WF	WS	

Table 1-2
Summary of Chemistry, Physical, and Biological Conditions in Reach 5A Vernal Pools

Vernal Pool ID	Area (acres)	Chemistry Conditions			Physical Conditions			Ecological Conditions		Pool Type in the Pilot Study
		Number of Samples	PCB SWAC (0–1 foot; mg/kg)	Average Total Organic Carbon (mg/kg)	Permanent Flowing Outlet?	Established Fish Population?	Hydrology[1]	Known Species	Vegetative Cover	
5A-VP-60	0.08	8	4.6	108947	No	NA	Seasonally flooded	9 WF, FS	WS	
5A-VP-61	0.26	12	2.2	96015	No	NA	Seasonally flooded	70 WF, FS	WS	Field control
5A-VP-62	0.22	10	1.3	--	No	NA	Seasonally flooded	7 WF, FS	WS	
5A-VP-63	0.09	6	2.6	127078	No	NA	Seasonally flooded	1 WF, FS	WS	
5A-VP-64	1	34	28	--	No	No	Seasonally flooded	4WF/FAC only	SEM/SS	
5A-VP-65	0.11	8	27	--	No	NA	Seasonally flooded	6 WF	SEM	
5A-VP-69	0.34	16	0.11	6752	No	NA	Seasonally flooded	6 WF	SEM/SS	
5A-VP-70	0.78	18	0.12	4220	No	NA	Seasonally flooded	65 WF, FS	SEM/SS	
5A-VP-71	0.47	13	6.6	144845	No	NA	Intermittently exposed/semipermanently flooded	8 WF, 2 SpS	SEM/SS	
5A-VP-72	1.26	36	5.9	200210	No	NA	Intermittently exposed/semipermanently flooded	6 SpS, 1 WF	DEM/SEM/SS	
5A-VP-73	0.48	16	19	129297	No	NA	Seasonally flooded	200 WF, 13 SpS	SS/WS	
5A-VP-73A	0.15	10	8.5	--	No	NA	Seasonally flooded	5 WF, FS	SS/WS	
5A-VP-74	0.26	11	10	53764	No	NA	Seasonally flooded	23 WF. FS, SpS	WS	
5A-VP-77	3.93	60	6	--	No	NA	Seasonally flooded-saturated	6 WF, 18 SpS	SEM/SS/WS	
5A-VP-79	0.08	6	5.2	100026.5	No	NA	Seasonally flooded	FS	SS/WS	
5A-VP-80	0.83	26	36	158281	No	NA	Seasonally flooded	FS	SS/WS	
5A-VP-81	0.09	6	77	--	No	No	Seasonally flooded	FS	WS	
5A-VP-83	0.05	6	24	--	No	NA	Seasonally flooded	WF larvae	SEM	

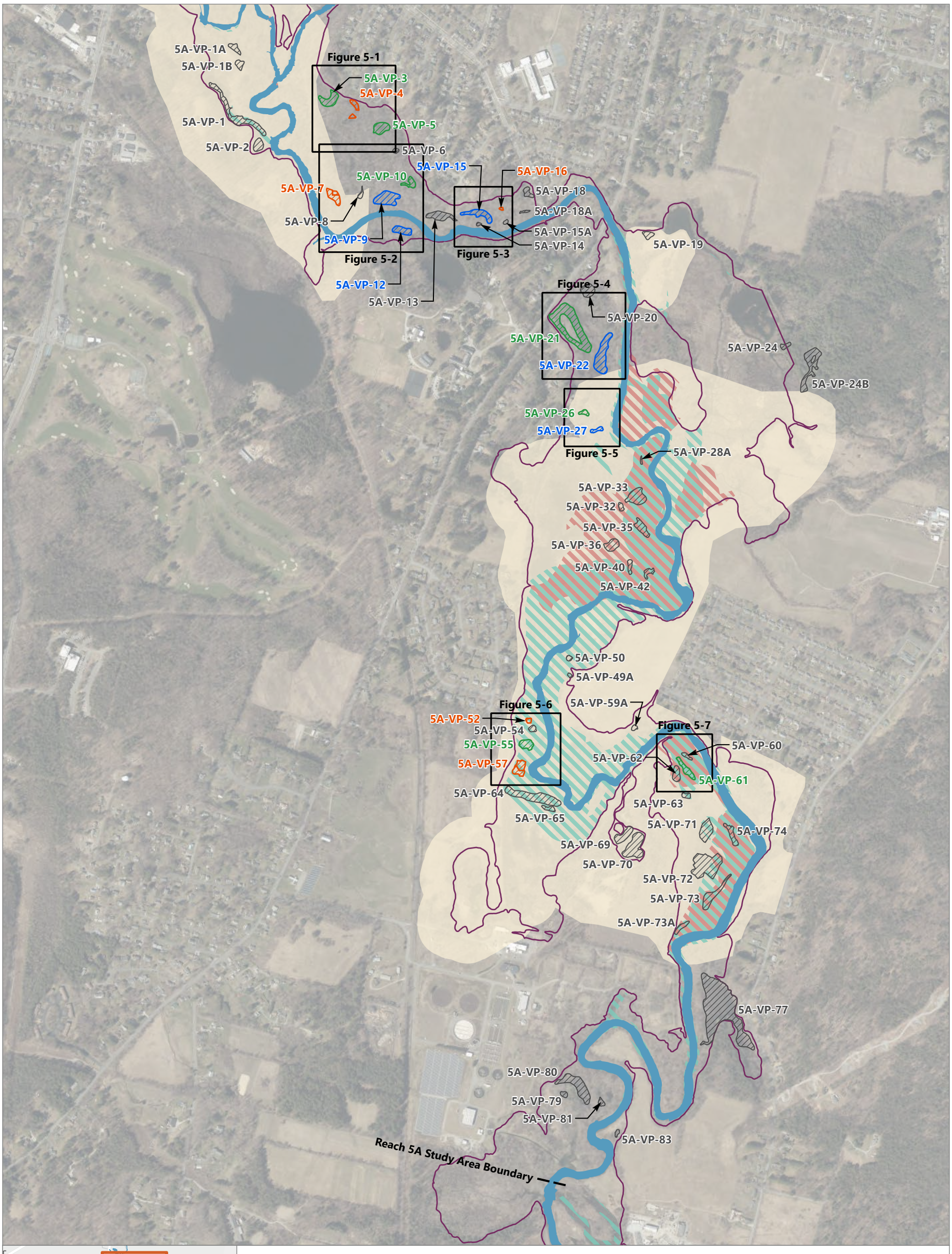
Notes:
Highlighted pools were selected for the pilot study. Inclusion of these pools is contingent on the ability to obtain access agreements from the property owners.
1. Based on Nontidal Water Regime Modifiers described in Cowardin Classification system
2. Observation performed in May 2022

DEM: deep emergent marsh
FAC: facultative
FS: fairy shrimp
kg: kilogram
mg: milligram
NA: not available. For pools being certified based on obligate species (wood frogs, spotted salamanders, fairy shrimp), the presence of reproducing fish is not relevant.
PCB: polychlorinated biphenyl
SEM: shallow emergent marsh
SpS: spotted salamander
SS: shrub swamp
SWAC: spatially weighted average concentration
WF: wood frog
WS: wooded swamp
-- TOC data not available

Table 9-1
Summary of Vernal Pool Pilot Study Schedule

Tasks		Schedule
Vernal Pool Pilot Study Work Plan		Submitted on June 8, 2023; conditionally approved by EPA on September 12, 2023
Revised Vernal Pool Pilot Study Work Plan		Submitted on November 13, 2023
Bench-Scale Testing	Soil Sample Collection	Completed as documented in Appendix B to this Work Plan
	Sample Analyses	
	Proposal for Selection of Soil for Use in Bench Testing	
	Bench-Scale Jar Testing	
	Bench-Scale Column Testing	
Baseline Monitoring and Surveys	PCB Sampling (soil and porewater sampling)	Completed as documented in Appendix C to this Work Plan
	Ecological Surveys	
Final Revised Vernal Pool Pilot Study Work Plan		This document; submitted on June 30, 2025
Pilot Study Contractor Procurement		Within 120 days from EPA approval of this Final Pilot Work Plan
Vernal Pool Pilot Study Construction	Mobilization/Site Preparation	Following EPA approval of this Final Pilot Work Plan. It is anticipated that the pilot study will be conducted in 2026. Pilot study construction activities will be conducted beginning no earlier than July or when pools become free of standing water. A detailed construction schedule will be submitted in the SIP based on input from the selected construction contractor.
	Amendment Application	
	Soil Removal, Backfilling, and Restoration	
	Demobilization	
Vernal Pool Pilot Study Construction Completion Report		Within 120 days from post-construction pre-certification inspection with EPA
Post-Remediation Monitoring – Amendment-Based Remediation Pools	PCB Porewater and AC Sampling	Three months, six months, one year, two years, and three years after amendment application
	Ecological Monitoring	Vernal pool breeding season into summer in the first, second, and third years after amendment application; different surveys will be performed at different times of the year as outlined in Appendix I (Pilot Test Monitoring Work Plan)
	Hydrological Monitoring	Between March 1 and July 1 in the first, second, and third years after amendment application
	Surface Water Monitoring	During spring flooding in each pool in the first, second, and third years after amendment application
Post-Remediation Monitoring – Removal-Based Remediation Pools and Control Pools	Ecological Monitoring (incl. soil profile in removal pools)	Vernal pool breeding season into summer in the first, second, and third years after post-removal backfilling is complete; different surveys will be performed at different times of the year as outlined in Appendix I (Pilot Test Monitoring Work Plan)
	Hydrological Monitoring	Between March 1 and July 1 in the first, second, and third years after remediation
	Surface Water Monitoring	During spring flooding in each pool in the first, second, and third years after remediation
Post-Construction Annual Monitoring Reports		Following the first and second years of monitoring
Vernal Pool Pilot Study Summary Report		60 days after receipt and validation of the final data collected as part of the post-remediation monitoring program
Vernal Pool Addendum to Final RD/RA Work Plan for Reach 5A		90 days after EPA approval of the Vernal Pool Pilot Study Summary Report

Figures



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Filepath: \\gstfile01\GIS\Jobs\GE_0469\HousatonicRiver\Maps\Reports\VernalPools\PilotStudy\WorkPlan\R5APilotStudyWorkPlan.aprx\Figure 1-1 Summary of Vernal Pools

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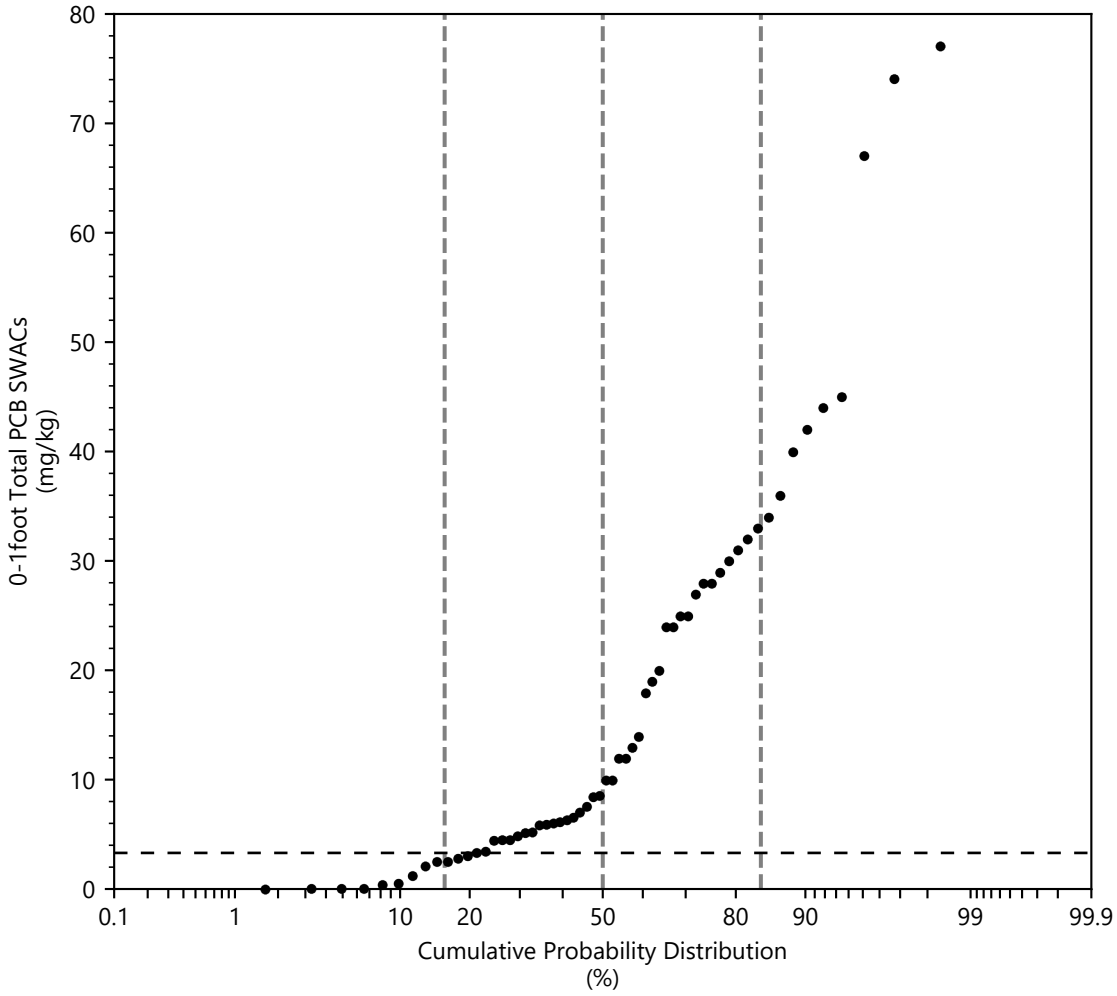
Figure 1-1
Summary of Vernal Pools Selected for Pilot Study
Final Revised Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Horizontal black line at 3.3 mg/kg represents the performance standard.

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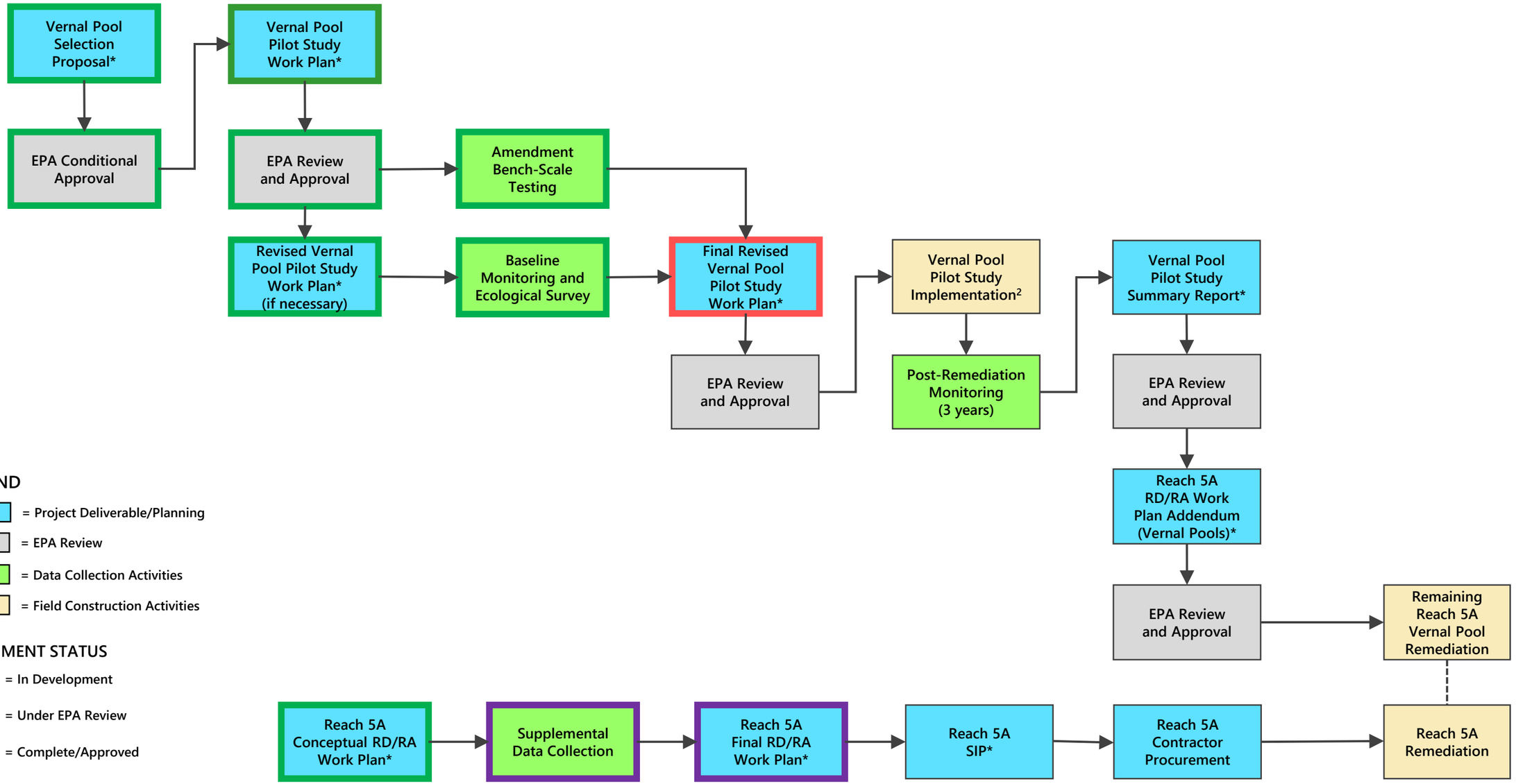
Figure 1-2
Cumulative Probability Distribution of 0- to 1-foot PCB SWACs in Vernal Pools



Last updated: January 23, 2025

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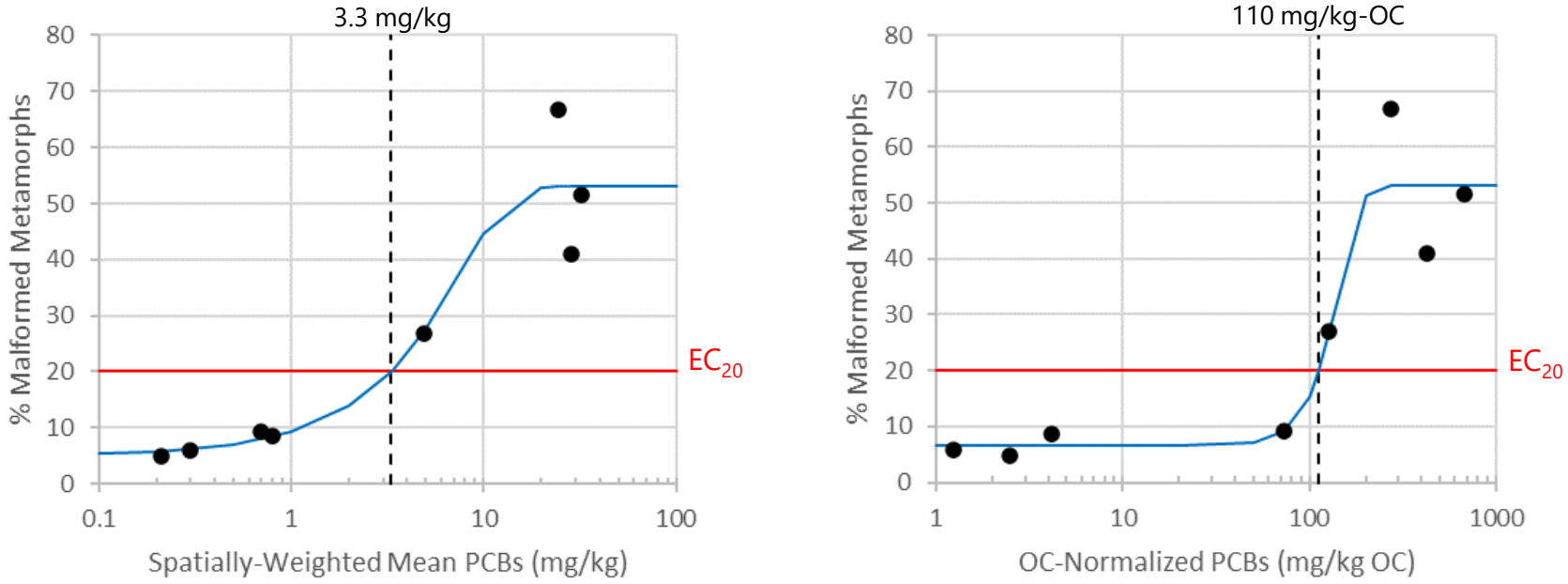
Figure 1-3
Vernal Pool Pilot Study Flowchart
Final Revised Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Notes:

1. Malformation data collected from 8 vernal pools during the Phase III wood frog metamorph study conducted by EPA in 2000.
2. Spatially-weighted mean soil PCB concentrations (SWACs) were calculated using interpolated concentration using the inverse distance weighting method.
3. Soil PCB concentrations were measured in 0- to 6-inch interval.
4. The blue line represents the probit analysis results using the transformed percent malformation by the probit transformation and non-transformed soil concentration values. The calculation was performed using the JMP statistical software.
5. The vertical dashed line represents the PCB soil concentration associated with EC_{20}.

EC = effects concentration

Filepath: \\wcl-fs1\Syracuse\Projects\GE\Housatonic_Rest-of-River\Remedial_Design\Documents\Vernal_Pool_Pilot_Study_Work_Plan\Figures\Figure 2-1 vp perf stf pcboc.xlsx

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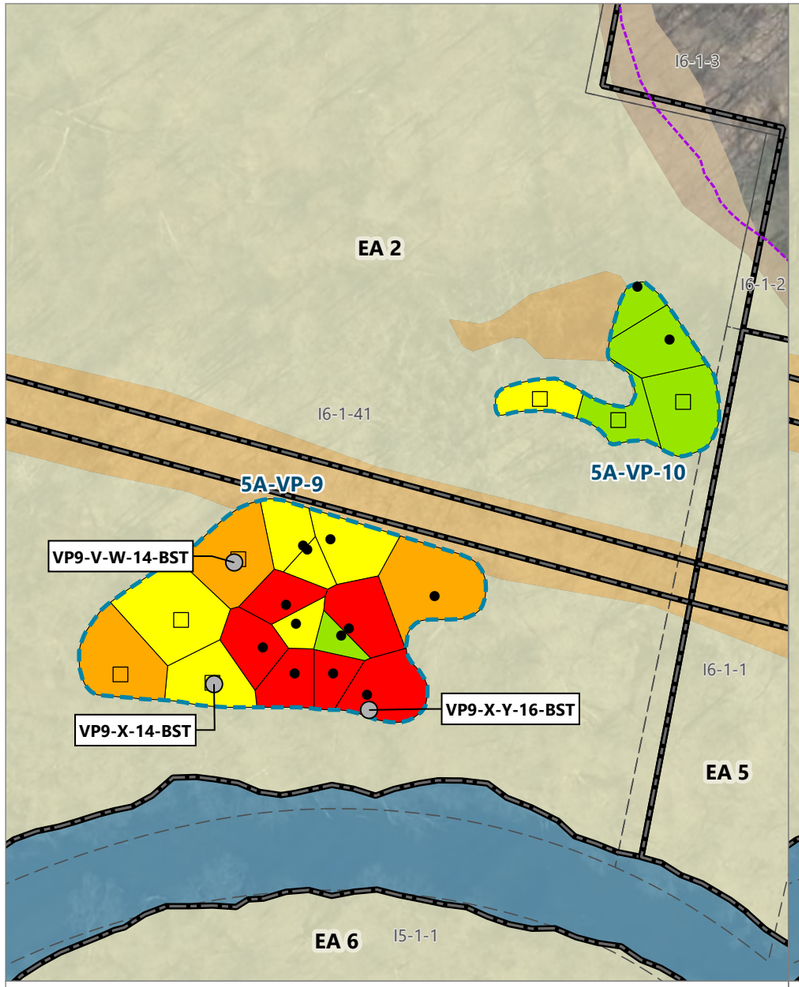
Figure 2-1

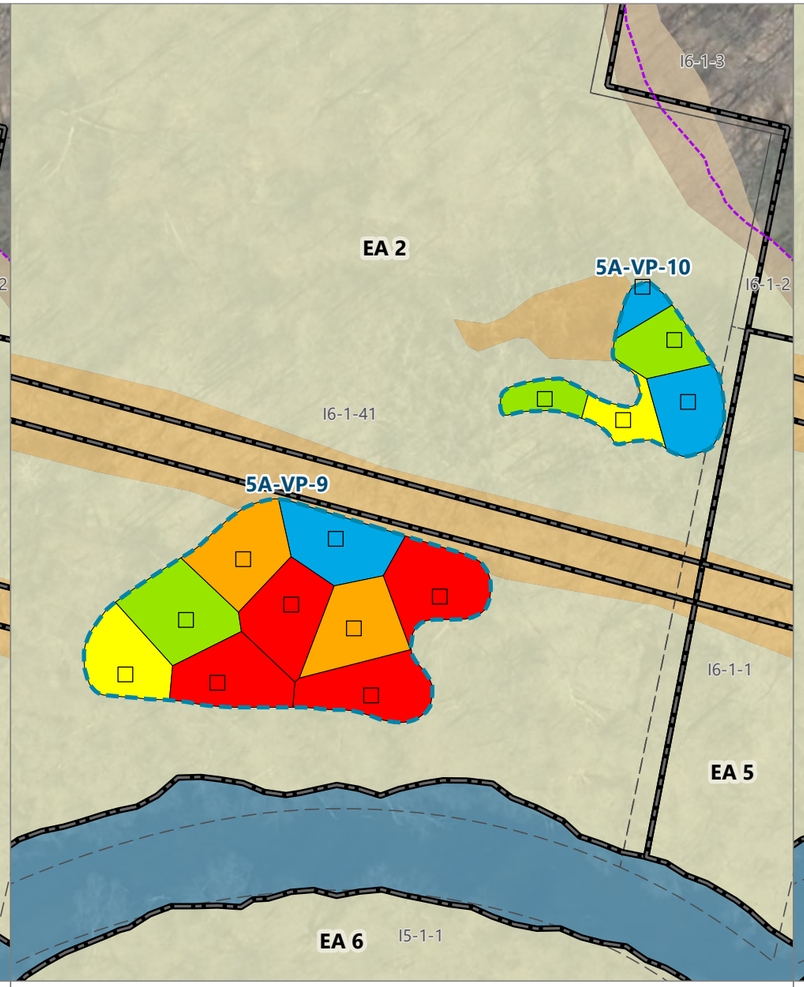
Correlation of Percent Malformations in Phase III Wood Frog Metamorphs and Soil PCB Concentrations in Vernal Pools

Final Revised Vernal Pool Pilot Study Work Plan

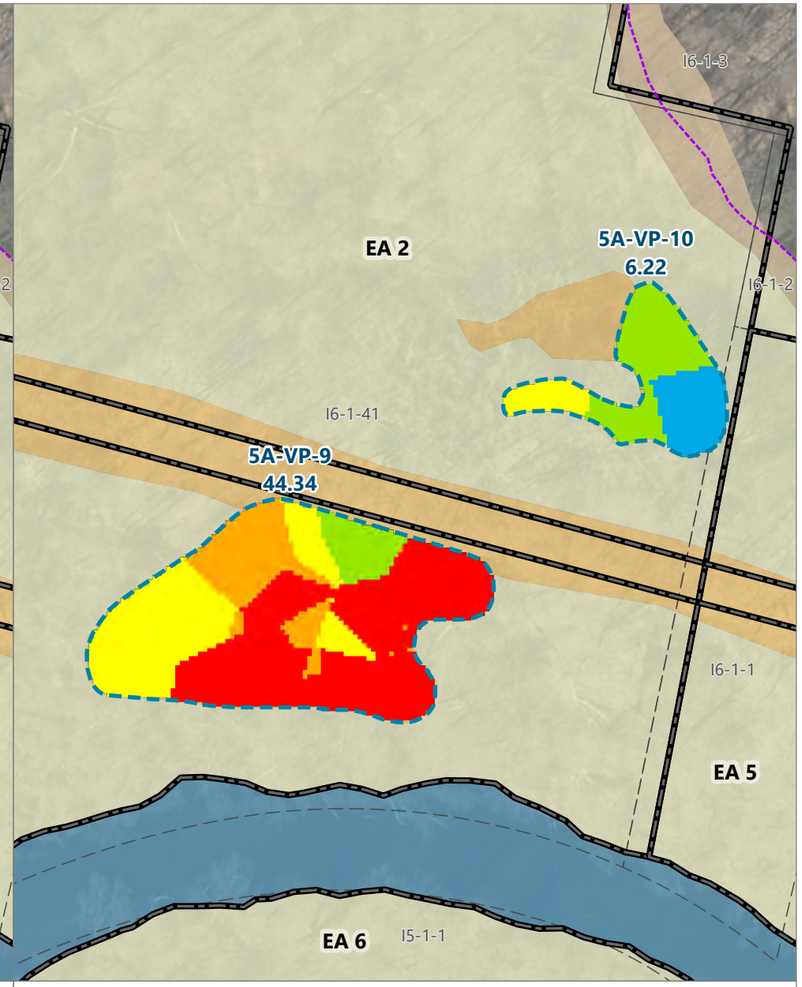
Housatonic River – Rest of River



Total PCB (0 to 6 inches)



Total PCB (6 to 12 inches)



Total PCB (Interpolated 0 to 12 inches)[1]

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations
- Vernal Pool Bench-Scale Testing Sampling Location

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCB concentration color coding excludes results from 2024 baseline monitoring.
3. Aerial imagery from MassGIS 2023.

0 100
Feet

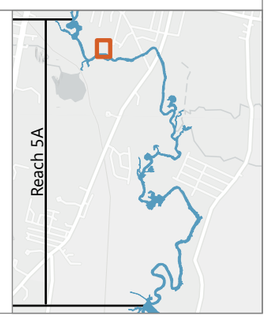


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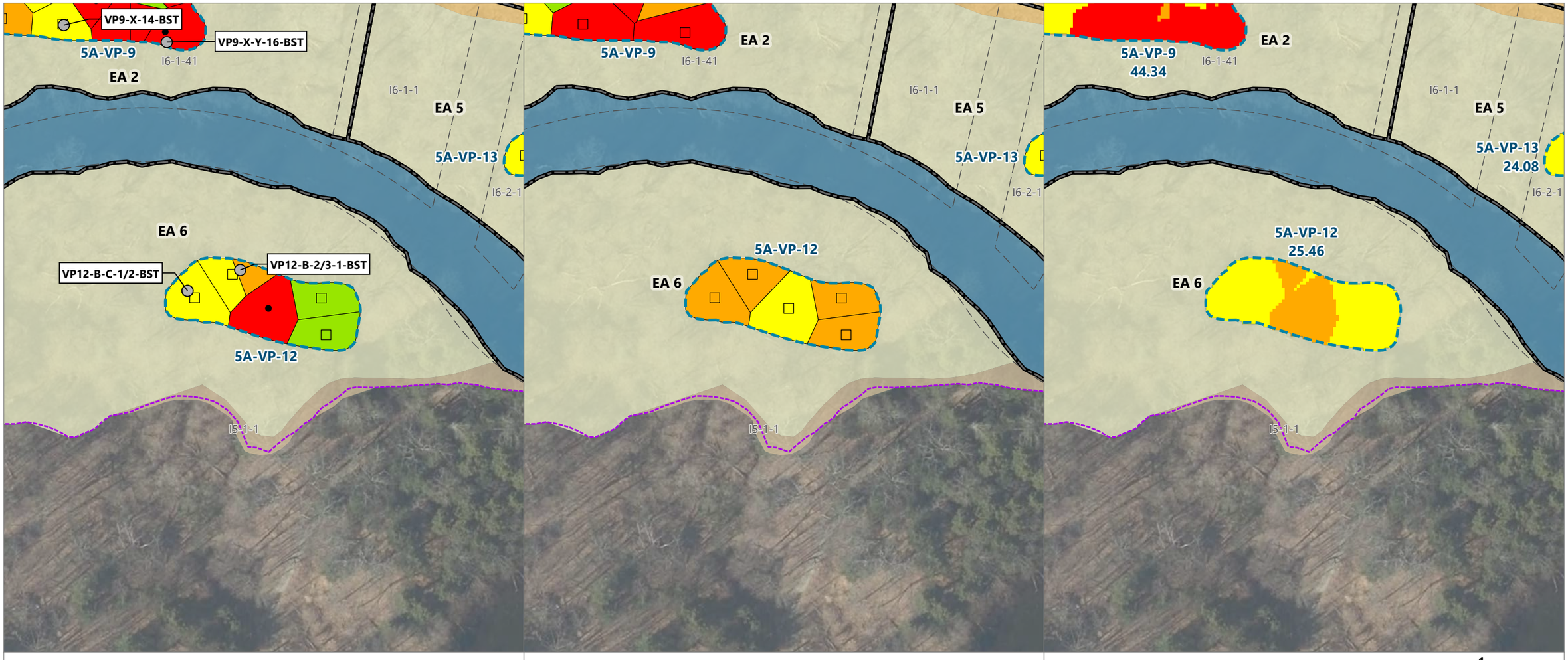
Figure 3-1
Bench-Scale Sampling Locations in 5A-VP-9 (October 2023 Mobilization)
Final Revised Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations
- Vernal Pool Bench-Scale Testing Sampling Location

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCB concentration color coding excludes results from 2024 baseline monitoring.
3. Aerial imagery from MassGIS 2023.

0 100
Feet

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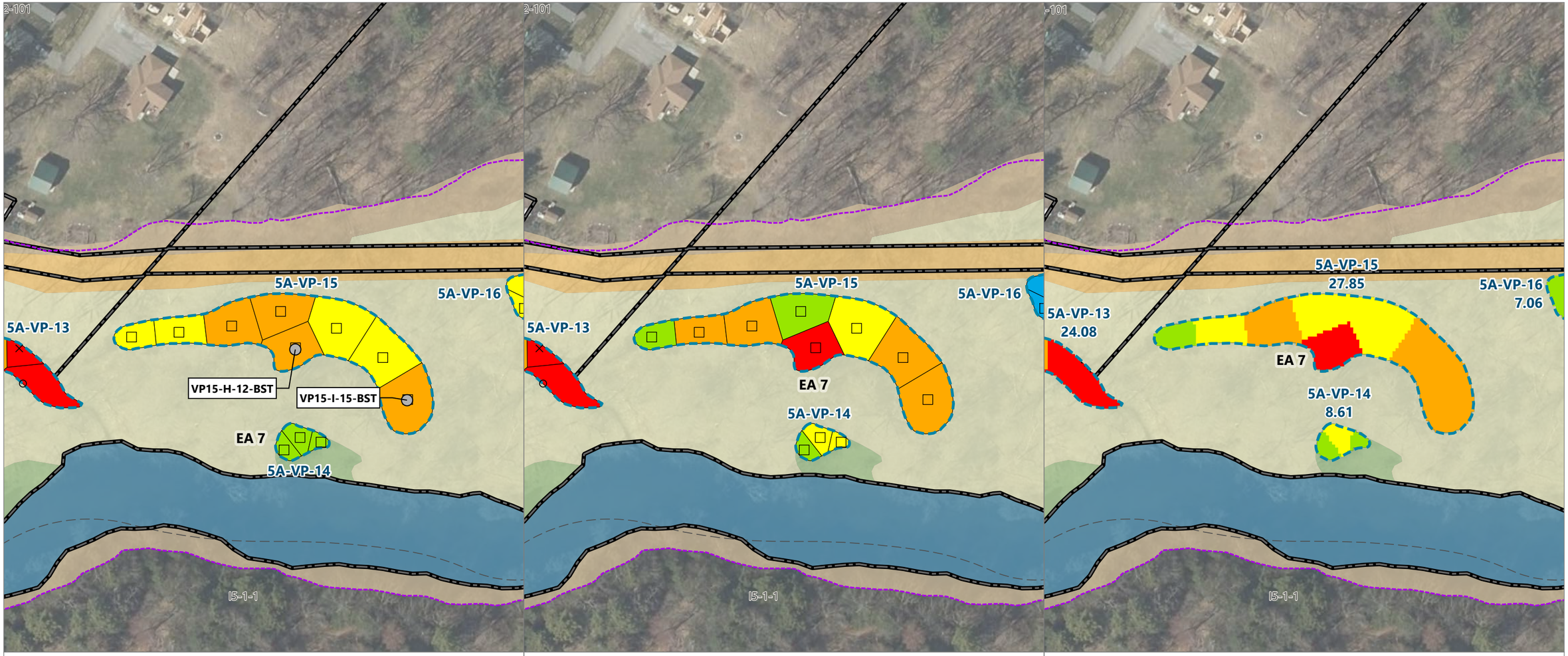
Figure 3-2
Bench-Scale Sampling Locations in 5A-VP-12 (October 2023 Mobilization)
Final Revised Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

- Non-Residential PDI Sampling Locations (2022)
- Residential PDI Sampling Locations (2020-2021)
- Actual/Potential Lawn Sampling Locations
- Vernal Pool Bench-Scale Testing Sampling Location

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCB concentration color coding excludes results from 2024 baseline monitoring.
3. Aerial imagery from MassGIS 2023.

0 100
Feet

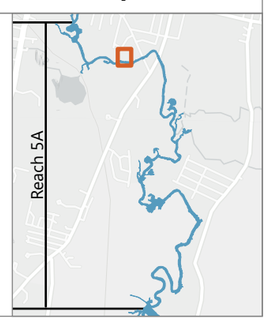


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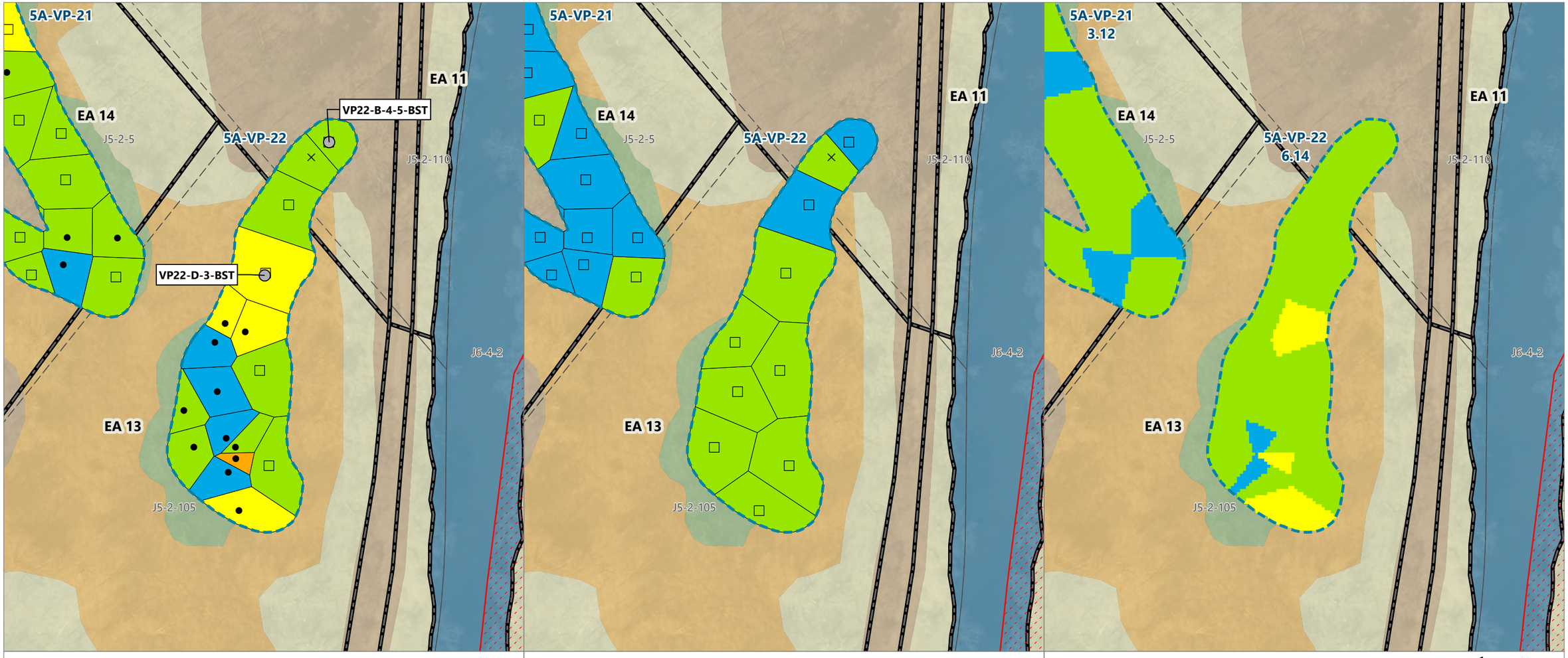
Figure 3-3
Bench-Scale Sampling Locations in 5A-VP-15 (October 2023 Mobilization)
Final Revised Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)
- Core Area 1 Habitat

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

- Non-Residential PDI Sampling Locations (2022)
- Actual/Potential Lawn Sampling Locations
- Historical Sampling Locations
- Vernal Pool Bench-Scale Testing Sampling Location

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCB concentration color coding excludes results from 2024 baseline monitoring.
3. Aerial imagery from MassGIS 2023.

0 100
Feet

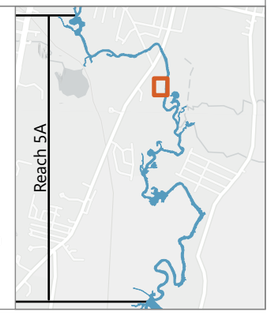


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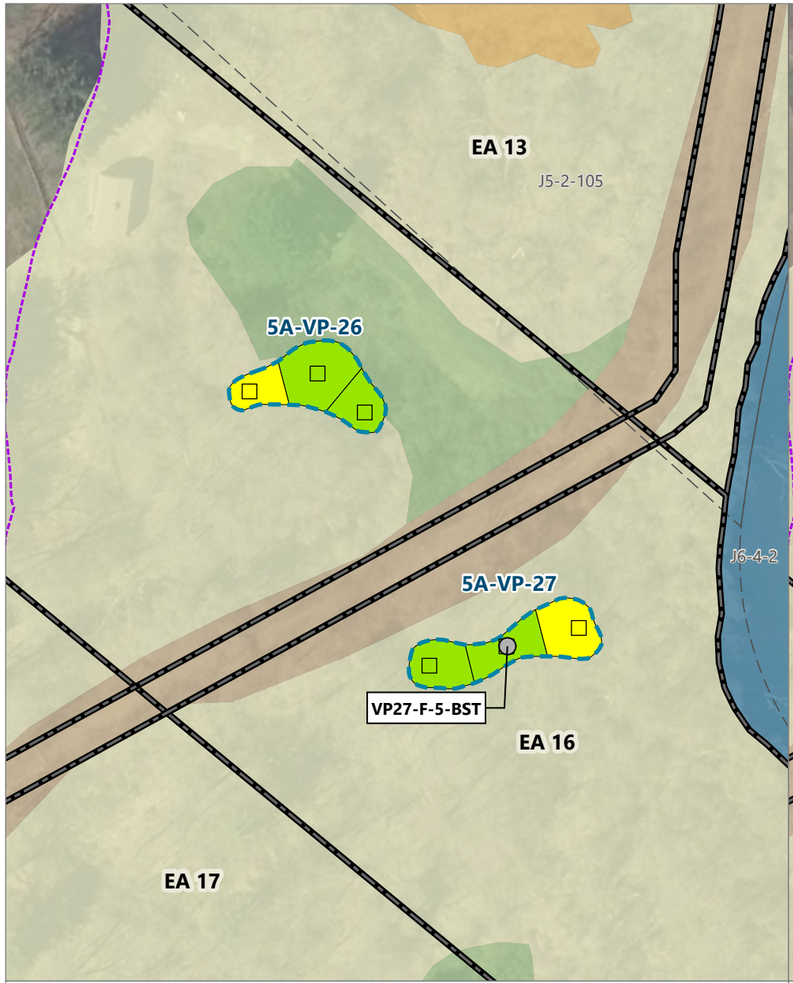
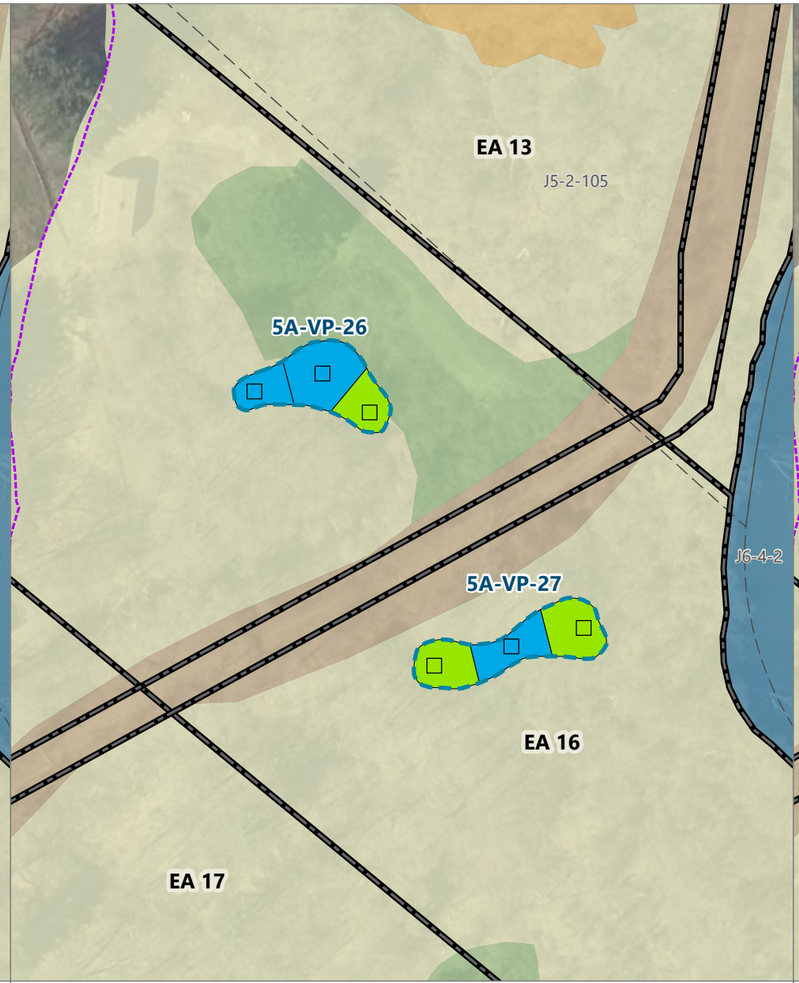
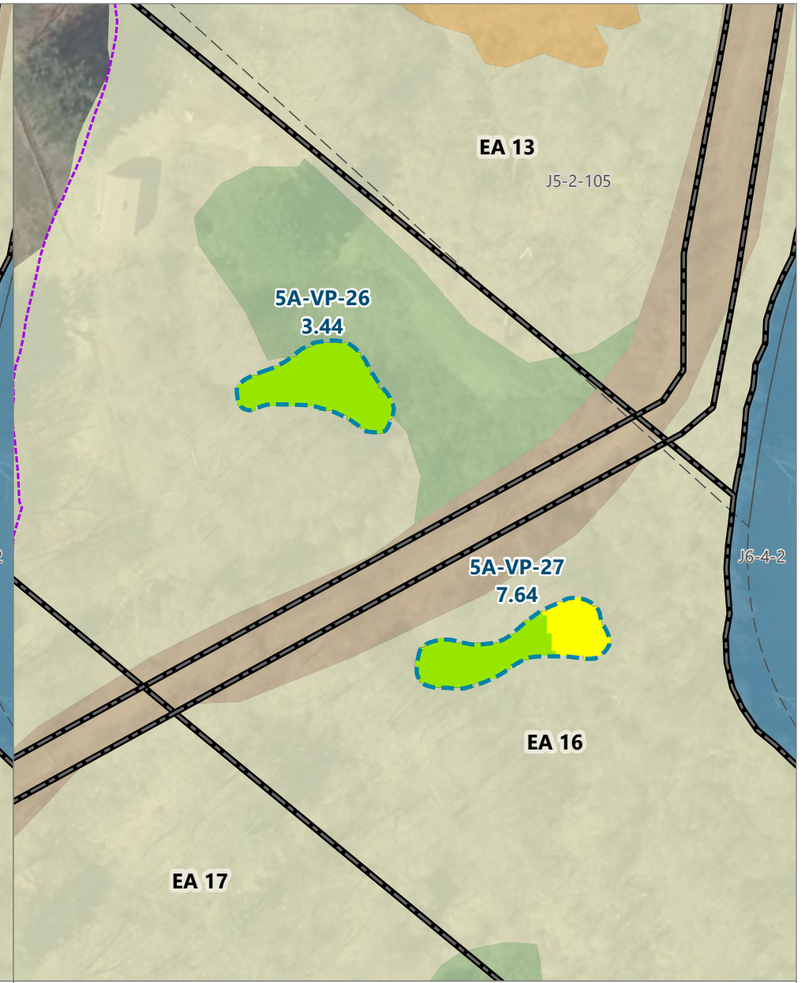
Figure 3-4
Bench-Scale Sampling Locations in 5A-VP-22 (October 2023 Mobilization)
Final Revised Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches)



Total PCB (6 to 12 inches)



Total PCB (Interpolated 0 to 12 inches)[1]

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

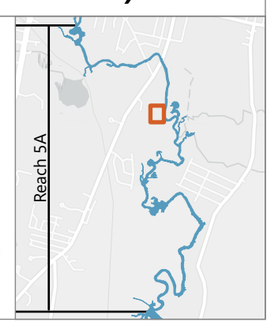
- Non-Residential PDI Sampling Locations (2022)
- Vernal Pool Bench-Scale Testing Sampling Location

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCB concentration color coding excludes results from 2024 baseline monitoring.
3. Aerial imagery from MassGIS 2023.

0 100
Feet



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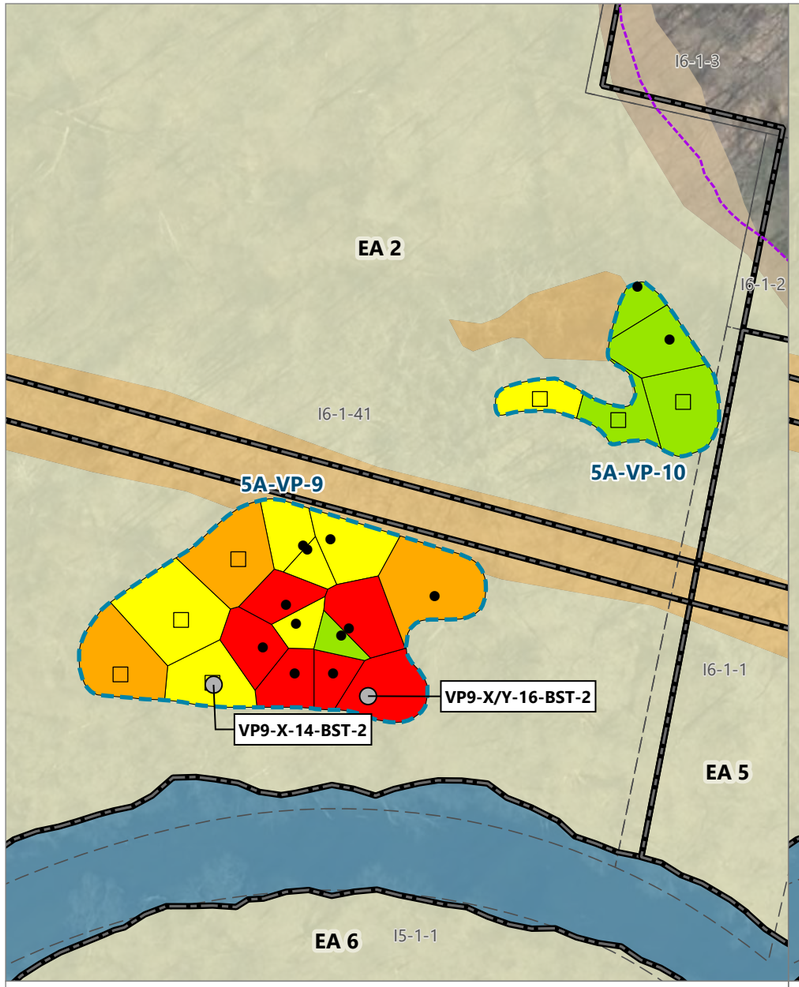
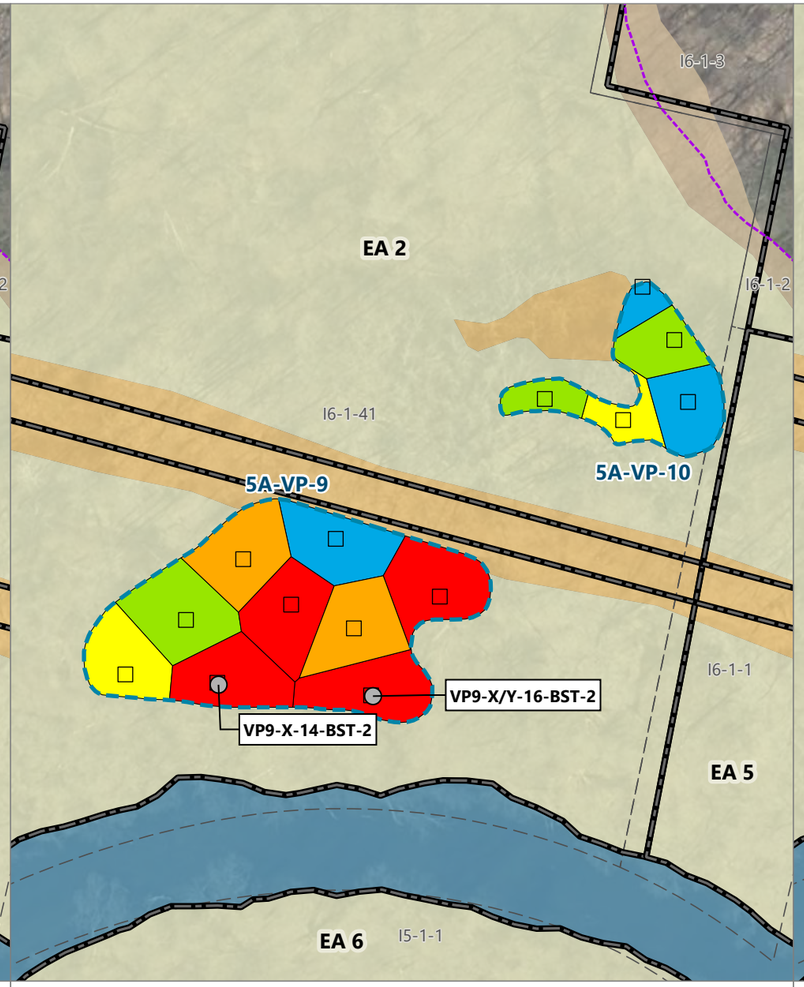
ANCHOR QEA

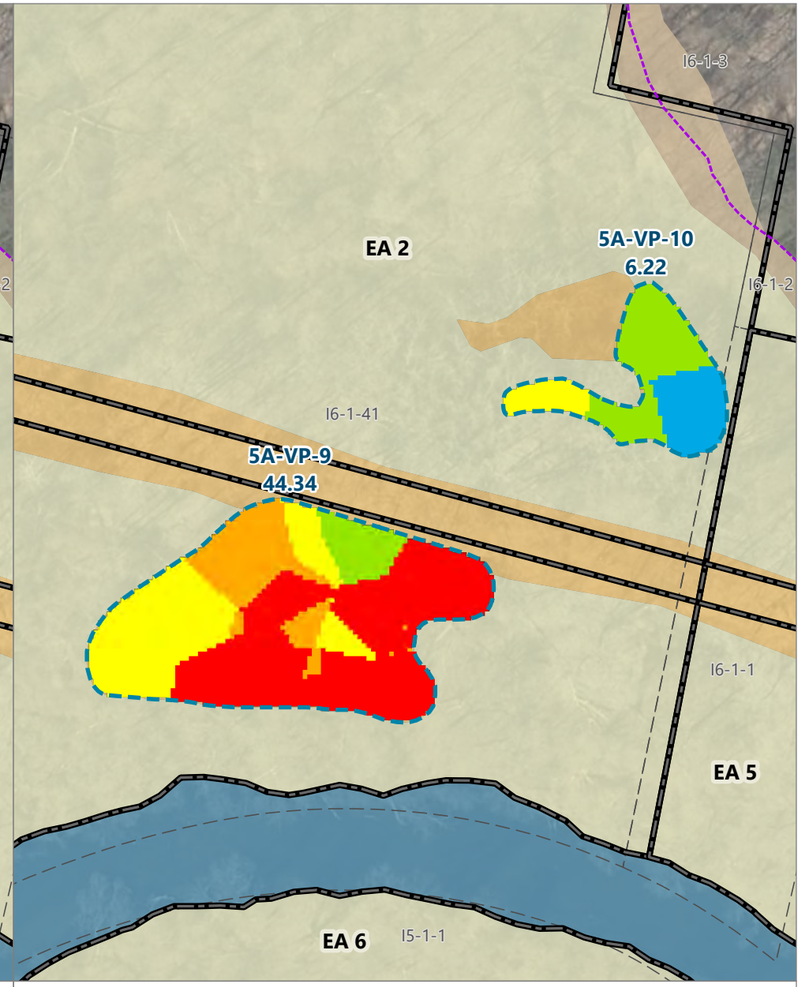
Figure 3-5
Bench-Scale Sampling Locations in 5A-VP-27 (October 2023 Mobilization)
Final Revised Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches)



Total PCB (6 to 12 inches)



Total PCB (Interpolated 0 to 12 inches)[1]

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

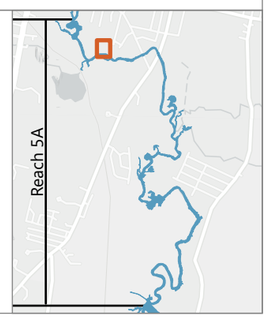
- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations
- Vernal Pool Bench-Scale Testing Sampling Location

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCB concentration color coding excludes results from 2024 baseline monitoring.
3. Aerial imagery from MassGIS 2023.

0 100
Feet



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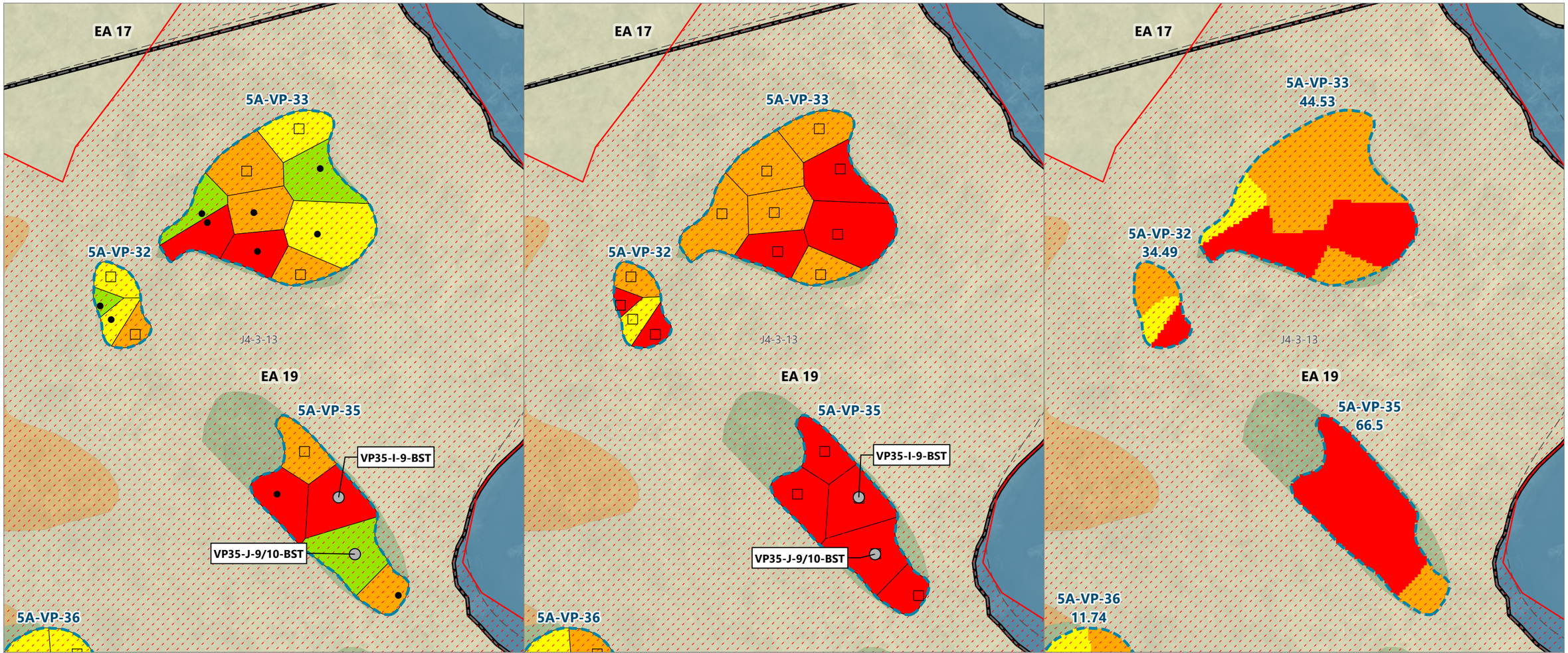
Filepath: \\gstfile01\gis\Jobs\GE_0469\HousatonicRiver\Maps\Reports\VernalPools\PilotStudy\WorkPlan\R5APilotStudyWorkPlan.aprx\VPPSWP Figure 3-6to9 Bench Scale Testing

ANCHOR QEA

Figure 3-6
Bench-Scale Sampling Location 5A-VP-9 (December 2023 Mobilization)
Final Revised Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)
- Core Area 1 Habitat

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

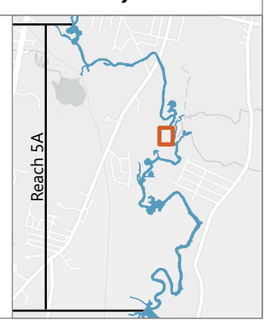
- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations
- Vernal Pool Bench-Scale Testing Sampling Location

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCB concentration color coding excludes results from 2024 baseline monitoring.
3. Aerial imagery from MassGIS 2023.

0 100
Feet



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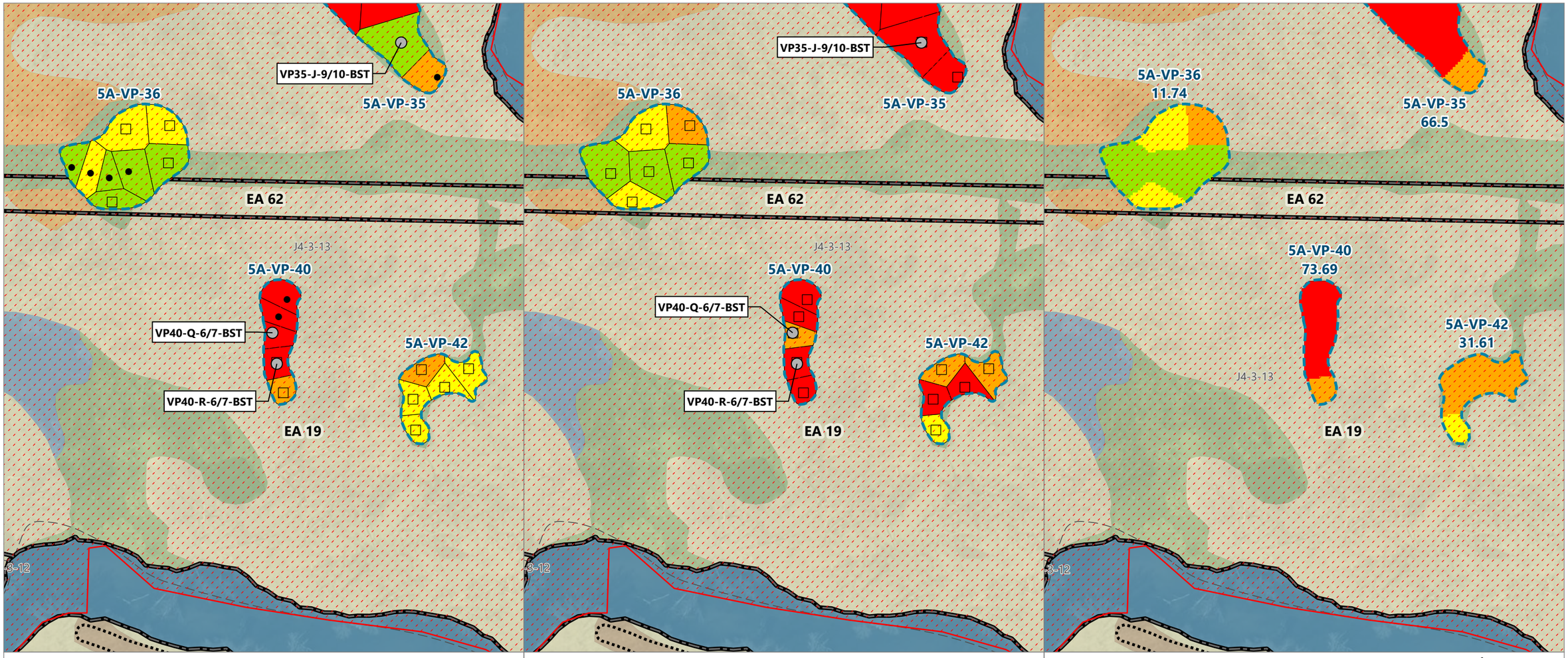
Filepath: \\gstfile01\gis\Jobs\GE_0469\HousatonicRiver\Maps\Reports\VernalPools\PilotStudy\WorkPlan\R5APilotStudyWorkPlan.aprx\VPPSWP Figure 3-6to9 Bench Scale Testing

ANCHOR QEA

Figure 3-7
Bench-Scale Sampling Location 5A-VP-35 (December 2023 Mobilization)
Final Revised Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)
- Core Area 1 Habitat

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations
- Vernal Pool Bench-Scale Testing Sampling Location

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCB concentration color coding excludes results from 2024 baseline monitoring.
3. Aerial imagery from MassGIS 2023.

0 120
Feet

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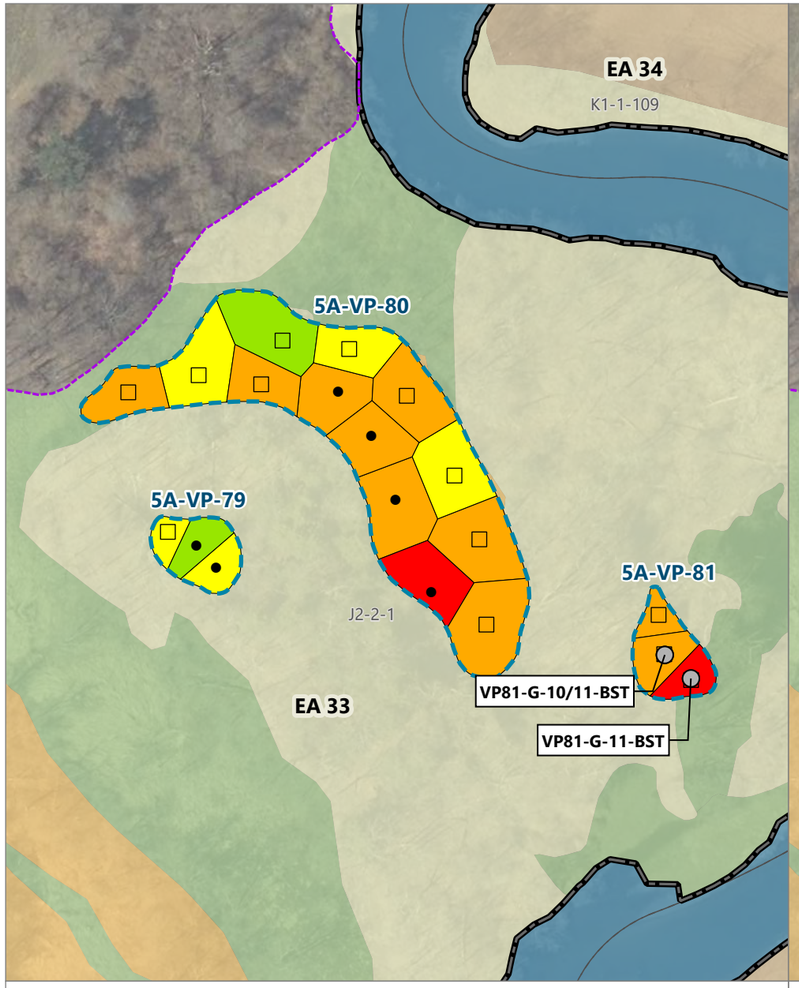
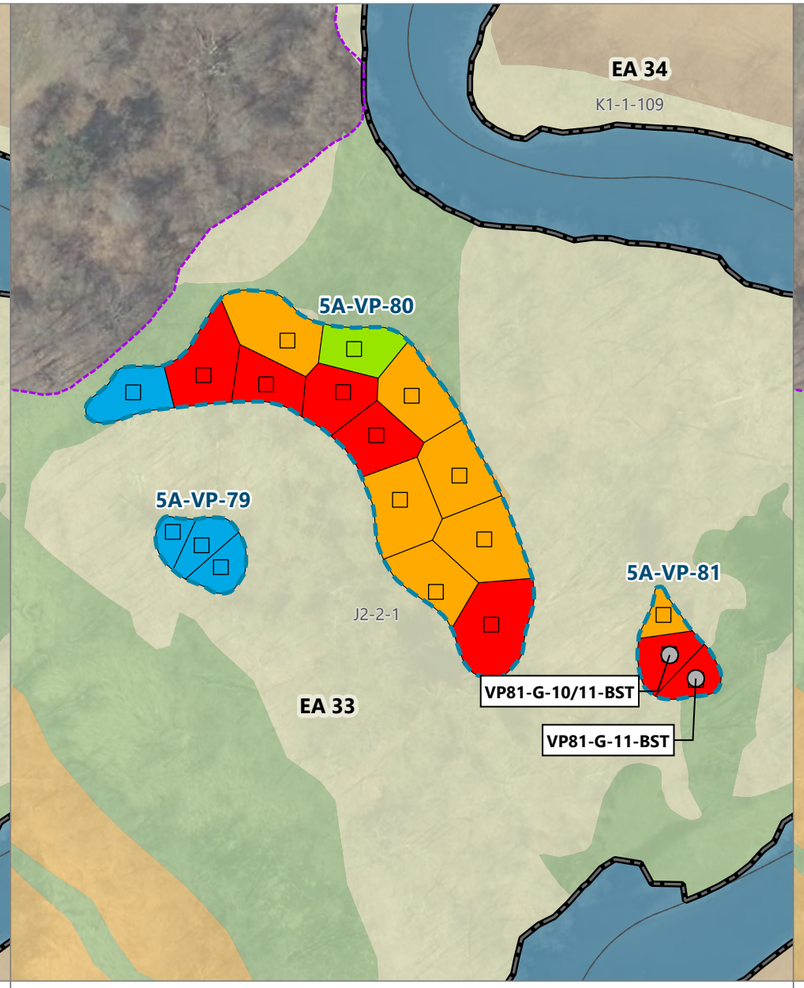
Filepath: \\gstfile01\gis\Jobs\GE_0469\HousatonicRiver\Maps\Reports\VernalPools\PilotStudy\WorkPlan\R5APilotStudyWorkPlan.aprx\VPPSWP Figure 3-6to9 Bench Scale Testing

ANCHOR QEA

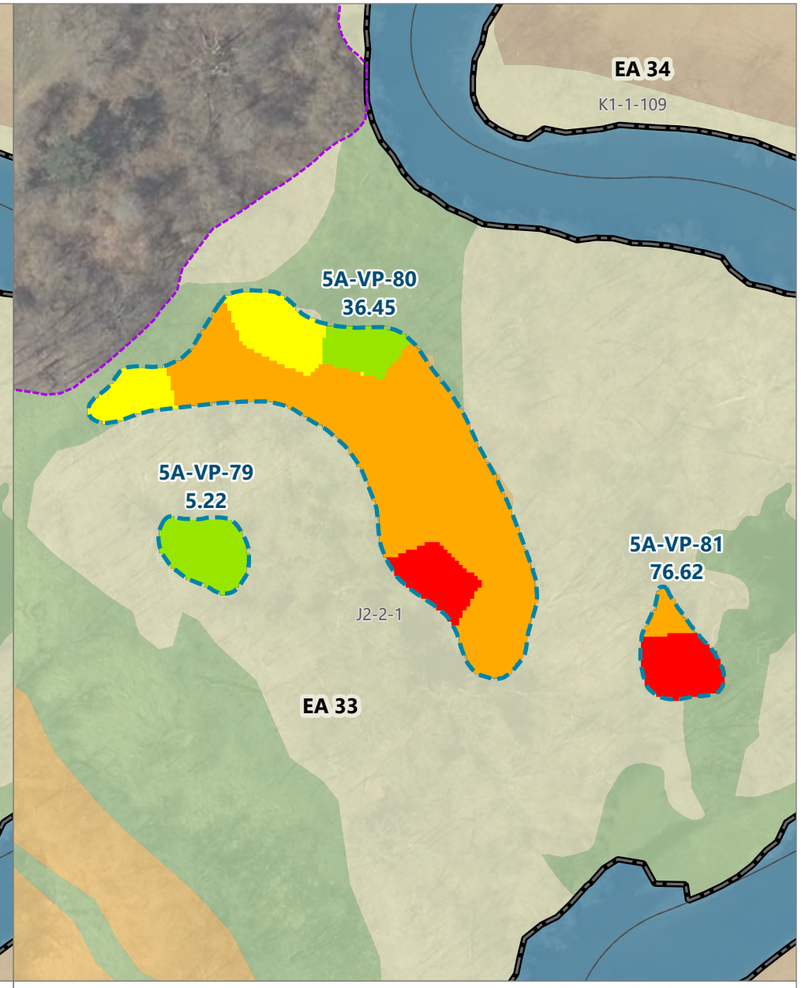
Figure 3-8
Bench-Scale Sampling Location 5A-VP-40 (December 2023 Mobilization)
Final Revised Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches)



Total PCB (6 to 12 inches)



Total PCB (Interpolated 0 to 12 inches)[1]

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations
- Vernal Pool Bench-Scale Testing Sampling Location

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCB concentration color coding excludes results from 2024 baseline monitoring.
3. Aerial imagery from MassGIS 2023.

0 120
Feet

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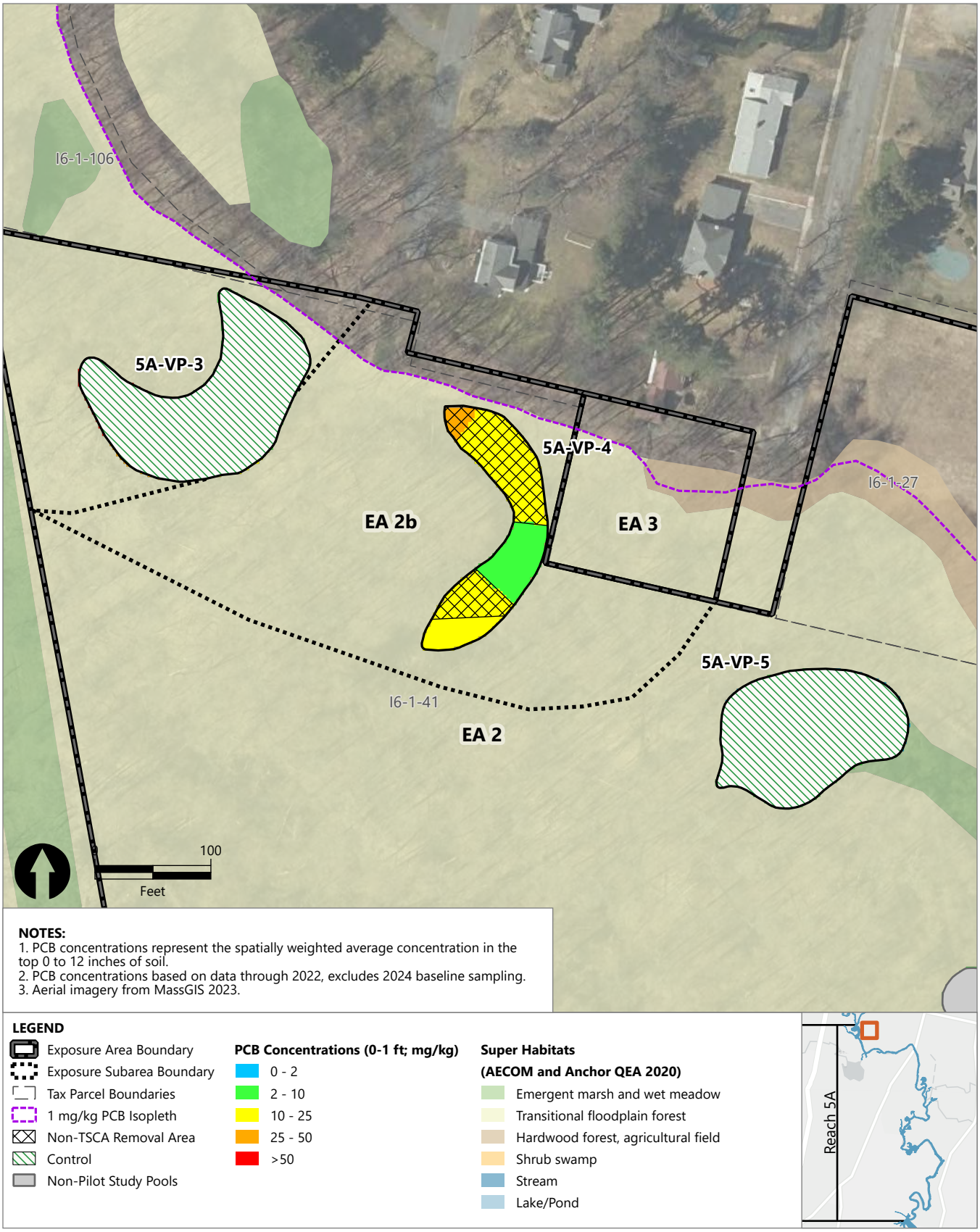
Filepath: \\gstfile01\gis\Jobs\GE_0469\HousatonicRiver\Maps\Reports\VernalPools\PilotStudy\WorkPlan\R5APilotStudyWorkPlan.aprx\VPPSWP Figure 3-6to9 Bench Scale Testing

ANCHOR QEA

Figure 3-9
Bench-Scale Sampling Location 5A-VP-81 (December 2023 Mobilization)
Final Revised Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



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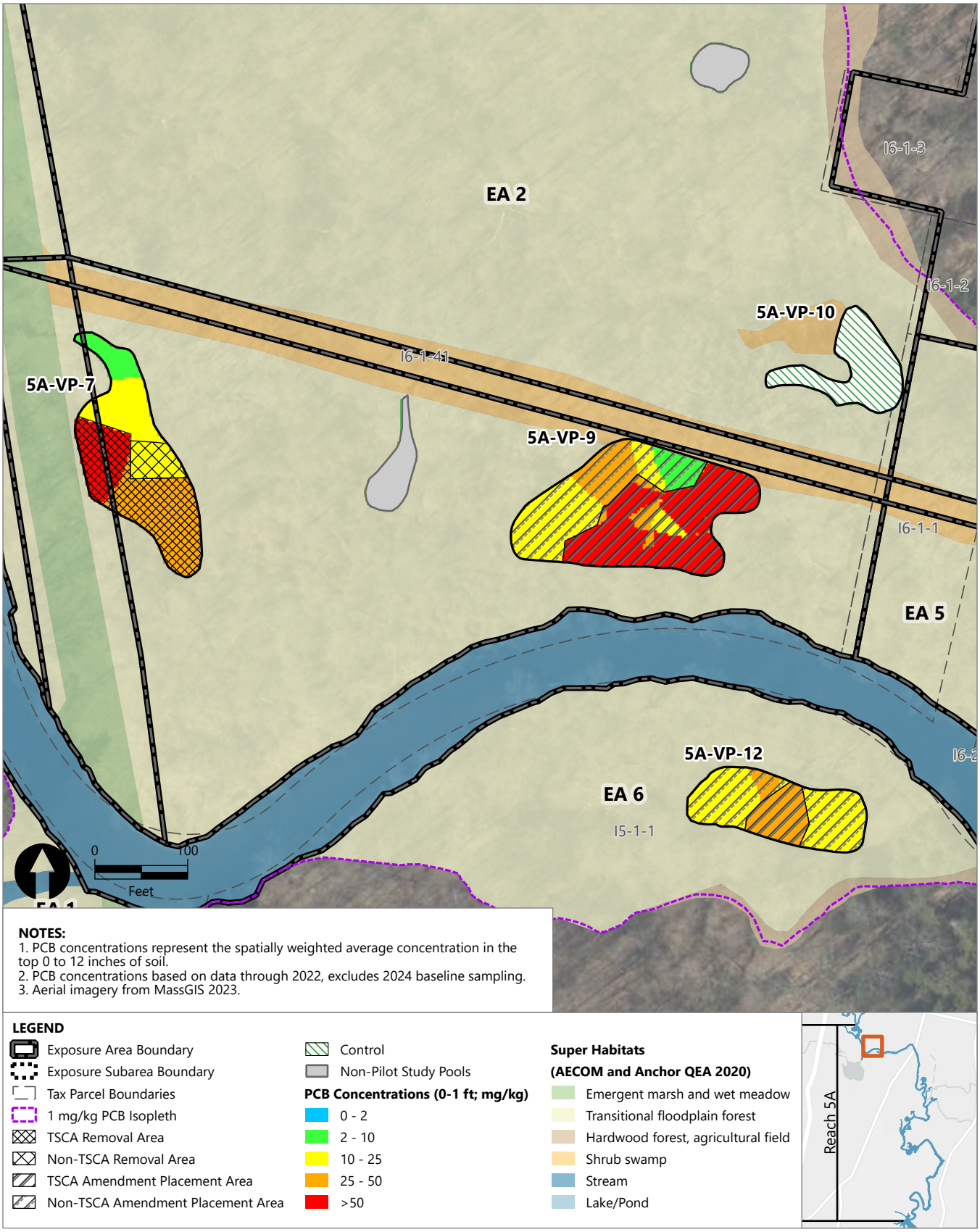
Filepath: \\gstfile01\GIS\Jobs\GE_0469\HousatonicRiver\Maps\Reports\VernalPools\PilotStudy\WorkPlan\R5APilotStudyWorkPlan.aprx | Figure 5-1to7 Pilot Study Vernal Pools

Figure 5-1
Pilot Study Vernal Pools: Test Pool (5A-VP-4); Control Pools (5A-VP-3; 5A-VP-5)
Final Revised Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



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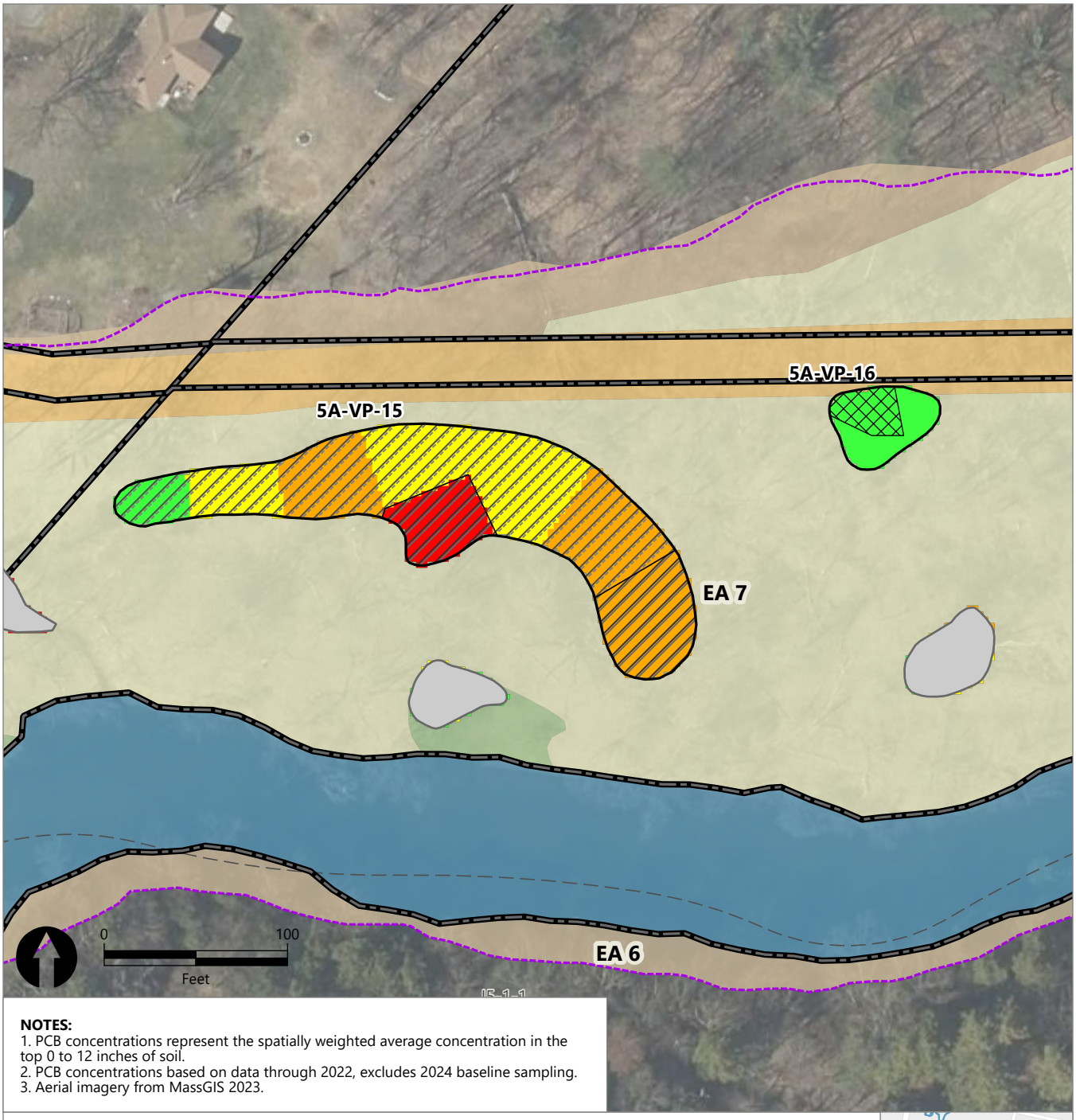
Filepath: \\gstfile01\GIS\Jobs\GE_0469\HousatonicRiver\Maps\Reports\VernalPools\PilotStudy\WorkPlan\R5APilotStudyWorkPlan.aprx | Figure 5-1to7 Pilot Study Vernal Pools

Figure 5-2
Pilot Study Vernal Pools: Test Pools (5A-VP-7; 5A-VP-9; 5A-VP-12); Control Pool (5A-VP-10)
Final Revised Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCB concentrations based on data through 2022, excludes 2024 baseline sampling.
3. Aerial imagery from MassGIS 2023.

LEGEND

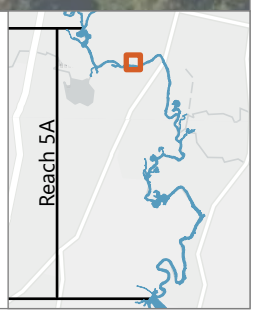
- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Non-TSCA Removal Area
- TSCA Amendment Placement Area
- Non-TSCA Amendment Placement Area
- Control
- Non-Pilot Study Pools

PCB Concentrations (0-1 ft; mg/kg)

- 0 - 2
- 2 - 10
- 10 - 25
- 25 - 50
- >50

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond



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Filepath: \\gstfile01\GIS\Jobs\GE_0469\HousatonicRiver\Maps\Reports\VernalPools\PilotStudy\WorkPlan\R5APilotStudyWorkPlan.aprx | Figure 5-1to7 Pilot Study Vernal Pools

Figure 5-3
Pilot Study Vernal Pools: Test Pools (5A-VP-15; 5A-VP-16)
Final Revised Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River

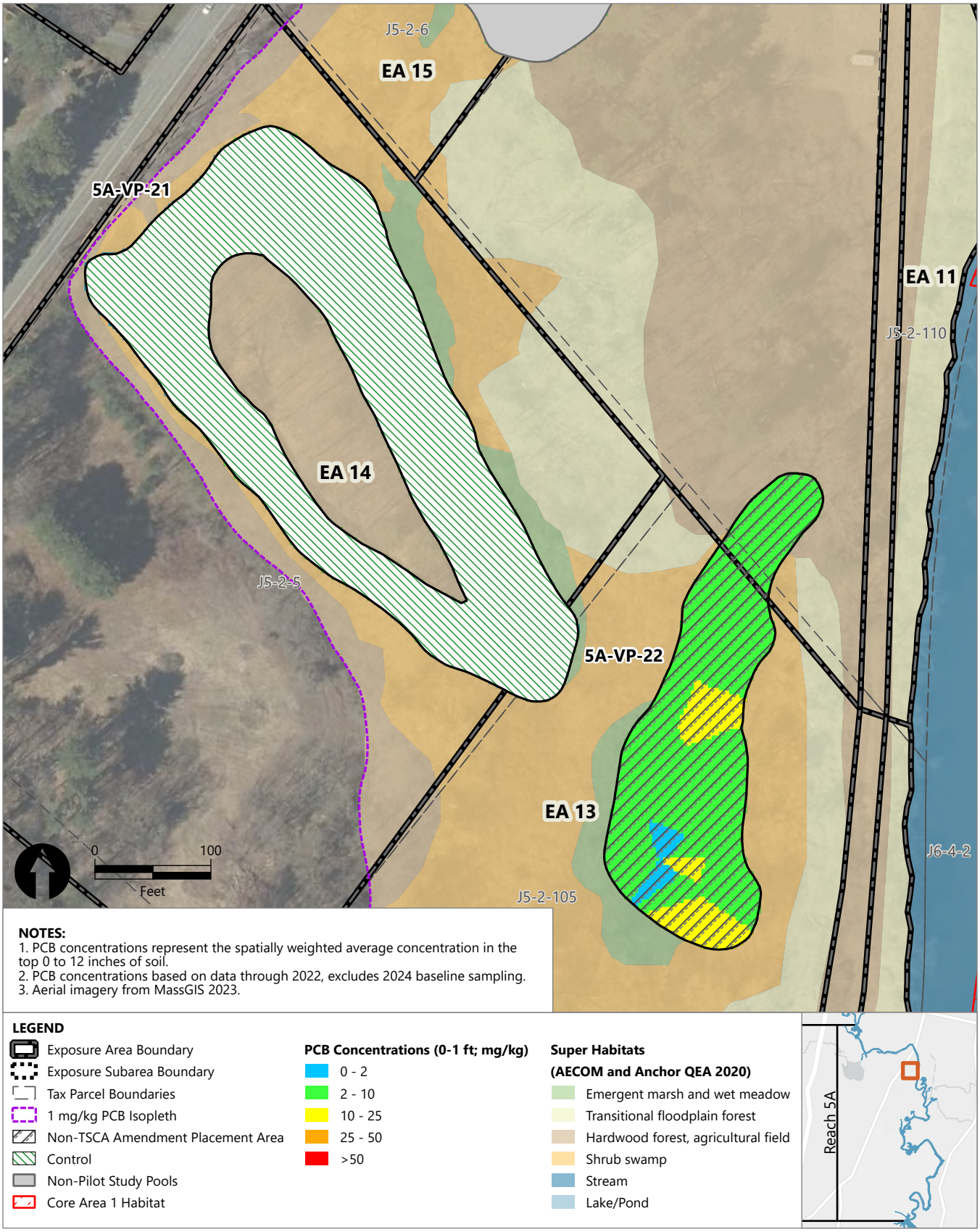

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Figure 5-4
Pilot Study Vernal Pools: Test Pool (5A-VP-22); Control Pool (5A-VP-21)
Final Revised Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River

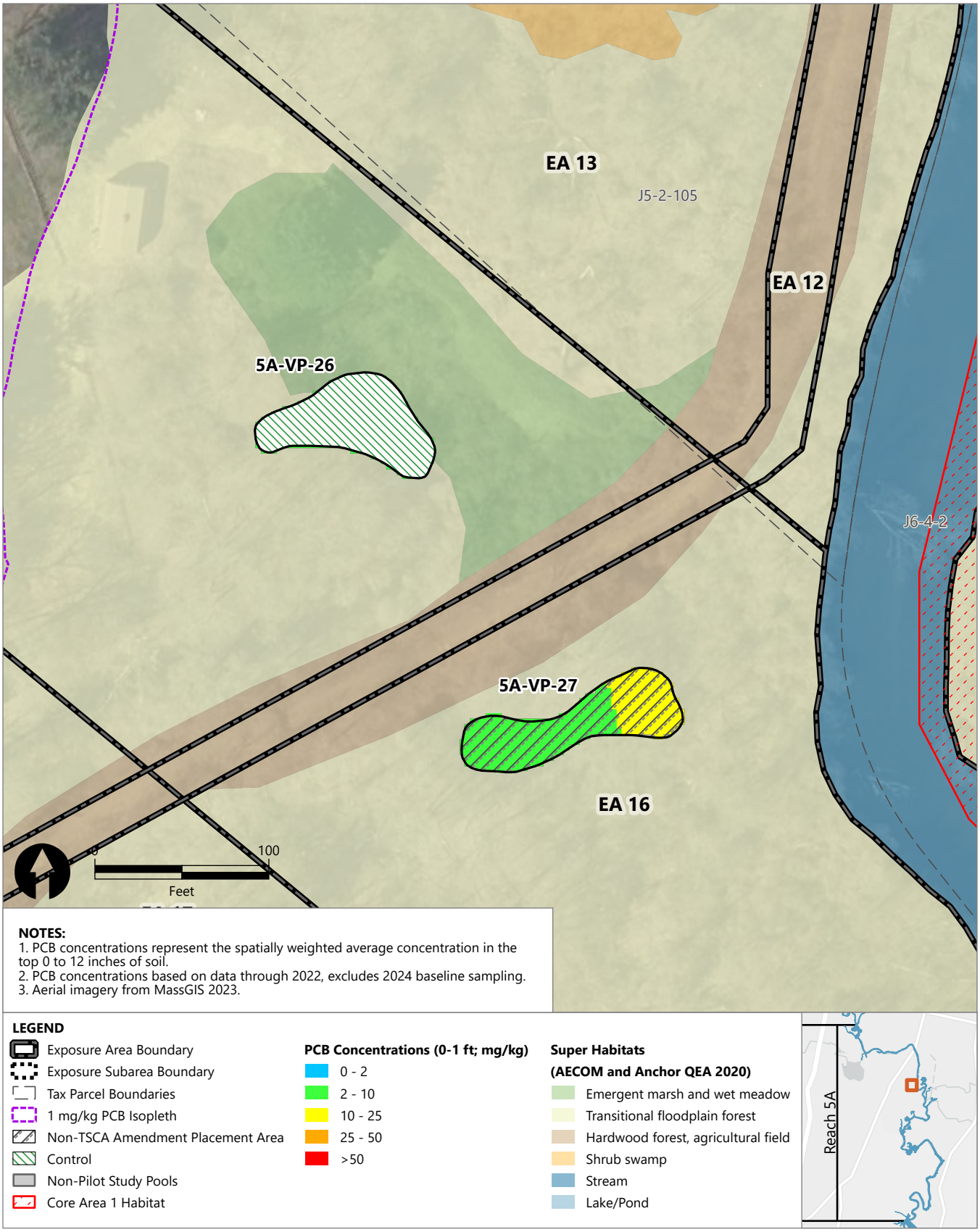

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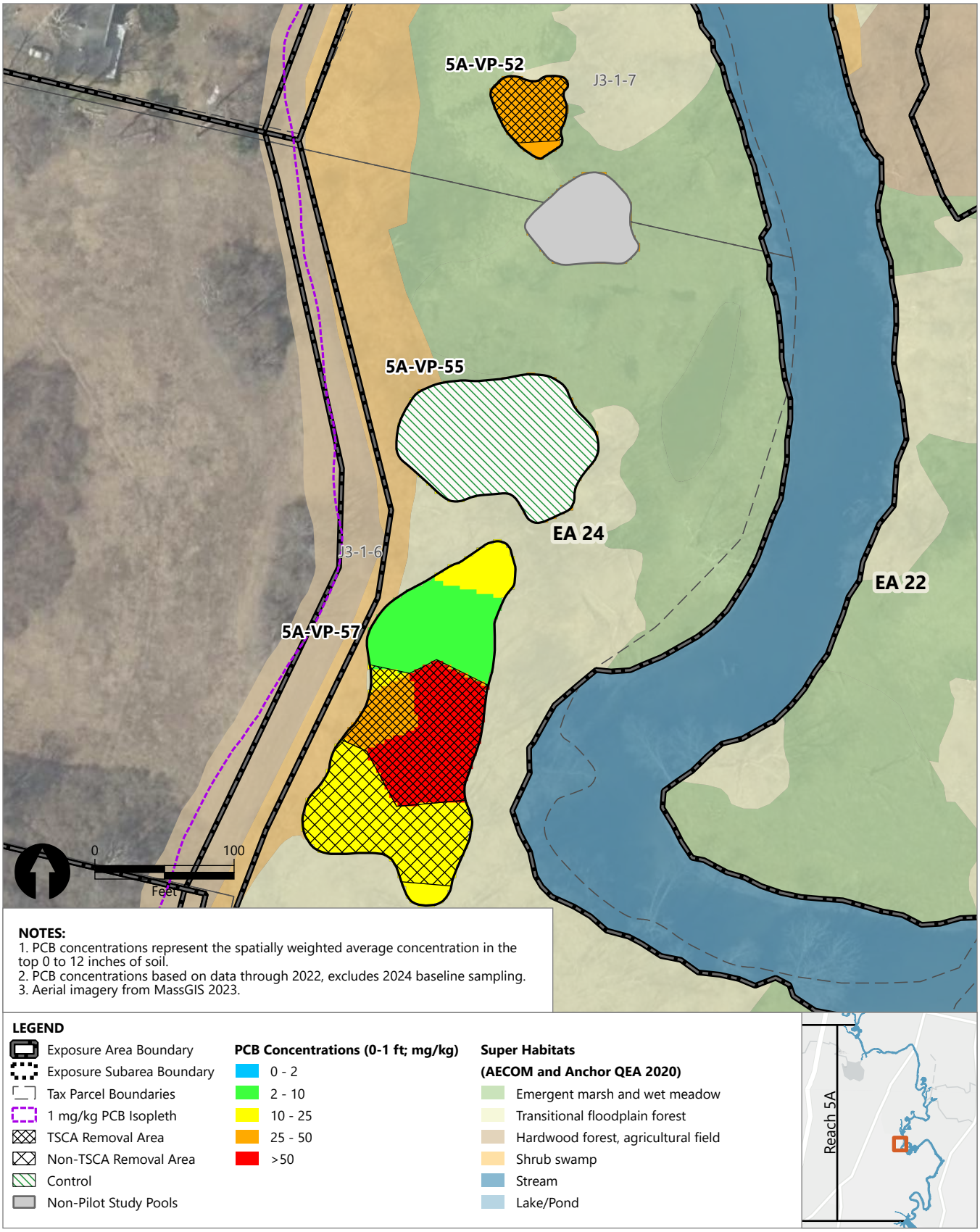
Figure 5-5
Pilot Study Vernal Pools: Test Pool (5A-VP-27); Control Pool (5A-VP-26)
Final Revised Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



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Filepath: \\gstfile01\GIS\Jobs\GE_0469\HousatonicRiver\Maps\Reports\VernalPools\PilotStudy\WorkPlan\R5APilotStudyWorkPlan.aprx | Figure 5-1to7 Pilot Study Vernal Pools

Figure 5-6
Pilot Study Vernal Pools: Test Pools (5A-VP-52; 5A-VP-57); Control Pool (5A-VP-55)
Final Revised Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River

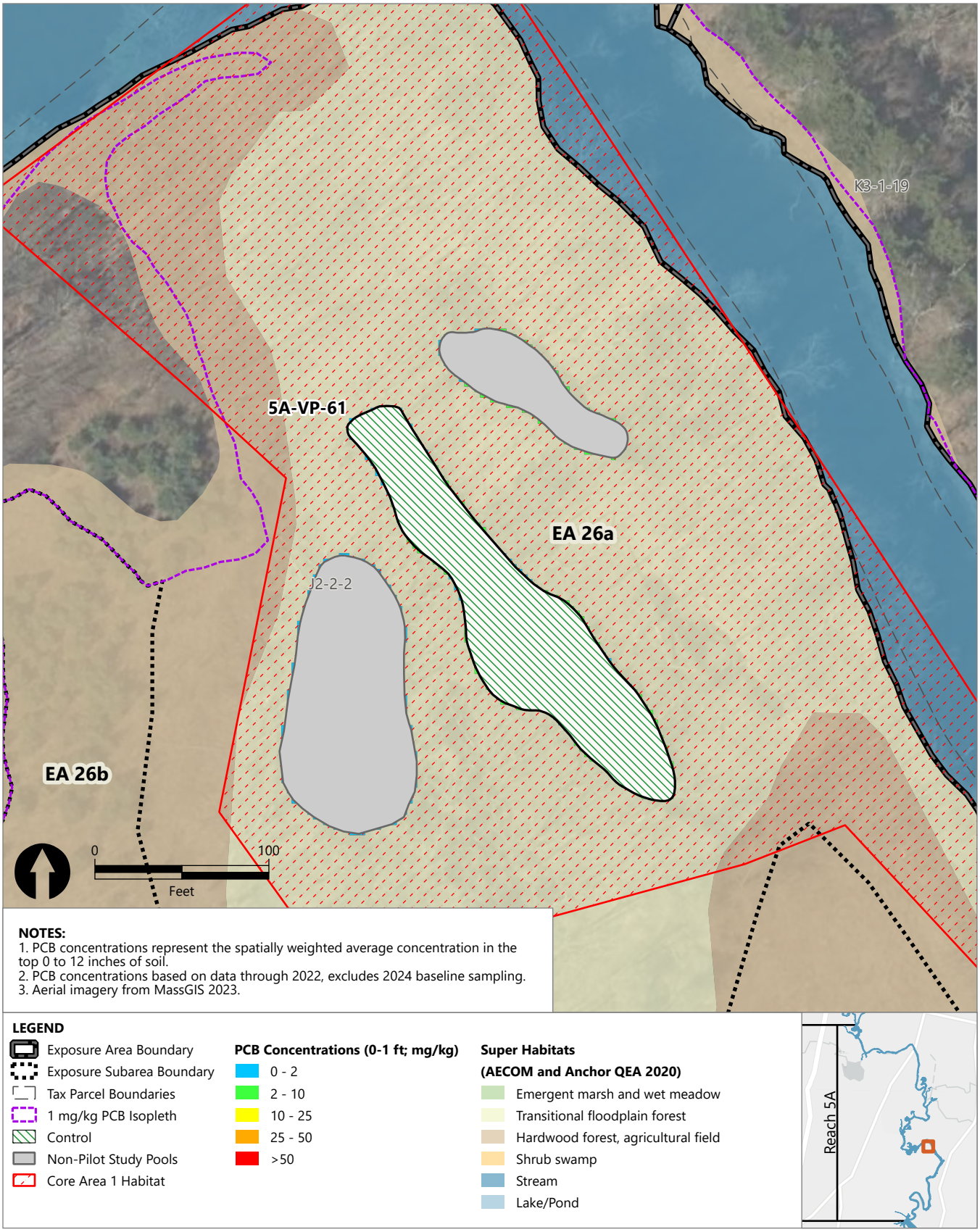

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Figure 5-7
Pilot Study Vernal Pools: Control Pool (5A-VP-61)
Final Revised Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River

Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)
- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

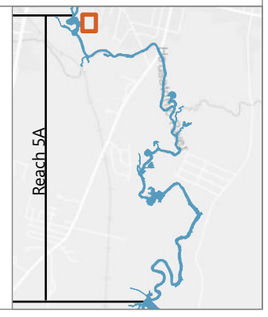
PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

- Non-TSCA Removal Area

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCBs >50 mg/kg in either 0-0.5 or 0.5-1 ft layer identified as TSCA.
3. Aerial imagery from MassGIS 2021.

0 100
Feet



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ANCHOR QEA

Figure 5-8
5A-VP-4 TSCA and Non-TSCA Removal Areas
Final Revised Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River

Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)
- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

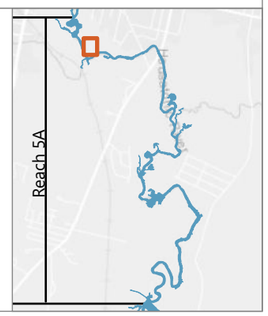
PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

- TSCA Removal Area
- Non-TSCA Removal Area

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCBs >50 mg/kg in either 0-0.5 or 0.5-1 ft layer identified as TSCA.
3. Aerial imagery from MassGIS 2021.

0 100
Feet



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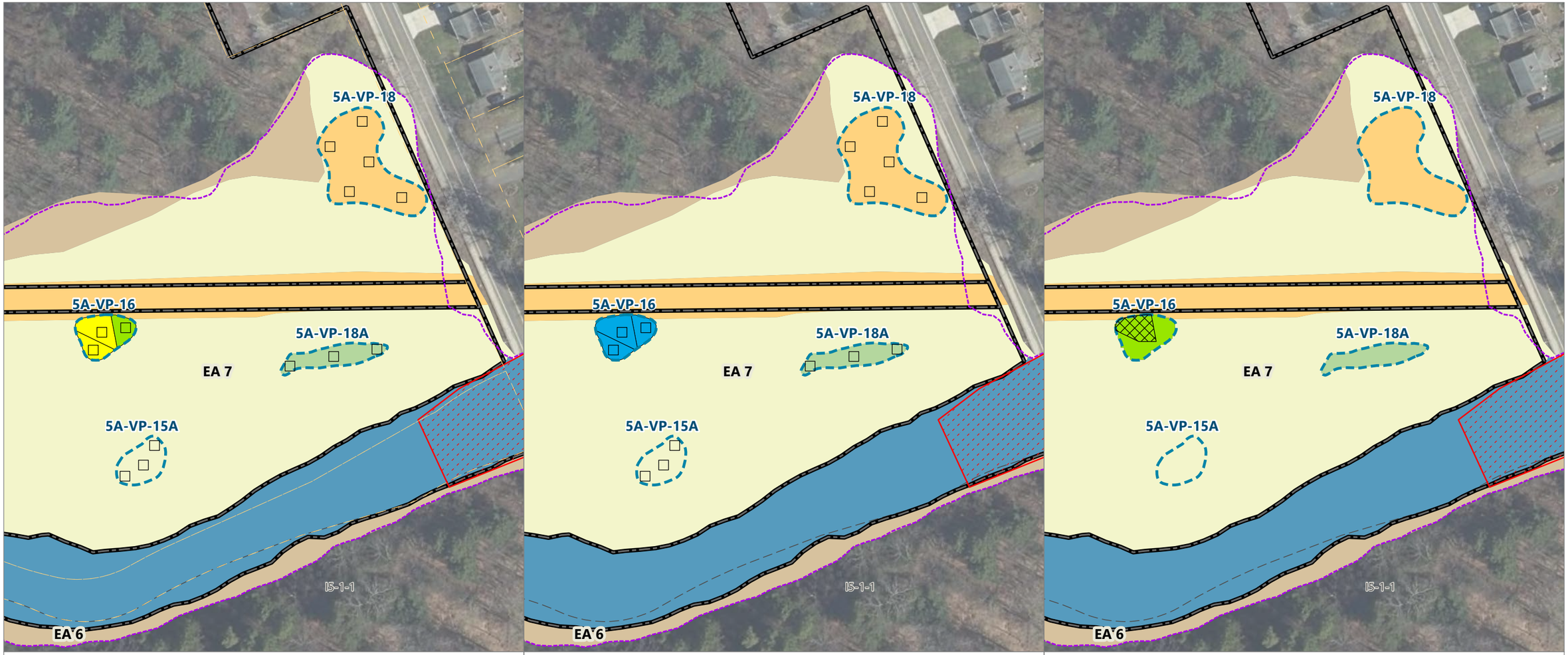
Filepath: \\gstfile01\GIS\Jobs\GE_0469\HousatonicRiver\Maps\Reports\VernalPools\PilotStudy\WorkPlan\R5APilotStudyWorkPlan.aprx | Figure 5-8to16 VP Removal and Treatment Areas

ANCHOR QEA

Figure 5-9
5A-VP-7 TSCA and Non-TSCA Removal Areas
Final Revised Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)
- Core Area 1 Habitat
- Non-Residential PDI Sampling Locations (2022)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

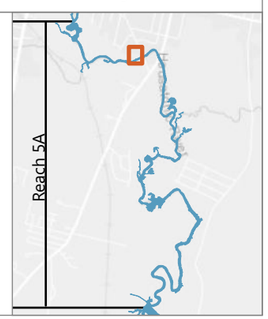
PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

- Non-TSCA Removal Area

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCBs >50 mg/kg in either 0-0.5 or 0.5-1 ft layer identified as TSCA.
3. Aerial imagery from MassGIS 2021.

0 100
Feet



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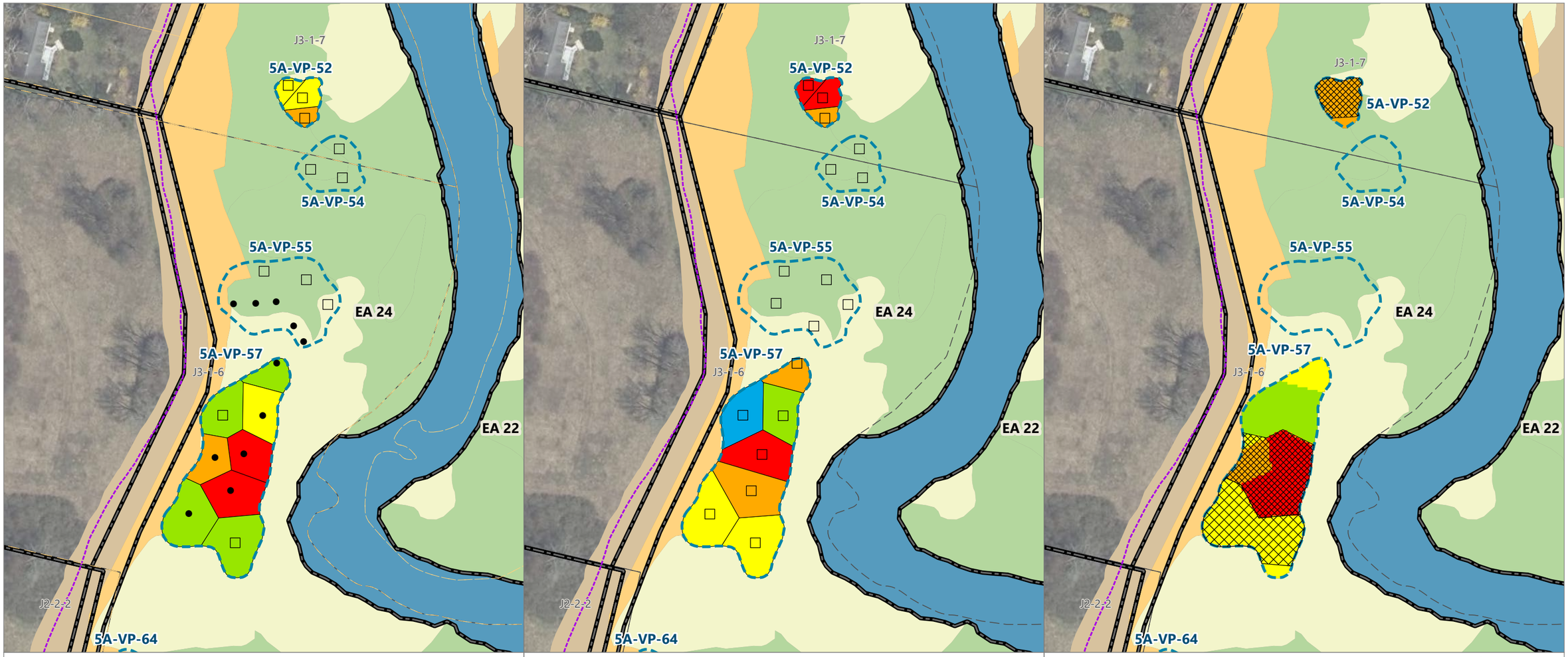
Filepath: \\gstfile01\GIS\Jobs\GE_0469\HousatonicRiver\Maps\Reports\VernalPools\PilotStudy\WorkPlan\R5APilotStudyWorkPlan.aprx | Figure 5-8to16 VP Removal and Treatment Areas

ANCHOR QEA

Figure 5-10
5A-VP-16 TSCA and Non-TSCA Removal Areas
Final Revised Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



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Filepath: \\gstfile01\GIS\Jobs\GE_0469\HousatonicRiver\Maps\Reports\VernalPools\PilotStudy\WorkPlan\R5APilotStudyWorkPlan.aprx | Figure 5-8to16 VP Removal and Treatment Areas

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Figure 5-11
5A-VP-52 and 5A-VP-57 TSCA and Non-TSCA Removal Areas
Final Revised Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River

Appendix A
Polychlorinated Biphenyl Concentrations in Vernal Pools

Table A-1
Polychlorinated Biphenyl Concentrations in Vernal Pools

Sample ID	Location ID	X Coordinate	Y Coordinate	Collection Date	Start Depth (feet)	End Depth (feet)	Sample Type	Total PCBs (mg/kg)	Qualifier	Sampling Program
I6-3-13_AD-6-01-200925-00-0.7	I6-3-13_AD-6	185145.0879	2986534.373	44099	0	0.7	--	42	J	2020–2021 PDI (Reach 5A Residential Floodplain Properties)
I6-3-13_AE-6-01-200925-00-0.6	I6-3-13_AE-6	185145.0879	2986509.373	44099	0	0.6	--	43	J	2020–2021 PDI (Reach 5A Residential Floodplain Properties)
I6-3-13_AE-7-01-200928-00-0.4	I6-3-13_AE-7	185170.0879	2986509.373	44102	0	0.4	--	27	J	2020–2021 PDI (Reach 5A Residential Floodplain Properties)
I6-3-13_AF-6-01-200925-00-0.4	I6-3-13_AF-6	185145.0879	2986484.373	44099	0	0.4	--	10	--	2020–2021 PDI (Reach 5A Residential Floodplain Properties)
I6-3-13_AF-9-01-200925-00-0.5	I6-3-13_AF-9	185220.0877	2986484.373	44099	0	0.5	--	61	--	2020–2021 PDI (Reach 5A Residential Floodplain Properties)
I6-3-13_AF/AG-4-01-200925-00-0.7	I6-3-13_AF/AG-4	185095.0881	2986472.099	44099	0	0.5	--	9.8	--	2020–2021 PDI (Reach 5A Residential Floodplain Properties)
I6-3-13_N-8-000001	I6-3-13_N-8	185191.8	2986519.2	41484.6701	0	1	--	50	J	2013–2015 PDI (Actual/Potential Lawn Properties)
I6-3-13_N-9-000001	I6-3-13_N-9	185216.5	2986519.5	41484.5833	0	1	--	61	J	2013–2015 PDI (Actual/Potential Lawn Properties)
J5-2-10_M-4-000001	J5-2-10_M-4	186641.9	2985748.4	41494.5132	0	1	--	2.9	J	2013–2015 PDI (Actual/Potential Lawn Properties)
J5-2-10_N-3-000001	J5-2-10_N-3	186591.9	2985697.9	41494.4951	0	1	--	0.91	--	2013–2015 PDI (Actual/Potential Lawn Properties)
J5-2-10_V-7-000001	J5-2-10_V-7	186791.8	2985298.3	41493.4583	0	1	--	2.4	--	2013–2015 PDI (Actual/Potential Lawn Properties)
VP10-T/U-18 (0-0.5')	VP10-T/U-18	184742.4553	2986827.465	44720.5903	0	0.5	--	22	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP10-T/U-20 (0-0.5')	VP10-T/U-20	184836.9879	2986825.502	44720.6035	0	0.5	--	2.21	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP10-U-19 (0-0.5')	VP10-U-19	184794.1858	2986813.54	44720.5972	0	0.5	--	2.42	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP12-B/C-1/2 (0-0.5')	VP12-B/C-1/2	184657.3622	2986368.054	44726.6361	0	0.5	--	16.3	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220614-1	VP12-B/C-1/2	184657.3622	2986368.054	44726	0	0.5	FD	9.92	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP12-B/C-4 (0-0.5')	VP12-B/C-4	184783.1392	2986367.784	44726.6201	0	0.5	--	8.75	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP12-B-2/3 (0-0.5')	VP12-B-2/3	184694.9012	2986391.617	44726.6292	0	0.5	--	13.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP12-C/D-4 (0-0.5')	VP12-C/D-4	184787.8361	2986331.325	44726.6083	0	0.5	--	8.01	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP13-G/H-3 (0-0.5')	VP13-G/H-3	185031.2414	2986519.79	44721.5264	0	0.5	--	5.88	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP13-H-2 (0-0.5')	VP13-H-2	184985.8698	2986509.613	44721.5201	0	0.5	--	14.1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP14-I/J-12/13 (0-0.5')	VP14-I/J-12/13	185495.3596	2986430.838	44722.4632	0	0.5	--	3.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP14-I/J-13 (0-0.5')	VP14-I/J-13	185516.1109	2986426.229	44722.4604	0	0.5	--	3.95	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP14-J-12 (0-0.5')	VP14-J-12	185479.4374	2986418.48	44722.4688	0	0.5	--	2.79	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP15A-I/J-17/18 (0-0.5')	VP15A-I/J-17/18	185749.7715	2986433.676	44725.6243	0	0.5	--	13.5	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP15A-I-17/18 (0-0.5')	VP15A-I-17/18	185768.1389	2986444.747	44725.6306	0	0.5	--	26.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP15A-I-18 (0-0.5')	VP15A-I-18	185779.1769	2986464.156	44722.5076	0	0.5	--	32.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP15-G/H-9 (0-0.5')	VP15-G/H-9	185327.9977	2986530.572	44721.6313	0	0.5	--	8.49	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220609-3	VP15-G/H-9	185327.9977	2986530.572	44721	0	0.5	FD	11.7	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP15-G-10 (0-0.5')	VP15-G-10	185375.0718	2986535.321	44727.3646	0	0.5	--	15.6	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP15-G-11 (0-0.5')	VP15-G-11	185427.4788	2986541.512	44722.409	0	0.5	--	25.2	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP15-G-12 (0-0.5')	VP15-G-12	185476.0525	2986555.987	44722.4361	0	0.5	--	31.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP15-G-13 (0-0.5')	VP15-G-13	185531.4822	2986539.285	44722.4521	0	0.5	--	16	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP15-H-12 (0-0.5')	VP15-H-12	185490.8475	2986519.918	44722.4542	0	0.5	--	42.6	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP15-H-14 (0-0.5')	VP15-H-14	185577.5684	2986510.166	44722.4736	0	0.5	--	14.6	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP15-I-15 (0-0.5')	VP15-I-15	185602.2478	2986468.471	44722.4778	0	0.5	--	33.5	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP16-F/G-17 (0-0.5')	VP16-F/G-17	185726.8424	2986576.626	44725.6604	0	0.5	--	16.7	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP16-F-17/18 (0-0.5')	VP16-F-17/18	185750.4404	2986581.149	44725.6438	0	0.5	--	9.44	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220613-2	VP16-F-17/18	185750.4404	2986581.149	44725	0	0.5	FD	4.38	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)

Table A-1
Polychlorinated Biphenyl Concentrations in Vernal Pools

Sample ID	Location ID	X Coordinate	Y Coordinate	Collection Date	Start Depth (feet)	End Depth (feet)	Sample Type	Total PCBs (mg/kg)	Qualifier	Sampling Program
VP16-G-17 (0-0.5')	VP16-G-17	185718.303	2986558.995	44725.6688	0	0.5	--	10.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP18A-G-21 (0-0.5')	VP18A-G-21	185913.6813	2986543.02	44725.5868	0	0.5	--	36.8	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP18A-G-21/22 (0-0.5')	VP18A-G-21/22	185957.1113	2986552.601	44722.5285	0	0.5	--	20.6	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220610-2	VP18A-G-21/22	185957.1113	2986552.601	44722	0	0.5	FD	11.3	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP18A-G-22/23 (0-0.5')	VP18A-G-22/23	186000.0456	2986559.842	44725.6007	0	0.5	--	20.7	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP18-B-22 (0-0.5')	VP18-B-22	185985.457	2986786.062	44725.5194	0	0.5	--	0.065	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP18-C-21/22 (0-0.5')	VP18-C-21/22	185953.4443	2986761.053	44725.5285	0	0.5	--	0.106	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP18-C-22 (0-0.5')	VP18-C-22	185992.1135	2986745.906	44725.5153	0	0.5	--	0.364	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP18-D-22 (0-0.5')	VP18-D-22	185972.7218	2986716.409	44725.5556	0	0.5	--	0.412	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP18-D-23 (0-0.5')	VP18-D-23	186024.7132	2986710.509	44725.541	0	0.5	--	0.735	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP19-B/C-4 (0-0.5')	VP19-B/C-4	187232.0372	2986328.124	44728.3875	0	0.5	--	6.19	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP19-B-2/3 (0-0.5')	VP19-B-2/3	187157.2234	2986335.82	44728.4069	0	0.5	--	7.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP19-C-3 (0-0.5')	VP19-C-3	187191.6141	2986304.255	44728.3965	0	0.5	--	11.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1A-B-5/6 (0-0.5')	VP1A-B-5/6	183005.0644	2988219.51	44706.4201	0	0.5	--	0.156	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220525-1	VP1A-B-5/6	183005.0644	2988219.51	44706	0	0.5	FD	0.262	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1A-B-6/7 (0-0.5')	VP1A-B-6/7	183053.8208	2988217.03	44706.4188	0	0.5	--	0.24	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1A-C-7 (0-0.5')	VP1A-C-7	183079.9369	2988156.516	44706.4236	0	0.5	--	0.132	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1B-E-7 (0-0.5')	VP1B-E-7	183072.2952	2988057.938	44706.3854	0	0.5	--	2.09	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1B-F-7 (0-0.5')	VP1B-F-7	183076.2854	2988019.833	44706.4111	0	0.5	--	6.02	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1B-F-7/8 (0-0.5')	VP1B-F-7/8	183102.8798	2987989.658	44706.3931	0	0.5	--	8.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1-I/J-2 (0-0.5')	VP1-I/J-2	182813.508	2987821.521	44706.3993	0	0.5	--	0.352	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1-J/K-3 (0-0.5')	VP1-J/K-3	182860.4233	2987786.096	44706.4868	0	0.5	--	0.826	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1-K/L-4 (0-0.5')	VP1-K/L-4	182914.2768	2987726.872	44707.3632	0	0.5	--	2.11	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1-L/M-4/5 (0-0.5')	VP1-L/M-4/5	182948.6741	2987674.015	44707.3542	0	0.5	--	6.14	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1-N-5 (0-0.5')	VP1-N-5	182974.423	2987608.418	44707.3688	0	0.5	--	5.63	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1-O-5 (0-0.5')	VP1-O-5	182979.567	2987543.193	44707.3813	0	0.5	--	1.15	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1-Q-7 (0-0.5')	VP1-Q-7	183089.6305	2987462.73	44707.3951	0	0.5	--	4.64	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1-Q-9 (0-0.5')	VP1-Q-9	183163.005	2987457.574	44707.4222	0	0.5	--	45.1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1-R/S-11/12 (0-0.5')	VP1-R/S-11/12	183298.6599	2987378.147	44707.4167	0	0.5	--	3.26	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP20-B-2 (0-0.5')	VP20-B-2	186543.012	2985789.129	44741.6229	0	0.5	--	8.92	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP20-B-3/4 (0-0.5')	VP20-B-3/4	186601.3403	2985813.355	44741.6194	0	0.5	--	13.1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP20-C-2/3 (0-0.5')	VP20-C-2/3	186554.7558	2985733.008	44741.6069	0	0.5	--	5.02	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP20-C-3/4 (0-0.5')	VP20-C-3/4	186601.717	2985748.469	44741.6146	0	0.5	--	2.81	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP20-C-4 (0-0.5')	VP20-C-4	186646.4295	2985766.457	44768.3715	0	0.5	--	13.2	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP20-D-4 (0-0.5')	VP20-D-4	186618.8901	2985709.649	44768.3771	0	0.5	--	7.64	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-A/B-4/5(0-0.5')	VP21-A/B-4/5	186354.8605	2985623.472	44748.366	0	0.5	--	6.56	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-B/C-3/4(0-0.5')	VP21-B/C-3/4	186309.2769	2985571.702	44748.3778	0	0.5	--	1.79	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220706-2	VP21-B/C-3/4	186309.2769	2985571.702	44748	0	0.5	FD	2.49	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-B/C-4/5(0-0.5')	VP21-B/C-4/5	186354.2483	2985576.923	44748.3708	0	0.5	--	7.5	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)

Table A-1
Polychlorinated Biphenyl Concentrations in Vernal Pools

Sample ID	Location ID	X Coordinate	Y Coordinate	Collection Date	Start Depth (feet)	End Depth (feet)	Sample Type	Total PCBs (mg/kg)	Qualifier	Sampling Program
VP21-C/D-2/3(0-0.5')	VP21-C/D-2/3	186265.5749	2985522.5	44748.4111	0	0.5	--	0.913	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-C/D-3(0-0.5')	VP21-C/D-3	186297.0237	2985530.894	44748.3924	0	0.5	--	1.68	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-C-4/5(0-0.5')	VP21-C-4/5	186348.5938	2985537.36	44747.7104	0	0.5	--	7.47	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-D/E-2(0-0.5')	VP21-D/E-2	186236.1455	2985478.675	44747.5208	0	0.5	--	0.77	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-D/E-3(0-0.5')	VP21-D/E-3	186283.0047	2985479.182	44747.5278	0	0.5	--	8.63	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-D-1/2(0-0.5')	VP21-D-1/2	186212.5091	2985513.942	44747.4931	0	0.5	--	0.774	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-E/F-6(0-0.5')	VP21-E/F-6	186437.7534	2985427.88	44748.4764	0	0.5	--	7.24	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-E/F-7(0-0.5')	VP21-E/F-7	186490.5252	2985425.301	44748.4486	0	0.5	--	13.5	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-E-2/3(0-0.5')	VP21-E-2/3	186262.1533	2985441.664	44747.5417	0	0.5	--	2.65	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-F/G-3/4(0-0.5')	VP21-F/G-3/4	186310.2582	2985381.736	44747.5618	0	0.5	--	3.22	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-G/H-8(0-0.5')	VP21-G/H-8	186543.2925	2985321.848	44748.5063	0	0.5	--	4.11	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-G-7/8(0-0.5')	VP21-G-7/8	186501.5157	2985335.053	44748.5	0	0.5	--	9.83	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-H/I-5/6(0-0.5')	VP21-H/I-5/6	186402.5917	2985277.176	44747.6118	0	0.5	--	7.6	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-H/I-8(0-0.5')	VP21-H/I-8	186547.7167	2985275.833	44748.5083	0	0.5	--	5.83	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-I/J-7/8(0-0.5')	VP21-I/J-7/8	186502.4238	2985218.672	44748.5771	0	0.5	--	4.88	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-I-6(0-0.5')	VP21-I-6	186448.6375	2985245.4	44747.6271	0	0.5	--	10.7	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-J/K-8(0-0.5')	VP21-J/K-8	186513.7394	2985181.241	44748.5694	0	0.5	--	9.11	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-J/K-9(0-0.5')	VP21-J/K-9	186597.6763	2985179.198	44748.5507	0	0.5	--	2.5	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP22-B-4/5 (0-0.5')	VP22-B-4/5	186809.0486	2985313.217	44768.3938	0	0.5	--	8.56	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP22-C-4(0-0.5')	VP22-C-4	186769.3344	2985250.941	44749.4931	0	0.5	--	6.2	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP22-D-3(0-0.5')	VP22-D-3	186746.3951	2985183.033	44749.4896	0	0.5	--	12.7	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP22-F/G-3/4 (0-0.5')	VP22-F/G-3/4	186740.4732	2985086.32	44749.5035	0	0.5	--	9.46	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP22-H-3/4(0-0.5')	VP22-H-3/4	186749.672	2984991.712	44749.5139	0	0.5	--	6.02	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24B-AA-36 (0-0.5')	VP24B-AA-36	188814.7703	2985109.813	44739.6431	0	0.5	--	0.246	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24B-AA-37 (0-0.5')	VP24B-AA-37	188889.8413	2985095.065	44739.6729	0	0.5	--	0.14	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24B-AB-35/36 (0-0.5')	VP24B-AB-35/36	188808.9793	2985062.518	44739.6479	0	0.5	--	0.1	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24B-AB-37 (0-0.5')	VP24B-AB-37	188871.155	2985035.561	44739.6611	0	0.5	--	0.195	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24B-AC-36 (0-0.5')	VP24B-AC-36	188821.85	2985012.206	44739.6542	0	0.5	--	0.0814	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24B-AD-36 (0-0.5')	VP24B-AD-36	188820.4094	2984942.038	44739.6889	0	0.5	--	0.15	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24B-AE-35 (0-0.5')	VP24B-AE-35	188776.5607	2984893.834	44739.6944	0	0.5	--	0.0889	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24B-AF-34/35 (0-0.5')	VP24B-AF-34/35	188757.5437	2984842.479	44739.5326	0	0.5	--	0.0697	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24B-AG-34/35 (0-0.5')	VP24B-AG-34/35	188762.541	2984788.212	44739.5243	0	0.5	--	0.048	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24B-Z-36/37 (0-0.5')	VP24B-Z-36/37	188854.2321	2985144.362	44739.6361	0	0.5	--	0.173	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24B-Z-37/38 (0-0.5')	VP24B-Z-37/38	188901.2274	2985135.756	44739.6806	0	0.5	--	0.18	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24-X/Y-32 (0-0.5')	VP24-X/Y-32	188611.582	2985224.189	44735.5688	0	0.5	--	0.526	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24-Y-30 (0-0.5')	VP24-Y-30	188539.6196	2985194.218	44735.5771	0	0.5	--	0.082	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24-Y-31 (0-0.5')	VP24-Y-31	188578.3911	2985206.61	44735.5826	0	0.5	--	0.11	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP26-B/C-1/2 (0-0.5')	VP26-B/C-1/2	186510.7398	2984531.154	44742.3681	0	0.5	--	10.2	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP26-B/C-3 (0-0.5')	VP26-B/C-3	186586.7767	2984517.282	44742.3819	0	0.5	--	3.81	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)

Table A-1
Polychlorinated Biphenyl Concentrations in Vernal Pools

Sample ID	Location ID	X Coordinate	Y Coordinate	Collection Date	Start Depth (feet)	End Depth (feet)	Sample Type	Total PCBs (mg/kg)	Qualifier	Sampling Program
VP26-B-2/3 (0-0.5')	VP26-B-2/3	186555.6764	2984542.957	44742.375	0	0.5	--	3.89	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP27-E/F-6 (0-0.5')	VP27-E/F-6	186728.0553	2984375.086	44742.4028	0	0.5	--	22.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP27-F-4 (0-0.5')	VP27-F-4	186629.4492	2984350.181	44742.3889	0	0.5	--	9.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP27-F-5 (0-0.5')	VP27-F-5	186680.3221	2984362.928	44742.4097	0	0.5	--	6.86	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP28A-B-2(0-0.5')	VP28A-B-2	187126.0886	2984086.907	44743.3924	0	0.5	--	18.1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP28A-C/D-2(0-0.5')	VP28A-C/D-2	187128.7487	2984024.972	44743.4097	0	0.5	--	11.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220701-1	VP28A-C/D-2	187128.7487	2984024.972	44743	0	0.5	FD	14	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP28A-C-2 (0-0.5')	VP28A-C-2	187125.127	2984055.514	44743.3611	0	0.5	--	68.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP2-T/U-11 (0-0.5')	VP2-T/U-11	183291.1648	2987269.923	44708.3653	0	0.5	--	1.36	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP2-U/V-10/11 (0-0.5')	VP2-U/V-10/11	183256.1059	2987221.413	44708.3722	0	0.5	--	4.81	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP2-U/V-11/12 (0-0.5')	VP2-U/V-11/12	183302.5329	2987227.207	44708.3667	0	0.5	--	2.49	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP2-V/W-10/11 (0-0.5')	VP2-V/W-10/11	183255.3421	2987180.551	44708.3764	0	0.5	--	1.6	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP2-V/W-11/12 (0-0.5')	VP2-V/W-11/12	183299.7849	2987185.915	44707.4799	0	0.5	--	10.1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP32-D/E-4/5(0-0.5')	VP32-D/E-4/5	186914.1487	2983619.902	44755.4333	0	0.5	--	10.5	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP32-F-5(0-0.5')	VP32-F-5	186938.4322	2983562.785	44754.6	0	0.5	--	36.2	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP33-A/B-8/9 (0-0.5')	VP33-A/B-8/9	187101.1608	2983766.913	44754.5292	0	0.5	--	17.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP33-B/C-7/8(0-0.5')	VP33-B/C-7/8	187049.0199	2983724.905	44754.5514	0	0.5	--	25.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP33-D/E-8/9(0-0.5')	VP33-D/E-8/9	187102.5463	2983622.034	44754.5681	0	0.5	--	35.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP35-H-8/9(0-0.5')	VP35-H-8/9	187106.5211	2983446.437	44755.4806	0	0.5	--	31.6	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP36-L-3(0-0.5')	VP36-L-3	186828.3441	2983241.349	44755.6111	0	0.5	--	12.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP36-L-4(0-0.5')	VP36-L-4	186880.6754	2983245.363	44755.5917	0	0.5	--	15.7	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220713-3	VP36-L-4	186880.6754	2983245.363	44755	0	0.5	FD	10.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP36-M-4(0-0.5')	VP36-M-4	186879.1511	2983200.861	44755.5979	0	0.5	--	4.1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP36-N-2/3(0-0.5')	VP36-N-2/3	186812.0305	2983154.273	44755.6181	0	0.5	--	6.04	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP3-B-4 (0-0.5')	VP3-B-4	184036.9813	2987734.643	44719.5715	0	0.5	--	4.97	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP3-C/D-3/4 (0-0.5')	VP3-C/D-3/4	184004.192	2987676.877	44715.334	0	0.5	--	6.61	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP3-C-4/5 (0-0.5')	VP3-C-4/5	184054.0222	2987685.636	44719.5792	0	0.5	--	6.62	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP3-D/E-2/3 (0-0.5')	VP3-D/E-2/3	183951.1898	2987629.494	44719.5882	0	0.5	--	39	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP3-D/E-3/4 (0-0.5')	VP3-D/E-3/4	184001.9567	2987629.411	44719.5847	0	0.5	--	20	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP40-R/S-7(0-0.5')	VP40-R/S-7	187016.0714	2982926.777	44756.384	0	0.5	--	29.7	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP40-R-6/7(0-0.5')	VP40-R-6/7	187008.1902	2982963.018	44756.3861	0	0.5	--	64.8	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP42-R/S-10(0-0.5')	VP42-R/S-10	187170.7129	2982919.078	44756.4868	0	0.5	--	14.8	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP42-R/S-10/11(0-0.5')	VP42-R/S-10/11	187208.4543	2982933.302	44756.4924	0	0.5	--	13.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP42-R-10(0-0.5')	VP42-R-10	187180.6787	2982954.386	44756.4771	0	0.5	--	29.1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP42-R-11(0-0.5')	VP42-R-11	187236.9247	2982955.465	44756.4743	0	0.5	--	10.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP42-S/T-10(0-0.5')	VP42-S/T-10	187173.8815	2982882.405	44756.491	0	0.5	--	11.2	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP49A-E/F-2 (0-0.5')	VP49A-E/F-2	186394.8712	2981913.158	44701.3972	0	0.5	--	32	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP49A-F-2/3 (0-0.5')	VP49A-F-2/3	186409.4204	2981901.792	44701.3993	0	0.5	--	7.18	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP49A-F-3 (0-0.5')	VP49A-F-3	186420.5779	2981892.837	44700.541	0	0.5	--	2.1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)

Table A-1
Polychlorinated Biphenyl Concentrations in Vernal Pools

Sample ID	Location ID	X Coordinate	Y Coordinate	Collection Date	Start Depth (feet)	End Depth (feet)	Sample Type	Total PCBs (mg/kg)	Qualifier	Sampling Program
VP4-E-9 (0-0.5')	VP4-E-9	184275.8151	2987600.76	44715.3514	0	0.5	--	28.1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP4-F-9 (0-0.5')	VP4-F-9	184268.4674	2987543.059	44719.6042	0	0.5	--	13.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP4-G-8 (0-0.5')	VP4-G-8	184221.1187	2987493.785	44715.3556	0	0.5	--	24	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP50-B/C-3 (0-0.5')	VP50-B/C-3	186426.9558	2982075.773	44701.4049	0	0.5	--	2.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP50-B-2/3 (0-0.5')	VP50-B-2/3	186400.2945	2982082.476	44701.4111	0	0.5	--	2.98	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP50-C-2 (0-0.5')	VP50-C-2	186386.2515	2982060.072	44704.6035	0	0.5	--	5.84	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220523-1	VP50-C-2	186386.2515	2982060.072	44704	0	0.5	FD	5.87	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP52-B-5/6 (0-0.5')	VP52-B-5/6	185983.3091	2981461.303	44762.5153	0	0.5	--	15.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220720-1	VP52-B-5/6	185983.3091	2981461.303	44762	0	0.5	FD	15.5	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP52-B-6 (0-0.5')	VP52-B-6	186000.3294	2981446.522	44762.5118	0	0.5	--	11.7	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP52-C-6 (0-0.5')	VP52-C-6	186002.998	2981422.242	44762.5063	0	0.5	--	29.5	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP54-C/D-7 (0-0.5')	VP54-C/D-7	186044.1856	2981385.661	44762.6056	0	0.5	--	45.5	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP54-D-6 (0-0.5')	VP54-D-6	186010.1194	2981361.244	44762.6	0	0.5	--	17.7	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP54-D-7 (0-0.5')	VP54-D-7	186047.9284	2981351.27	44762.6104	0	0.5	--	40.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP55-F/G-5 (0-0.5')	VP55-F/G-5	185954.5444	2981239.835	44763.5292	0	0.5	--	50.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP55-F/G-6 (0-0.5')	VP55-F/G-6	186004.9298	2981229.69	44763.5313	0	0.5	--	36.2	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP55-G-6/7 (0-0.5')	VP55-G-6/7	186030.5376	2981200.181	44763.5368	0	0.5	--	25.6	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP57-J-4 (0-0.5')	VP57-J-4	185905.3132	2981068.198	44763.5688	0	0.5	--	5.42	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP57-M-4/5 (0-0.5')	VP57-M-4/5	185920.1625	2980916.108	44763.5618	0	0.5	--	6.33	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP59A-P/Q-16 (0-05')	VP59A-P/Q-16	187065.2564	2981364.14	44698.5903	0	0.5	--	18	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP59A-P-15/16 (0-0.5')	VP59A-P-15/16	187051.555	2981387.246	44698.6319	0	0.5	--	17	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220517-1	VP59A-P-15/16	187051.555	2981387.246	44698	0	0.5	FD	7.53	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP59A-Q-15 (0-0.5')	VP59A-Q-15	187040.3273	2981356.793	44698.6014	0	0.5	--	3.36	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP5-I/J-13 (0-0.5')	VP5-I/J-13	184473.5585	2987377.522	44714.5708	0	0.5	--	7.54	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP5-I/J-14/15 (0-0.5')	VP5-I/J-14/15	184552.0216	2987373.399	44714.5653	0	0.5	--	2.26	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP5-J-13/14 (0-0.5')	VP5-J-13/14	184511.0335	2987351.412	44714.5729	0	0.5	--	5.85	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP60-B-16 (0-0.5')	VP60-B-16	187541.5802	2981115.242	44775.6368	0	0.5	--	1.91	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP61-C-15 (0-0.5')	VP61-C-15	187493.1909	2981063.402	44777.3569	0	0.5	--	1.22	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220804-2	VP61-C-15	187493.1909	2981063.402	44777	0	0.5	FD	1.36	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP61-E-16/17 (0-0.5')	VP61-E-16/17	187578.1838	2980947.893	44777.3681	0	0.5	--	3.51	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP62-E-14/15 (0-0.5')	VP62-E-14/15	187479.6739	2980971.86	44777.3597	0	0.5	--	2.26	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220804-1	VP62-E-14/15	187479.6739	2980971.86	44777	0	0.5	FD	2.15	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP62-F-14 (0-0.5')	VP62-F-14	187462.9921	2980921.573	44777.3611	0	0.5	--	2.48	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP62-F-15 (0-0.5')	VP62-F-15	187498.1981	2980919.675	44777.3625	0	0.5	--	1.43	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP62-G-14 (0-0.5')	VP62-G-14	187455.3229	2980865.577	44777.3764	0	0.5	--	2.06	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP62-G-15 (0-0.5')	VP62-G-15	187502.9924	2980865.882	44777.3736	0	0.5	--	3.94	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP63-J/K-17 (0-0.5')	VP63-J/K-17	187604.1247	2980680.26	44777.3861	0	0.5	--	1.71	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-P-2 (0-0.5')	VP64-P-2	185787.315	2980752.206	44763.6125	0	0.5	--	17.2	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-Q/R-10 (0-0.5')	VP64-Q/R-10	186203.8273	2980678.462	44763.6264	0	0.5	--	8.5	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)

Table A-1
Polychlorinated Biphenyl Concentrations in Vernal Pools

Sample ID	Location ID	X Coordinate	Y Coordinate	Collection Date	Start Depth (feet)	End Depth (feet)	Sample Type	Total PCBs (mg/kg)	Qualifier	Sampling Program
VP64-Q/R-5 (0-0.5')	VP64-Q/R-5	185955.4036	2980683.456	44769.55	0	0.5	--	27.6	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-Q/R-9 (0-0.5')	VP64-Q/R-9	186153.3077	2980688.858	44763.6264	0	0.5	--	8.91	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-Q-2/3 (0-0.5')	VP64-Q-2/3	185831.6046	2980712.849	44763.6146	0	0.5	--	16.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-Q-4 (0-0.5')	VP64-Q-4	185904.2731	2980696.098	44769.5479	0	0.5	--	68	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-Q-5 (0-0.5')	VP64-Q-5	185954.066	2980720.329	44763.6215	0	0.5	--	12.1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-Q-6 (0-0.5')	VP64-Q-6	186006.3727	2980704.206	44763.6215	0	0.5	--	6.94	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-Q-7 (0-0.5')	VP64-Q-7	186055.784	2980693.768	44763.6229	0	0.5	--	12.7	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-Q-8 (0-0.5')	VP64-Q-8	186104.9141	2980695.312	44763.6243	0	0.5	--	5.8	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-R/S-11 (0-0.5')	VP64-R/S-11	186265.382	2980630.464	44769.5743	0	0.5	--	9.95	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-R-6 (0-0.5')	VP64-R-6	186006.4343	2980658.279	44769.5535	0	0.5	--	17.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-R-7 (0-0.5')	VP64-R-7	186056.2768	2980648.991	44769.5625	0	0.5	--	20.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-R-8 (0-0.5')	VP64-R-8	186105.6067	2980647.449	44769.5653	0	0.5	--	12.2	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-R-9 (0-0.5')	VP64-R-9	186153.1726	2980644.269	44769.5681	0	0.5	--	11.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP65-S/T-9 (0-0.5')	VP65-S/T-9	186138.1966	2980589.009	44770.3507	0	0.5	--	25.7	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP65-T/U-11 (0-0.5')	VP65-T/U-11	186250.5287	2980542.207	44770.375	0	0.5	--	38.4	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP65-T-10 (0-0.5')	VP65-T-10	186215.6121	2980559.786	44770.3646	0	0.5	--	21.2	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP65-T-9 (0-0.5')	VP65-T-9	186170.6479	2980567.43	44770.3535	0	0.5	--	25.7	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP69-Q-5 (0-0.5')	VP69-Q-5	187010.7647	2980361.453	44768.6132	0	0.5	--	0.0833	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220726-5	VP69-Q-5	187010.7647	2980361.453	44768	0	0.5	FD	0.046	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP69-R-4/5 (0-0.5')	VP69-R-4/5	186986.6755	2980321.932	44768.609	0	0.5	--	0.0381	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP69-S/T-2/3 (0-0.5')	VP69-S/T-2/3	186885.6629	2980236.807	44768.6042	0	0.5	--	0.161	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP69-S-4 (0-0.5')	VP69-S-4	186942.2196	2980248.656	44768.5889	0	0.5	--	0.185	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP6-M/N-17 (0-0.5')	VP6-M/N-17	184685.0964	2987172.685	44720.5431	0	0.5	--	4.91	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP6-N-16 (0-0.5')	VP6-N-16	184643.1549	2987154.702	44714.6208	0	0.5	--	4.23	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP6-N-16/17 (0-0.5')	VP6-N-16/17	184663.5082	2987162.168	44714.6292	0	0.5	--	4.5	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP70-T/U-7 (0-0.5')	VP70-T/U-7	187086.779	2980186.824	44768.6569	0	0.5	--	0.0412	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP70-V-4 (0-0.5')	VP70-V-4	186962.7759	2980101.249	44768.5486	0	0.5	--	0.473	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP70-V-5/6 (0-0.5')	VP70-V-5/6	187028.4467	2980126.387	44768.5646	0	0.5	--	0.169	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP70-V-7 (0-0.5')	VP70-V-7	187104.7894	2980106.969	44768.5694	0	0.5	--	0.037	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP71-P-21 (0-0.5')	VP71-P-21	187814.5426	2980394.707	44777.5604	0	0.5	--	11.8	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP71-S-20 (0-0.5')	VP71-S-20	187756.169	2980246.262	44777.5715	0	0.5	--	10.2	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-V/W-23 (0-0.5')	VP72-V/W-23	187898.7298	2980076.068	44782.4028	0	0.5	--	8.05	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-V-19 (0-0.5')	VP72-V-19	187688.9526	2980097.198	44777.5833	0	0.5	--	2.47	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-W-18/19 (0-0.5')	VP72-W-18/19	187676.3542	2980058.496	44777.5861	0	0.5	--	4.91	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-W-20 (0-0.5')	VP72-W-20	187749.5591	2980054.267	44777.5889	0	0.5	--	2.74	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-W-21 (0-0.5')	VP72-W-21	187803.0564	2980058.621	44782.3972	0	0.5	--	4.96	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-X-19 (0-0.5')	VP72-X-19	187701.0546	2980008.064	44777.5944	0	0.5	--	8.55	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-X-20 (0-0.5')	VP72-X-20	187752.3728	2980005.585	44777.5972	0	0.5	--	10.5	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-X-21 (0-0.5')	VP72-X-21	187801.9065	2980009.131	44782.3903	0	0.5	--	12.8	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)

Table A-1
Polychlorinated Biphenyl Concentrations in Vernal Pools

Sample ID	Location ID	X Coordinate	Y Coordinate	Collection Date	Start Depth (feet)	End Depth (feet)	Sample Type	Total PCBs (mg/kg)	Qualifier	Sampling Program
VP72-X-22 (0-0.5')	VP72-X-22	187845.1515	2980014.75	44782.3924	0	0.5	--	7.95	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-X-23 (0-0.5')	VP72-X-23	187895.9512	2980014.419	44782.4063	0	0.5	--	9.44	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-Y-19 (0-0.5')	VP72-Y-19	187702.056	2979955.746	44777.6118	0	0.5	--	12.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220804-5	VP72-Y-19	187702.056	2979955.746	44777	0	0.5	FD	13.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-Y-20 (0-0.5')	VP72-Y-20	187750.9889	2979956.396	44777.6042	0	0.5	--	8.62	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-Y-21 (0-0.5')	VP72-Y-21	187802.2254	2979957.716	44777.6076	0	0.5	--	9.73	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-Y-22 (0-0.5')	VP72-Y-22	187857.5222	2979959.017	44782.3861	0	0.5	--	7.12	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-Z-21/22 (0-0.5')	VP72-Z-21/22	187829.5042	2979908.013	44782.3819	0	0.5	--	14.5	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP73-AA-24/25 (0-0.5')	VP73-AA-24/25	187986.4589	2979862.313	44782.4319	0	0.5	--	4.33	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP73A-AJ/AK-15/16 (0-0.5')	VP73A-AJ/AK-15/16	187520.5176	2979376.473	44781.5868	0	0.5	--	12.6	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP73A-AJ-17 (0-0.5')	VP73A-AJ-17	187585.7914	2979419.645	44781.5972	0	0.5	--	9.18	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220808-1	VP73A-AJ-17	187585.7914	2979419.645	44781	0	0.5	FD	9.11	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP73A-AK-15 (0-0.5')	VP73A-AK-15	187495.4488	2979349.654	44781.5764	0	0.5	--	11.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP73A-AL-14/15 (0-0.5')	VP73A-AL-14/15	187474.1037	2979316.614	44781.5694	0	0.5	--	28.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP73-AC-23 (0-0.5')	VP73-AC-23	187901.5805	2979751.478	44782.4396	0	0.5	--	9.79	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP74-Q/R-25/26 (0-0.5')	VP74-Q/R-25/26	188026.9444	2980329.935	44782.3813	0	0.5	--	8.52	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-B/C-2 (0-0.5')	VP77-B/C-2	187757.2173	2978884.871	44795.5799	0	0.5	--	2.41	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-C-4 (0-0.5')	VP77-C-4	187851.9398	2978841.543	44795.5729	0	0.5	--	3.04	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-D/E-6 (0-0.5')	VP77-D/E-6	187949.4085	2978790.734	44795.5625	0	0.5	--	1.53	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-D-2 (0-0.5')	VP77-D-2	187762.5975	2978801.854	44797.3917	0	0.5	--	2.56	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-F-3 (0-0.5')	VP77-F-3	187791.9075	2978699.708	44797.5097	0	0.5	--	40.2	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-F-4 (0-0.5')	VP77-F-4	187852.5019	2978706.954	44797.375	0	0.5	--	11.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220824-3	VP77-F-4	187852.5019	2978706.954	44797	0	0.5	FD	15.6	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-F-6 (0-0.5')	VP77-F-6	187941.7802	2978701.965	44792.3924	0	0.5	--	12.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-F-7 (0-0.5')	VP77-F-7	188001.7893	2978715.9	44792.3833	0	0.5	--	0.878	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-H/I-7/8 (0-0.5')	VP77-H/I-7/8	188026.74	2978586.487	44792.4042	0	0.5	--	6.01	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-H-2/3 (0-0.5')	VP77-H-2/3	187775.1401	2978609.539	44797.5035	0	0.5	--	11.1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-H-4 (0-0.5')	VP77-H-4	187854.5744	2978609.332	44797.3681	0	0.5	--	12.1	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220824-1	VP77-H-4	187854.5744	2978609.332	44797	0	0.5	FD	21.6	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-H-6 (0-0.5')	VP77-H-6	187951.7074	2978614.429	44792.4007	0	0.5	--	2.49	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77 I/J-2/3 (0-0.5')	VP77-I/J-2/3	187781.1572	2978539.539	44797.5	0	0.5	--	11.1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-I/J-4 (0-0.5')	VP77-I/J-4	187852.452	2978534.062	44797.3583	0	0.5	--	18.1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-I/J-6 (0-0.5')	VP77-I/J-6	187953.5847	2978538.232	44792.4139	0	0.5	--	2.77	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-K/L-3 (0-0.5')	VP77-K/L-3	187786.5056	2978435.408	44792.4264	0	0.5	--	10.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-K-6 (0-0.5')	VP77-K-6	187951.9629	2978476.489	44792.4097	0	0.5	--	8.2	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-L-4 (0-0.5')	VP77-L-4	187862.1737	2978401.045	44797.3521	0	0.5	--	24.7	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-M/N-3 (0-0.5')	VP77-M/N-3	187799.2552	2978330.699	44792.4354	0	0.5	--	13.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-M-9 (0-0.5')	VP77-M-9	188114.5833	2978346.488	44792.3938	0	0.5	--	2.18	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-N/O-9 (0-0.5')	VP77-N/O-9	188117.4226	2978284.759	44792.3965	0	0.5	--	0.49	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)

Table A-1
Polychlorinated Biphenyl Concentrations in Vernal Pools

Sample ID	Location ID	X Coordinate	Y Coordinate	Collection Date	Start Depth (feet)	End Depth (feet)	Sample Type	Total PCBs (mg/kg)	Qualifier	Sampling Program
VP77-N-4 (0-0.5')	VP77-N-4	187836.3191	2978294.296	44797.3479	0	0.5	--	18	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220824-8	VP77-N-4	187836.3191	2978294.296	44797	0	0.5	FD	24.8	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-P-2/3 (0-0.5')	VP77-P-2/3	187780.5115	2978209.396	44796.5007	0	0.5	--	16.8	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-P-9/10 (0-0.5')	VP77-P-9/10	188123.0912	2978195.555	44792.4097	0	0.5	--	0.0475	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-Q-12 (0-0.5')	VP77-Q-12	188237.134	2978170.825	44792.4479	0	0.5	--	0.237	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP79-E-2/3 (0-0.5')	VP79-E-2/3	186327.6145	2977713.387	44789.5694	0	0.5	--	10.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP7-T-3/4 (0-0.5')	VP7-T-3/4	184011.9764	2986850.712	44733.3743	0	0.5	--	10.7	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP7-U-4 (0-0.5')	VP7-U-4	184021.0049	2986800.734	44719.3993	0	0.5	--	18.8	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP7-V-3/4 (0-0.5')	VP7-V-3/4	184002.2405	2986744.568	44718.5167	0	0.5	--	43	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP7-X-5 (0-0.5')	VP7-X-5	184084.2233	2986643.689	44718.5361	0	0.5	--	21	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP80-B/C-2(0-0.5')	VP80-B/C-2	186296.252	2977823.87	44789.3764	0	0.5	--	37.2	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP80-B/C-3(0-0.5')	VP80-B/C-3	186351.9602	2977837.434	44789.384	0	0.5	--	14.8	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP80-B/C-4(0-0.5')	VP80-B/C-4	186401.5074	2977830.237	44789.4007	0	0.5	--	39.8	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP80-B-4(0-0.5')	VP80-B-4	186418.4047	2977864.876	44789.4319	0	0.5	--	9.24	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP80-B-5/6(0-0.5')	VP80-B-5/6	186471.2041	2977858.176	44789.5743	0	0.5	--	13.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP80-C-6(0-0.5')	VP80-C-6	186516.8096	2977821.146	44789.5688	0	0.5	--	26.8	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220816-1	VP80-C-6	186516.8096	2977821.146	44789	0	0.5	FD	24	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP80-D-7(0-0.5')	VP80-D-7	186554.5799	2977757.974	44789.5958	0	0.5	--	12.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP80-E-7/8(0-0.5')	VP80-E-7/8	186574.2708	2977707.472	44789.5979	0	0.5	--	32.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP80-F/G-7/8 (0-0.5')	VP80-F/G-7/8	186579.8846	2977639.958	44789.6076	0	0.5	--	28.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP81-F-10(0-0.5')	VP81-F-10	186716.2131	2977647.635	44789.5438	0	0.5	--	26.2	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP81-G-10/11(0-0.5')	VP81-G-10/11	186720.6744	2977616.496	44789.5403	0	0.5	--	47.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP81-G-11(0-0.5')	VP81-G-11	186741.9768	2977596.079	44789.5375	0	0.5	--	75	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP83-A/B-2 (0-0.5')	VP83-A/B-2	186891.0431	2977337.041	44785.3646	0	0.5	--	9.97	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP83-B/C-1/2 (0-0.5')	VP83-B/C-1/2	186873.7013	2977280.501	44791.3451	0	0.5	--	14.5	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP83-B-1/2(0-0.5')	VP83-B-1/2	186880.6747	2977308.833	44790.3507	0	0.5	--	12.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP8-U/V-10 (0-0.5')	VP8-U/V-10	184325.3006	2986780.251	44720.4875	0	0.5	--	12.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220608-2	VP8-U/V-10	184325.3006	2986780.251	44720	0	0.5	FD	11.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP8-V-10 (0-0.5')	VP8-V-10	184318.7812	2986732.829	44720.4743	0	0.5	--	26.6	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP8-W-9/10 (0-0.5')	VP8-W-9/10	184301.6071	2986693.319	44718.6076	0	0.5	--	20.5	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP9-V/W-14 (0-0.5')	VP9-V/W-14	184543.4383	2986721.751	44720.4042	0	0.5	--	34.8	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP9-W/X-13/14 (0-0.5')	VP9-W/X-13/14	184505.6821	2986681.659	44720.4	0	0.5	--	15.1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP9-X-13 (0-0.5')	VP9-X-13	184465.6776	2986645.707	44720.4417	0	0.5	--	36.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP9-X-14 (0-0.5')	VP9-X-14	184526.3953	2986640.175	44720.4347	0	0.5	--	26.2	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
H3-F0330006-0-0000-RE	F0330006	183929.9513	2987687.009	36378	0	0.5	--	75.5	--	1998–2002 EPA Supplemental Investigation
H2-F0389408-0-0000	F0389408	183043.0517	2988185.502	36108	0	0.5	--	2.45	--	1998–2002 EPA Supplemental Investigation
H3-F0489810-0-0000	F0489810	187664.0522	2979909.215	36123	0	0.5	--	5.06	J	1998–2002 EPA Supplemental Investigation
H3-F0489811-0-0000	F0489811	187709.1598	2979891.987	36123	0	0.5	--	20.2	J	1998–2002 EPA Supplemental Investigation
H3-F0489816-0-0000	F0489816	187941.8654	2979808.378	36123	0	0.5	--	36.6	J	1998–2002 EPA Supplemental Investigation

Table A-1
Polychlorinated Biphenyl Concentrations in Vernal Pools

Sample ID	Location ID	X Coordinate	Y Coordinate	Collection Date	Start Depth (feet)	End Depth (feet)	Sample Type	Total PCBs (mg/kg)	Qualifier	Sampling Program
H3-F0643005-0-0000	F0643005	187837.7417	2978778.491	36193	0	0.5	--	6.02	J	1998–2002 EPA Supplemental Investigation
H3-FL000029-0-0000	FL000029	184470.2359	2987415.968	36087	0	0.5	--	0.4825	U	1998–2002 EPA Supplemental Investigation
H3-FL000030-0-0000	FL000030	184523.0848	2987404.952	36087	0	0.5	--	0.446	U	1998–2002 EPA Supplemental Investigation
H3-FL000031-0-0000	FL000031	184566.467	2987405.685	36087	0	0.5	--	0.4815	U	1998–2002 EPA Supplemental Investigation
H3-FL000032-0-0000	FL000032	186719.8828	2984946.942	36087	0	0.5	--	15.9	--	1998–2002 EPA Supplemental Investigation
H3-FL001832-0-0000	FL000032	186719.8828	2984946.942	37237	0	0.5	--	--	J	1998–2002 EPA Supplemental Investigation
H3-FL000033-0-0000	FL000033	186709.3599	2984984.868	36087	0	0.5	--	1.85	--	1998–2002 EPA Supplemental Investigation
H3-FL000034-0-0000	FL000034	186707.3209	2985018.975	36087	0	0.5	--	1.18	--	1998–2002 EPA Supplemental Investigation
H3-FL000035-1-0000	FL000035	186698.4634	2985065.312	36087	0	0.5	FD	1.457	0	1998–2002 EPA Supplemental Investigation
H3-FL000035-0-0000	FL000035	186698.4634	2985065.312	36087	0	0.5	--	--	--	1998–2002 EPA Supplemental Investigation
H3-FL000036-0-0000	FL000036	186695.9672	2985114.151	36087	0	0.5	--	0.512	J	1998–2002 EPA Supplemental Investigation
H3-FL000037-0-0000	FL000037	186401.347	2985559.776	36088	0	0.5	--	0.835	J	1998–2002 EPA Supplemental Investigation
H3-FL000037-1-0000	FL000037	186401.347	2985559.776	36088	0	0.5	FD	--	J	1998–2002 EPA Supplemental Investigation
H3-FL000038-0-0000	FL000038	186489.3784	2985382.289	36088	0	0.5	--	2.37	J	1998–2002 EPA Supplemental Investigation
H3-FL000039-0-0000	FL000039	186545.5405	2985191.515	36088	0	0.5	--	1.23	J	1998–2002 EPA Supplemental Investigation
H3-FL000040-0-0000	FL000040	186357.3809	2985350.179	36088	0	0.5	--	0.75	U	1998–2002 EPA Supplemental Investigation
H3-FL000041-0-0000	FL000041	186305.7245	2985432.925	36088	0	0.5	--	0.745	U	1998–2002 EPA Supplemental Investigation
H3-FL000042-0-0000	FL000042	187120.476	2980312.613	36089	0	0.5	--	0.34	U	1998–2002 EPA Supplemental Investigation
H3-FL000043-0-0000	FL000043	187091.7831	2980262.056	36089	0	0.5	--	0.3005	U	1998–2002 EPA Supplemental Investigation
H3-FL000044-0-0000	FL000044	187016.3652	2980170.832	36089	0	0.5	--	0.286	U	1998–2002 EPA Supplemental Investigation
H3-FL000045-0-0000	FL000045	187056.2494	2980219.82	36089	0	0.5	--	0.302	U	1998–2002 EPA Supplemental Investigation
H3-FL000046-0-0000	FL000046	186968.7122	2980290.19	36089	0	0.5	--	0.3205	U	1998–2002 EPA Supplemental Investigation
H3-FL000047-0-0000	FL000047	186938.4634	2980268.62	36089	0	0.5	--	0.305	U	1998–2002 EPA Supplemental Investigation
H3-FL000048-0-0000	FL000048	186908.0984	2980270.743	36089	0	0.5	--	0.342	U	1998–2002 EPA Supplemental Investigation
H3-FL000049-0-0000	FL000049	186881.3361	2980285.661	36089	0	0.5	--	0.3445	U	1998–2002 EPA Supplemental Investigation
H3-FL000075-0-0000	FL000075	184212.4066	2987653.482	36166	0	0.5	--	44.8	J	1998–2002 EPA Supplemental Investigation
H3-FL000076-0-0000	FL000076	184225.2385	2987644.881	36166	0	0.5	--	39	J	1998–2002 EPA Supplemental Investigation
H3-FL000077-0-0000	FL000077	184252.9328	2987639.936	36166	0	0.5	--	28	J	1998–2002 EPA Supplemental Investigation
H3-FL000078-0-0000	FL000078	184252.8543	2987624.741	36166	0	0.5	--	27.4	J	1998–2002 EPA Supplemental Investigation
H3-FL000079-0-0000	FL000079	184258.9697	2987624.06	36166	0	0.5	--	14.7	J	1998–2002 EPA Supplemental Investigation
H3-FL000080-0-0000	FL000080	184055.1896	2986743.711	36166	0	0.5	--	13.2	J	1998–2002 EPA Supplemental Investigation
H3-FL000081-0-0000	FL000081	184047.0054	2986729.176	36166	0	0.5	--	15.2	J	1998–2002 EPA Supplemental Investigation
H3-FL000082-0-0000	FL000082	184061.6008	2986717.171	36166	0	0.5	--	22.2	J	1998–2002 EPA Supplemental Investigation
H3-FL000083-0-0000	FL000083	184049.7972	2986707.41	36166	0	0.5	--	25.7	J	1998–2002 EPA Supplemental Investigation
H3-FL000084-0-0000	FL000084	184056.1881	2986694.282	36166	0	0.5	--	16	J	1998–2002 EPA Supplemental Investigation
H3-FL000085-0-0000	FL000085	184604.366	2986734.78	36167	0	0.5	--	15	J	1998–2002 EPA Supplemental Investigation
H3-FL000086-0-0000	FL000086	184589.0745	2986728.007	36167	0	0.5	--	20.4	J	1998–2002 EPA Supplemental Investigation
H3-FL000087-0-0000	FL000087	184575.0385	2986691.793	36167	0	0.5	--	59.2	J	1998–2002 EPA Supplemental Investigation
H3-FL000088-0-0000	FL000088	184616.4339	2986676.084	36167	0	0.5	--	154	J	1998–2002 EPA Supplemental Investigation

Table A-1
Polychlorinated Biphenyl Concentrations in Vernal Pools

Sample ID	Location ID	X Coordinate	Y Coordinate	Collection Date	Start Depth (feet)	End Depth (feet)	Sample Type	Total PCBs (mg/kg)	Qualifier	Sampling Program
H3-FL000089-0-0000	FL000089	184628.4101	2986632.485	36167	0	0.5	--	54.3	J	1998–2002 EPA Supplemental Investigation
H3-FL000093-0-0000	FL000093	184806.8684	2986901.308	36167	0	0.5	--	6.79	J	1998–2002 EPA Supplemental Investigation
H3-FL000094-0-0000	FL000094	184828.0523	2986866.875	36167	0	0.5	--	9.16	J	1998–2002 EPA Supplemental Investigation
H3-FL000103-0-0000	FL000103	187004.0484	2982997.978	36168	0	0.5	--	144	J	1998–2002 EPA Supplemental Investigation
H3-FL000104-0-0000	FL000104	187010.6547	2983017.426	36168	0	0.5	--	90.5	J	1998–2002 EPA Supplemental Investigation
H3-FL000105-0-0000	FL000105	187020.6098	2983037.848	36168	0	0.5	--	79.9	J	1998–2002 EPA Supplemental Investigation
H3-FL000106-0-0000	FL000106	186831.9516	2983190.642	36168	0	0.5	--	7.07	J	1998–2002 EPA Supplemental Investigation
H3-FL000107-0-0000	FL000107	186808.7372	2983182.855	36168	0	0.5	--	6.42	J	1998–2002 EPA Supplemental Investigation
H3-FL000108-0-0000	FL000108	186786.3753	2983188.29	36168	0	0.5	--	11.5	J	1998–2002 EPA Supplemental Investigation
H3-FL000109-0-0000	FL000109	186763.9706	2983195.555	36168	0	0.5	--	5.87	J	1998–2002 EPA Supplemental Investigation
H3-FL000122-0-0000	FL000122	187119.4275	2983662.117	36171	0	0.5	--	14.3	J	1998–2002 EPA Supplemental Investigation
H3-FL000123-0-0000	FL000123	187056.2586	2983683.73	36171	0	0.5	--	46.6	J	1998–2002 EPA Supplemental Investigation
H3-FL000124-0-0000	FL000124	187010.1601	2983673.637	36171	0	0.5	--	64.1	J	1998–2002 EPA Supplemental Investigation
H3-FL000125-0-0000	FL000125	187059.97	2983644.891	36171	0	0.5	--	55.6	J	1998–2002 EPA Supplemental Investigation
H3-FL000127-0-0000	FL000127	186914.6832	2983577.496	36171	0	0.5	--	19.8	J	1998–2002 EPA Supplemental Investigation
H3-FL000128-0-0000	FL000128	186903.6812	2983591.048	36171	0	0.5	--	6.25	J	1998–2002 EPA Supplemental Investigation
H3-FL000129-0-0000	FL000129	187199.7832	2983303.246	36172	0	0.5	--	47.6	J	1998–2002 EPA Supplemental Investigation
H3-FL000130-0-0000	FL000130	187157.1394	2983345.143	36172	0	0.5	--	9.13	J	1998–2002 EPA Supplemental Investigation
H3-FL000131-0-0000	FL000131	187140.6572	2983399.877	36172	0	0.5	--	74.7	J	1998–2002 EPA Supplemental Investigation
H3-FL000132-0-0000	FL000132	187079.341	2983403.775	36172	0	0.5	--	76.4	J	1998–2002 EPA Supplemental Investigation
H3-FL000135-0-0000	FL000135	187554.9901	2980691.564	36172	0	0.5	--	6.01	J	1998–2002 EPA Supplemental Investigation
H3-FL000136-0-0000	FL000136	187577.7849	2980694.952	36172	0	0.5	--	5.83	J	1998–2002 EPA Supplemental Investigation
H3-FL000137-0-0000	FL000137	187623.7455	2980896.832	36173	0	0.5	--	3.49	J	1998–2002 EPA Supplemental Investigation
H3-FL000138-0-0000	FL000138	187612.9355	2980916.134	36173	0	0.5	--	0.4775	UJ	1998–2002 EPA Supplemental Investigation
H3-FL000139-0-0000	FL000139	187600.9087	2980925.587	36173	0	0.5	--	8.84	J	1998–2002 EPA Supplemental Investigation
H3-FL000140-0-0000	FL000140	187564.3571	2980985.906	36173	0	0.5	--	3.1	J	1998–2002 EPA Supplemental Investigation
H3-FL000141-0-0000	FL000141	187536.4982	2981013.498	36173	0	0.5	--	4.64	J	1998–2002 EPA Supplemental Investigation
H3-FL000142-0-0000	FL000142	187613.2822	2981065.467	36173	0	0.5	--	10.1	J	1998–2002 EPA Supplemental Investigation
H3-FL000143-0-0000	FL000143	187582.6646	2981091.065	36173	0	0.5	--	13.4	J	1998–2002 EPA Supplemental Investigation
H3-FL000144-0-0000	FL000144	187563.1497	2981099.788	36173	0	0.5	--	7.12	J	1998–2002 EPA Supplemental Investigation
H3-FL000145-0-0000	FL000145	187772.631	2980418.237	36173	0	0.5	--	2.99	J	1998–2002 EPA Supplemental Investigation
H3-FL000146-0-0000	FL000146	187744.4524	2980369.377	36173	0	0.5	--	37.4	J	1998–2002 EPA Supplemental Investigation
H3-FL000147-0-0000	FL000147	187789.0112	2980346.54	36173	0	0.5	--	4.83	J	1998–2002 EPA Supplemental Investigation
H3-FL000148-0-0000	FL000148	187743.3815	2980323.689	36173	0	0.5	--	5.76	J	1998–2002 EPA Supplemental Investigation
H3-FL000149-0-0000	FL000149	187773.5187	2980303.423	36173	0	0.5	--	18.4	J	1998–2002 EPA Supplemental Investigation
H3-FL000150-0-0000	FL000150	187964.106	2980401.519	36173	0	0.5	--	57.5	J	1998–2002 EPA Supplemental Investigation
H3-FL000151-0-0000	FL000151	187995.6551	2980375.15	36173	0	0.5	--	19.1	J	1998–2002 EPA Supplemental Investigation
H3-FL000152-0-0000	FL000152	188029.1824	2980303.112	36173	0	0.5	--	18.2	J	1998–2002 EPA Supplemental Investigation
H3-FL000153-0-0000	FL000153	188030.0983	2980272.279	36173	0	0.5	--	14.2	J	1998–2002 EPA Supplemental Investigation

Table A-1
Polychlorinated Biphenyl Concentrations in Vernal Pools

Sample ID	Location ID	X Coordinate	Y Coordinate	Collection Date	Start Depth (feet)	End Depth (feet)	Sample Type	Total PCBs (mg/kg)	Qualifier	Sampling Program
H3-FL000154-0-0000	FL000154	188081.375	2980222.938	36173	0	0.5	--	15.5	J	1998–2002 EPA Supplemental Investigation
H3-FL000156-0-0000	FL000156	186365.7646	2977684.732	36178	0	0.5	--	11.6	J	1998–2002 EPA Supplemental Investigation
H3-FL000157-0-0000	FL000157	186350.2424	2977702.765	36178	0	0.5	--	8.8	J	1998–2002 EPA Supplemental Investigation
H3-FL000158-0-0000	FL000158	186462.5263	2977824.13	36178	0	0.5	--	33.8	J	1998–2002 EPA Supplemental Investigation
H3-FL000159-0-0000	FL000159	186488.6482	2977789.557	36178	0	0.5	--	26.2	J	1998–2002 EPA Supplemental Investigation
H3-FL000160-0-0000	FL000160	186507.8555	2977738.85	36178	0	0.5	--	37.4	J	1998–2002 EPA Supplemental Investigation
H3-FL000161-0-0000	FL000161	186536.2822	2977665.862	36178	0	0.5	--	132	J	1998–2002 EPA Supplemental Investigation
H3-FL000171-0-0000	FL000171	185864.9996	2980950.817	36199	0	0.5	--	6.58	J	1998–2002 EPA Supplemental Investigation
H3-FL000172-0-0000	FL000172	185914.6811	2980978.281	36199	0	0.5	--	117	J	1998–2002 EPA Supplemental Investigation
H3-FL000173-0-0000	FL000173	185930.5288	2981022.159	36199	0	0.5	--	78	J	1998–2002 EPA Supplemental Investigation
H3-FL000174-0-0000	FL000174	185953.0822	2981067.554	36199	0	0.5	--	13.4	J	1998–2002 EPA Supplemental Investigation
H3-FL000175-0-0000	FL000175	185969.6835	2981130.067	36199	0	0.5	--	8.41	J	1998–2002 EPA Supplemental Investigation
H3-FL000176-0-0000	FL000176	185918.1923	2981200.697	36199	0	0.5	--	5.89	J	1998–2002 EPA Supplemental Investigation
H3-FL000177-0-0000	FL000177	185944.7355	2981201.771	36199	0	0.5	--	10.7	J	1998–2002 EPA Supplemental Investigation
H3-FL000178-0-0000	FL000178	185969.0481	2981203.291	36199	0	0.5	--	11.7	J	1998–2002 EPA Supplemental Investigation
H3-FL000179-0-0000	FL000179	185989.9073	2981174.392	36199	0	0.5	--	4.33	J	1998–2002 EPA Supplemental Investigation
H3-FL000180-0-0000	FL000180	186001.8763	2981155.827	36199	0	0.5	--	64.6	J	1998–2002 EPA Supplemental Investigation
H3-FL000181-0-0000	FL000181	187835.0807	2980064.076	36199	0	0.5	--	0.72	UJ	1998–2002 EPA Supplemental Investigation
H3-FL000183-0-0000	FL000183	187758.167	2979570.911	36199	0	0.5	--	12.4	J	1998–2002 EPA Supplemental Investigation
H3-FL000184-0-0000	FL000184	187760.0275	2979593.519	36199	0	0.5	--	26.4	J	1998–2002 EPA Supplemental Investigation
H3-FL000185-0-0000	FL000185	187763.542	2979621.862	36199	0	0.5	--	78.1	J	1998–2002 EPA Supplemental Investigation
H3-FL000186-0-0000	FL000186	187857.0626	2979700.271	36199	0	0.5	--	19.3	J	1998–2002 EPA Supplemental Investigation
H3-FL000187-0-0000	FL000187	187829.5559	2979681.316	36199	0	0.5	--	15	J	1998–2002 EPA Supplemental Investigation
H3-FL000188-0-0000	FL000188	187812.9377	2979670.637	36199	0	0.5	--	14	J	1998–2002 EPA Supplemental Investigation
H3-FL000377-0-0000	FL000377	186726.1574	2985124.9	36227	0	0.5	--	23	J	1998–2002 EPA Supplemental Investigation
H3-FL000378-0-0000	FL000378	186706.2201	2985133.095	36227	0	0.5	--	15.7	J	1998–2002 EPA Supplemental Investigation
H3-FL000379-0-0000	FL000379	186675.2027	2985009.851	36227	0	0.5	--	6.5	J	1998–2002 EPA Supplemental Investigation
H3-FL000380-0-0000	FL000380	186716.5504	2985010.134	36227	0	0.5	--	6.04	J	1998–2002 EPA Supplemental Investigation
H3-FL000445-0-0000	FL000445	186412.4083	2985500.323	36229	0	0.5	--	10.8	J	1998–2002 EPA Supplemental Investigation
H3-FL000446-0-0000	FL000446	186454.8401	2985519.498	36229	0	0.5	--	5	--	1998–2002 EPA Supplemental Investigation
H3-FL000447-0-0000	FL000447	186549.2813	2985218.351	36229	0	0.5	--	3.67	J	1998–2002 EPA Supplemental Investigation
H3-FL000448-0-0000	FL000448	186599.3029	2985218.126	36229	0	0.5	--	2.68	J	1998–2002 EPA Supplemental Investigation
H3-FL000449-0-0000	FL000449	186366.0142	2985321.543	36229	0	0.5	--	2.79	J	1998–2002 EPA Supplemental Investigation
H3-FL000450-0-0000	FL000450	183348.6813	2987320.735	36230	0	0.5	--	0.56	UJ	1998–2002 EPA Supplemental Investigation
H3-FL000457-0-0000	FL000457	183278.8388	2987414.849	36230	0	0.5	--	1.66	J	1998–2002 EPA Supplemental Investigation
H3-FL000458-0-0000	FL000458	183243.9053	2987444.369	36230	0	0.5	--	0.251	UJ	1998–2002 EPA Supplemental Investigation
H3-FL000459-0-0000	FL000459	183222.5513	2987426.168	36230	0	0.5	--	1.58	J	1998–2002 EPA Supplemental Investigation
H3-FL000460-0-0000	FL000460	183122.0159	2987489.607	36230	0	0.5	--	0.4	J	1998–2002 EPA Supplemental Investigation
H3-FL000461-0-0000	FL000461	183026.7156	2987474.53	36230	0	0.5	--	0.619	J	1998–2002 EPA Supplemental Investigation

Table A-1
Polychlorinated Biphenyl Concentrations in Vernal Pools

Sample ID	Location ID	X Coordinate	Y Coordinate	Collection Date	Start Depth (feet)	End Depth (feet)	Sample Type	Total PCBs (mg/kg)	Qualifier	Sampling Program
H3-FL000600-0-0000	FL000600	184606.0498	2986646.443	36270	0	0.5	--	95.2	J	1998–2002 EPA Supplemental Investigation
H3-FL000601-0-0000	FL000601	184580.73	2986646.443	36270	0	0.5	--	72.5	--	1998–2002 EPA Supplemental Investigation
H3-FL000602-0-0000	FL000602	184559.6301	2986663.323	36270	0	0.5	--	78.5	--	1998–2002 EPA Supplemental Investigation
H3-FL000953-0-0000	FL000953	184673.1677	2986697.102	36467	0	0.5	--	49.2	--	1998–2002 EPA Supplemental Investigation
H3-FL000954-0-0000	FL000954	184586.2662	2986730.541	36467	0	0.5	--	22.4	--	1998–2002 EPA Supplemental Investigation
H3-FL000962-0-0000	FL000962	186716.8109	2984998.654	36468	0	0.5	--	40.6	--	1998–2002 EPA Supplemental Investigation
H3-FL001021-0-0000	FL001021	185896.1905	2981017.635	36472	0	0.5	--	30.2	--	1998–2002 EPA Supplemental Investigation
H3-FL001045-0-0000	FL001045	187542.1982	2979396.984	36474	0	0.5	--	9.38	--	1998–2002 EPA Supplemental Investigation
H3-FL001285-0-0000	FL001285	186594.603	2985775.576	36556	0	0.5	--	9.39	--	1998–2002 EPA Supplemental Investigation
H3-FL001304-0-0000	FL001304	185895.2031	2980736.424	36557	0	0.5	--	18.9	--	1998–2002 EPA Supplemental Investigation
H3-FL001320-0-0000	FL001320	188051.9696	2978656.359	36558	0	0.5	--	0.51	U	1998–2002 EPA Supplemental Investigation
H3-FL001321-0-0000	FL001321	188036.891	2978482.388	36558	0	0.5	--	2.36	J	1998–2002 EPA Supplemental Investigation
H3-FL001322-0-0000	FL001322	187838.1133	2978477.286	36558	0	0.5	--	20.3	--	1998–2002 EPA Supplemental Investigation
H3-FL001571-0-0000	FL001571	188161.9596	2978233.709	36739	0	0.5	--	0.428	J	1998–2002 EPA Supplemental Investigation
H3-FL001998-0-0000	FL001998	184611.5218	2986671.298	37272	0	0.5	--	5.3235	--	1998–2002 EPA Supplemental Investigation
H3-FL002014-0-0000	FL002014	184704.5295	2986395.244	37322	0	0.5	--	28	--	1998–2002 EPA Supplemental Investigation
H3-FL002017-0-0000	FL002017	186948.9569	2980267.008	37343	0	0.5	--	0.03551	--	1998–2002 EPA Supplemental Investigation
H3-FL002018-0-0000	FL002018	187036.9487	2980163.241	37343	0	0.5	--	0.01583	--	1998–2002 EPA Supplemental Investigation
H3-SE000921-0-0000	SE000921	184730.7816	2986357.621	36446	0	0.5	--	51.8	--	1998–2002 EPA Supplemental Investigation
H3-SE000923-0-0000	SE000923	185081.042	2986511.267	36446	0	0.5	--	14.1	--	1998–2002 EPA Supplemental Investigation
H3-SE001246-0-0000	SE001246	184581.619	2986679.164	36615	0	0.17	--	37	--	1998–2002 EPA Supplemental Investigation
H3-SE001246-0-0000	SE001246	184581.619	2986679.164	36615	0	0.17	--	9.4598	--	1998–2002 EPA Supplemental Investigation
H3-SE001249-0-0000	SE001249	186665.2763	2985046.72	36615	0	0.17	--	4.3	J	1998–2002 EPA Supplemental Investigation
H3-SE001249-0-0000	SE001249	186665.2763	2985046.72	36615	0	0.17	--	2.4513	--	1998–2002 EPA Supplemental Investigation
H3-SE001254-0-0000	SE001254	186453.5641	2985475.788	36620	0	0.17	--	5.2	--	1998–2002 EPA Supplemental Investigation
H3-SE001254-0-0000	SE001254	186453.5641	2985475.788	36620	0	0.17	--	5.4774	--	1998–2002 EPA Supplemental Investigation
H3-SE001276-0-0000	SE001276	186453.5641	2985475.788	36665	0	0.17	--	6.9	J	1998–2002 EPA Supplemental Investigation
H3-SE001256-0-0000	SE001256	187035.4855	2980199.519	36621	0	0.17	--	0.12	J	1998–2002 EPA Supplemental Investigation
H3-SE001256-0-0000	SE001256	187035.4855	2980199.519	36621	0	0.17	--	0.3904	--	1998–2002 EPA Supplemental Investigation
H3-SE001275-0-0000	SE001275	187035.4855	2980199.519	36664	0	0.17	--	0.098	J	1998–2002 EPA Supplemental Investigation
H3-SE001258-0-0000	SE001258	186945.0986	2980289.906	36621	0	0.17	--	0.12	J	1998–2002 EPA Supplemental Investigation
H3-SE001258-0-0000	SE001258	186945.0986	2980289.906	36621	0	0.17	--	0.564	--	1998–2002 EPA Supplemental Investigation
H3-SE001274-0-0000	SE001274	186945.0986	2980289.906	36664	0	0.17	--	0.25	J	1998–2002 EPA Supplemental Investigation
H3-SE001274-1-0000	SE001274	186945.0986	2980289.906	36664	0	0.17	FD	0.38	J	1998–2002 EPA Supplemental Investigation
082598BT10	SL0271	183105.8027	2988038.764	36032	0	0.5	--	2.84	--	1998–2002 EPA Supplemental Investigation
082698BT02	SL0274	187122.2231	2983727.277	36033	0	0.5	--	4.01	--	1998–2002 EPA Supplemental Investigation
082698BT04	SL0276	187004.6963	2983682.633	36033	0	0.5	--	4.74	--	1998–2002 EPA Supplemental Investigation
082798BT10	SL0299	186210.2527	2980639.241	36034	0	0.5	--	2	--	1998–2002 EPA Supplemental Investigation
FP2R-11	FP2R-11	184482.5399	2987418.976	33800	0	0.5	--	4.6	--	1990–1992 Massachusetts Contingency Plan Phase II Investigation

Table A-1
Polychlorinated Biphenyl Concentrations in Vernal Pools

Sample ID	Location ID	X Coordinate	Y Coordinate	Collection Date	Start Depth (feet)	End Depth (feet)	Sample Type	Total PCBs (mg/kg)	Qualifier	Sampling Program
FP2R-7	FP2R-7	183965.578	2987665.654	33220	0	0.5	--	58	--	1990–1992 Massachusetts Contingency Plan Phase II Investigation
H2-F0389408-0-0005	F0389408	183043.0517	2988185.502	36108	0.5	1	--	0.858	J	1998–2002 EPA Supplemental Investigation
H3-F0489811-0-0005	F0489811	187709.1598	2979891.987	36123	0.5	1	--	4.09	J	1998–2002 EPA Supplemental Investigation
H3-F0489816-0-0005	F0489816	187941.8654	2979808.378	36123	0.5	1	--	21.4	J	1998–2002 EPA Supplemental Investigation
H3-FL001285-0-0005	FL001285	186594.603	2985775.576	36556	0.5	1	--	0.74	J	1998–2002 EPA Supplemental Investigation
H3-FL001320-0-0005	FL001320	188051.9696	2978656.359	36558	0.5	1	--	0.504	U	1998–2002 EPA Supplemental Investigation
H3-FL001321-0-0005	FL001321	188036.891	2978482.388	36558	0.5	1	--	2.28	--	1998–2002 EPA Supplemental Investigation
H3-FL001571-0-0005	FL001571	188161.9596	2978233.709	36739	0.5	1	--	0.501	U	1998–2002 EPA Supplemental Investigation
FP2R-11	FP2R-11	184482.5399	2987418.976	33800	0.5	1	--	0.63	--	1990–1992 Massachusetts Contingency Plan Phase II Investigation
FP2R-7	FP2R-7	183965.578	2987665.654	33220	0.5	1	--	14	--	1990–1992 Massachusetts Contingency Plan Phase II Investigation
VP10-S-19/20 (0.5'-1.0')	VP10-S-19/20	184806.9509	2986901.483	44720.5868	0.5	1	--	1.62	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP10-T/U-18 (0.5'-1.0')	VP10-T/U-18	184742.4553	2986827.465	44720.5903	0.5	1	--	4.52	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP10-T/U-20 (0.5'-1.0')	VP10-T/U-20	184836.9879	2986825.502	44720.6035	0.5	1	--	0.035	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP10-T-20 (0.5'-1.0')	VP10-T-20	184827.9397	2986866.375	44720.6306	0.5	1	--	5.98	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP10-U-19 (0.5'-1.0')	VP10-U-19	184794.1858	2986813.54	44720.5972	0.5	1	--	17.8	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP12-B/C-1/2 (0.5'-1.0')	VP12-B/C-1/2	184657.3622	2986368.054	44726.6361	0.5	1	--	26.6	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP12-B/C-4 (0.5'-0.8')	VP12-B/C-4	184783.1392	2986367.784	44726.6201	0.5	0.8	--	39.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP12-B-2/3 (0.5'-1.0')	VP12-B-2/3	184694.9012	2986391.617	44726.6292	0.5	1	--	35.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP12-C/D-4 (0.5'-1.0')	VP12-C/D-4	184787.8361	2986331.325	44726.6083	0.5	1	--	34.7	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP12-C-3 (0.5'-1.0')	VP12-C-3	184730.8201	2986357.569	44726.625	0.5	1	--	12.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP13-G/H-3 (0.5'-1.0')	VP13-G/H-3	185031.2414	2986519.79	44721.5264	0.5	1	--	4.62	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP13-H-2 (0.5'-1.0')	VP13-H-2	184985.8698	2986509.613	44721.5201	0.5	1	--	19.6	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP13-H-4 (0.5'-1.0')	VP13-H-4	185079.9933	2986511.186	44721.5417	0.5	1	--	9.95	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP14-I/J-12/13 (0.5'-1.0')	VP14-I/J-12/13	185495.3596	2986430.838	44722.4632	0.5	1	--	20.7	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP14-I/J-13 (0.5'-1.0')	VP14-I/J-13	185516.1109	2986426.229	44722.4604	0.5	1	--	10.1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP14-J-12 (0.5'-1.0')	VP14-J-12	185479.4374	2986418.48	44722.4688	0.5	1	--	6.99	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP15A-I/J-17/18 (0.5'-0.9')	VP15A-I/J-17/18	185749.7715	2986433.676	44725.6243	0.5	0.89	--	3.99	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP15A-I-17/18 (0.5'-1.0')	VP15A-I-17/18	185768.1389	2986444.747	44725.6306	0.5	1	--	11.8	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP15A-I-18 (0.5'-1.0')	VP15A-I-18	185779.1769	2986464.156	44722.5076	0.5	1	--	39.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP15-G/H-9 (0.5'-0.9')	VP15-G/H-9	185327.9977	2986530.572	44721.6313	0.5	0.89	--	8.35	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP15-G-10 (0.5'-1.0')	VP15-G-10	185375.0718	2986535.321	44727.3646	0.5	1	--	27.5	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP15-G-11 (0.5'-0.9')	VP15-G-11	185427.4788	2986541.512	44722.409	0.5	0.89	--	33	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP15-G-12 (0.5'-1.0')	VP15-G-12	185476.0525	2986555.987	44722.4361	0.5	1	--	9.37	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220610-1	VP15-G-12	185476.0525	2986555.987	44722	0.5	1	FD	9.8	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP15-G-13 (0.5'-1.0')	VP15-G-13	185531.4822	2986539.285	44722.4521	0.5	1	--	24.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP15-H-12 (0.5'-1.0')	VP15-H-12	185490.8475	2986519.918	44722.4542	0.5	1	--	66.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP15-H-14 (0.5'-1.0')	VP15-H-14	185577.5684	2986510.166	44722.4736	0.5	1	--	36.5	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP15-I-15 (0.5'-1.0')	VP15-I-15	185602.2478	2986468.471	44722.4778	0.5	1	--	32.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP16-F/G-17 (0.5'-1.0')	VP16-F/G-17	185726.8424	2986576.626	44725.6604	0.5	1	--	1.73	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)

Table A-1
Polychlorinated Biphenyl Concentrations in Vernal Pools

Sample ID	Location ID	X Coordinate	Y Coordinate	Collection Date	Start Depth (feet)	End Depth (feet)	Sample Type	Total PCBs (mg/kg)	Qualifier	Sampling Program
VP16-F-17/18 (0.5'-1.0')	VP16-F-17/18	185750.4404	2986581.149	44725.6438	0.5	1	--	0.932	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP16-G-17 (0.5'-1.0')	VP16-G-17	185718.303	2986558.995	44725.6688	0.5	1	--	0.533	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP18A-G-21 (0.5'-1.0')	VP18A-G-21	185913.6813	2986543.02	44725.5868	0.5	1	--	31.5	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP18A-G-21/22 (0.5'-1.0')	VP18A-G-21/22	185957.1113	2986552.601	44722.5285	0.5	1	--	46.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP18A-G-22/23 (0.5'-1.0')	VP18A-G-22/23	186000.0456	2986559.842	44725.6007	0.5	1	--	17.8	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP18-B-22 (0.5'-0.9')	VP18-B-22	185985.457	2986786.062	44725.5194	0.5	0.89	--	0.047	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP18-C-21/22 (0.5'-0.8')	VP18-C-21/22	185953.4443	2986761.053	44725.5285	0.5	0.8	--	0.56		2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP18-C-22 (0.5'-1.0')	VP18-C-22	185992.1135	2986745.906	44725.5153	0.5	1	--	1.32	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220613-1	VP18-C-22	185992.1135	2986745.906	44725	0.5	1	FD	0.4	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP18-D-22 (0.5'-0.8')	VP18-D-22	185972.7218	2986716.409	44725.5556	0.5	0.8	--	0.038	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP18-D-23 (0.5'-1.0')	VP18-D-23	186024.7132	2986710.509	44725.541	0.5	1	--	1.75	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP19-B/C-4 (0.5'-1.0')	VP19-B/C-4	187232.0372	2986328.124	44728.3875	0.5	1	--	0.117	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP19-B-2/3 (0.5'-1.0')	VP19-B-2/3	187157.2234	2986335.82	44728.4069	0.5	1	--	1.56	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220616-1	VP19-B-2/3	187157.2234	2986335.82	44728	0.5	1	FD	2.12	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP19-C-3 (0.5'-1.0')	VP19-C-3	187191.6141	2986304.255	44728.3965	0.5	1	--	3.96	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1A-B-5/6 (0.5'-1.0')	VP1A-B-5/6	183005.0644	2988219.51	44706.4201	0.5	1	--	0.239	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1A-B-6/7 (0.5'-1.0')	VP1A-B-6/7	183053.8208	2988217.03	44706.4188	0.5	1	--	0.523	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1A-C-7 (0.5'-1.0')	VP1A-C-7	183079.9369	2988156.516	44706.4236	0.5	1	--	0.0644	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1B-E-7 (0.5'-1.0')	VP1B-E-7	183072.2952	2988057.938	44706.3854	0.5	1	--	0.182	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1B-E-7/8 (0.5'-1.0')	VP1B-E-7/8	183105.7151	2988038.823	44706.3903	0.5	1	--	0.568	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1B-F-7 (0.5'-1.0')	VP1B-F-7	183076.2854	2988019.833	44706.4111	0.5	1	--	0.193	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1B-F-7/8 (0.5'-1.0')	VP1B-F-7/8	183102.8798	2987989.658	44706.3931	0.5	1	--	0.954	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1-I/J-2 (0.5'-1.0')	VP1-I/J-2	182813.508	2987821.521	44706.3993	0.5	1	--	0.0566	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220525-2	VP1-I/J-2	182813.508	2987821.521	44706	0.5	1	FD	0.053	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1-J/K-3 (0.5'-1.0')	VP1-J/K-3	182860.4233	2987786.096	44706.4868	0.5	1	--	0.0538	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1-K/L-4 (0.5'-1.0')	VP1-K/L-4	182914.2768	2987726.872	44707.3632	0.5	1	--	0.106	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1-L/M-4/5 (0.5'-1.0')	VP1-L/M-4/5	182948.6741	2987674.015	44707.3542	0.5	1	--	0.828	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1-N-5 (0.5'-1.0')	VP1-N-5	182974.423	2987608.418	44707.3688	0.5	1	--	1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1-O-5 (0.5'-1.0')	VP1-O-5	182979.567	2987543.193	44707.3813	0.5	1	--	0.145	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1-P/Q-6 (0.5'-1.0')	VP1-P/Q-6	183026.7874	2987474.514	44707.3882	0.5	1	--	0.31	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1-Q/R-10 (0.5'-1.0')	VP1-Q/R-10	183222.5889	2987426.207	44708.3507	0.5	1	--	0.019	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1-Q-7 (0.5'-1.0')	VP1-Q-7	183089.6305	2987462.73	44707.3951	0.5	1	--	10.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1-Q-9 (0.5'-1.0')	VP1-Q-9	183163.005	2987457.574	44707.4222	0.5	1	--	49.1	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220526-1	VP1-Q-9	183163.005	2987457.574	44707	0.5	1	FD	25.9	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1-R/S-11/12 (0.5'-1.0')	VP1-R/S-11/12	183298.6599	2987378.147	44707.4167	0.5	1	--	1.93	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP1-S/T-12/13 (0.5'-1.0')	VP1-S/T-12/13	183348.7002	2987320.735	44707.4694	0.5	1	--	26.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP20-B-2 (0.5'-1.0')	VP20-B-2	186543.012	2985789.129	44741.6229	0.5	1	--	0.381	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP20-B-3/4 (0.5'-1.0')	VP20-B-3/4	186601.3403	2985813.355	44741.6194	0.5	1	--	1.13	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220629-3	VP20-B-3/4	186601.3403	2985813.355	44741	0.5	1	FD	1.08	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)

Table A-1
Polychlorinated Biphenyl Concentrations in Vernal Pools

Sample ID	Location ID	X Coordinate	Y Coordinate	Collection Date	Start Depth (feet)	End Depth (feet)	Sample Type	Total PCBs (mg/kg)	Qualifier	Sampling Program
VP20-C-2/3 (0.5'-1.0')	VP20-C-2/3	186554.7558	2985733.008	44741.6069	0.5	1	--	0.0516	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP20-C-3/4 (0.5'-1.0')	VP20-C-3/4	186601.717	2985748.469	44741.6146	0.5	1	--	0.608	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP20-C-4 (0.5'-1.0')	VP20-C-4	186646.4295	2985766.457	44768.3715	0.5	1	--	5.82	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP20-D-4 (0.5'-1.0')	VP20-D-4	186618.8901	2985709.649	44768.3771	0.5	1	--	1.64	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-A/B-4/5(0.5'-1.0')	VP21-A/B-4/5	186354.8605	2985623.472	44748.366	0.5	1	--	2.02	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-B/C-3/4(0.5'-1.0')	VP21-B/C-3/4	186309.2769	2985571.702	44748.3778	0.5	1	--	0.435	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-B/C-4/5(0.5'-1.0')	VP21-B/C-4/5	186354.2483	2985576.923	44748.3708	0.5	1	--	0.275	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-C/D-2/3(0.5'-1.0')	VP21-C/D-2/3	186265.5749	2985522.5	44748.4111	0.5	1	--	0.055	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-C/D-3(0.5'-1.0')	VP21-C/D-3	186297.0237	2985530.894	44748.3924	0.5	1	--	0.078	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-C/D-6/7(0.5'-1.0')	VP21-C/D-6/7	186454.6972	2985519.546	44748.4243	0.5	1	--	0.245	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-C-4/5(0.5'-1.0')	VP21-C-4/5	186348.5938	2985537.36	44747.7104	0.5	1	--	2.23	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-C-5/6(0.5'-1.0')	VP21-C-5/6	186401.407	2985559.679	44748.4174	0.5	1	--	0.499	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-D/E-2(0.5'-1.0')	VP21-D/E-2	186236.1455	2985478.675	44747.5208	0.5	1	--	0.524	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-D/E-3(0.5'-1.0')	VP21-D/E-3	186283.0047	2985479.182	44747.5278	0.5	1	--	0.14	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-D/E-6/7(0.5'-1.0')	VP21-D/E-6/7	186453.505	2985475.909	44748.4319	0.5	1	--	0.058	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-D-1/2(0.5'-1.0')	VP21-D-1/2	186212.5091	2985513.942	44747.4931	0.5	1	--	0.0745	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-D-5/6(0.5'-1.0')	VP21-D-5/6	186412.3345	2985500.324	44748.4278	0.5	1	--	0.189	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-E/F-6(0.5'-1.0')	VP21-E/F-6	186437.7534	2985427.88	44748.4764	0.5	1	--	2.66	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-E/F-7(0.5'-1.0')	VP21-E/F-7	186490.5252	2985425.301	44748.4486	0.5	1	--	1.98	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-E-2/3(0.5'-1.0')	VP21-E-2/3	186262.1533	2985441.664	44747.5417	0.5	1	--	0.0808	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-E-3/4(0.5'-1.0')	VP21-E-3/4	186305.8402	2985432.981	44747.5604	0.5	1	--	0.423	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-F/G-3/4(0.5'-1.0')	VP21-F/G-3/4	186310.2582	2985381.736	44747.5618	0.5	1	--	1.42	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-F/G-7(0.5'-1.0')	VP21-F/G-7	186489.3901	2985382.225	44748.484	0.5	1	--	0.0577	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-G/H-5(0.5'-1.0')	VP21-G/H-5	186366.1879	2985321.773	44747.6042	0.5	1	--	0.948	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220705-1	VP21-G/H-5	186366.1879	2985321.773	44747	0.5	1	FD	1.08	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-G/H-8(0.5'-1.0')	VP21-G/H-8	186543.2925	2985321.848	44748.5063	0.5	1	--	1.57	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-G-4/5(0.5'-1.0')	VP21-G-4/5	186357.5327	2985350.069	44747.5951	0.5	1	--	7.79	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-G-7/8(0.5'-1.0')	VP21-G-7/8	186501.5157	2985335.053	44748.5	0.5	1	--	5.56	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-H/I-5/6(0.5'-1.0')	VP21-H/I-5/6	186402.5917	2985277.176	44747.6118	0.5	1	--	5.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220705-2	VP21-H/I-5/6	186402.5917	2985277.176	44747	0.5	1	FD	6.38	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-H/I-8(0.5'-1.0')	VP21-H/I-8	186547.7167	2985275.833	44748.5083	0.5	1	--	0.324	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220706-3	VP21-H/I-8	186547.7167	2985275.833	44748	0.5	1	FD	0.277	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-I/J-7/8(0.5'-1.0')	VP21-I/J-7/8	186502.4238	2985218.672	44748.5771	0.5	1	--	0.594	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-I/J-8(0.5'-1.0')	VP21-I/J-8	186549.1692	2985218.258	44748.559	0.5	1	--	1.48	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-I/J-9(0.5'-1.0')	VP21-I/J-9	186599.2852	2985218.184	44748.5549	0.5	1	--	0.227	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-I-6(0.5'-1.0')	VP21-I-6	186448.6375	2985245.4	44747.6271	0.5	1	--	1.53	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-J/K-8(0.5'-1.0')	VP21-J/K-8	186513.7394	2985181.241	44748.5694	0.5	1	--	0.455	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-J/K-9(0.5'-1.0')	VP21-J/K-9	186597.6763	2985179.198	44748.5507	0.5	1	--	2.61	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP21-J-8 (0.5'-1.0')	VP21-J-8	186545.6426	2985191.41	44748.5618	0.5	1	--	0.97	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)

Table A-1
Polychlorinated Biphenyl Concentrations in Vernal Pools

Sample ID	Location ID	X Coordinate	Y Coordinate	Collection Date	Start Depth (feet)	End Depth (feet)	Sample Type	Total PCBs (mg/kg)	Qualifier	Sampling Program
VP22-B-4/5 (0.5'-1.0')	VP22-B-4/5	186809.0486	2985313.217	44768.3938	0.5	1	--	0.646	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP22-C-4(0.5'-1.0')	VP22-C-4	186769.3344	2985250.941	44749.4931	0.5	1	--	0.543	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP22-D-3(0.5'-1.0')	VP22-D-3	186746.3951	2985183.033	44749.4896	0.5	1	--	3.61	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP22-E-2(0.5'-1.0')	VP22-E-2	186696.0006	2985114.261	44749.4861	0.5	1	--	3.88	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP22-F/G-2/3(0.5'-1.0')	VP22-F/G-2/3	186698.4796	2985065.224	44749.4826	0.5	1	--	4.56	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP22-F/G-3/4 (0.5'-1.0')	VP22-F/G-3/4	186740.4732	2985086.32	44749.5035	0.5	1	--	7.35	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP22-H-2(0.5'-1.0')	VP22-H-2	186675.265	2985009.891	44749.4792	0.5	1	--	2.13	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP22-H-3/4(0.5'-1.0')	VP22-H-3/4	186749.672	2984991.712	44749.5139	0.5	1	--	5.6	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP22-I-3(0.5'-1.0')	VP22-I-3	186719.8686	2984947.006	44749.4736	0.5	1	--	4.02	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220707-1	VP22-I-3	186719.8686	2984947.006	44749	0.5	1	FD	4.71	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24B-AA-36 (0.5'-0.8')	VP24B-AA-36	188814.7703	2985109.813	44739.6431	0.5	0.8	--	0.14	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24B-AA-37 (0.5'-1.0')	VP24B-AA-37	188889.8413	2985095.065	44739.6729	0.5	1	--	0.046	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24B-AB-35/36 (0.5'-0.8')	VP24B-AB-35/36	188808.9793	2985062.518	44739.6479	0.5	0.8	--	0.07	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24B-AB-37 (0.5'-1.0')	VP24B-AB-37	188871.155	2985035.561	44739.6611	0.5	1	--	0.0859	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220627-1	VP24B-AB-37	188871.155	2985035.561	44739	0.5	1	FD	0.14	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24B-AC-36 (0.5'-0.8')	VP24B-AC-36	188821.85	2985012.206	44739.6542	0.5	0.8	--	0.046	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24B-AD-36 (0.5'-1.0')	VP24B-AD-36	188820.4094	2984942.038	44739.6889	0.5	1	--	0.072	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24B-AE-35 (0.5'-1.0')	VP24B-AE-35	188776.5607	2984893.834	44739.6944	0.5	1	--	0.044	UJ	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24B-AF-34/35 (0.5'-1.0')	VP24B-AF-34/35	188757.5437	2984842.479	44739.5326	0.5	1	--	0.046	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24B-AG-34/35 (0.5'-1.0')	VP24B-AG-34/35	188762.541	2984788.212	44739.5243	0.5	1	--	0.045	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24B-Z-36/37 (0.5'-1.0')	VP24B-Z-36/37	188854.2321	2985144.362	44739.6361	0.5	1	--	0.18	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24B-Z-37/38 (0.5'-1.0')	VP24B-Z-37/38	188901.2274	2985135.756	44739.6806	0.5	1	--	0.071	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24-X/Y-32 (0.5'-1.0')	VP24-X/Y-32	188611.582	2985224.189	44735.5688	0.5	1	--	0.057	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24-Y-30 (0.5'-1.0')	VP24-Y-30	188539.6196	2985194.218	44735.5771	0.5	1	--	0.0594	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP24-Y-31 (0.5'-1.0')	VP24-Y-31	188578.3911	2985206.61	44735.5826	0.5	1	--	0.0483	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP26-B/C-1/2 (0.5'-1.0')	VP26-B/C-1/2	186510.7398	2984531.154	44742.3681	0.5	1	--	0.51	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP26-B/C-3 (0.5'-1.0')	VP26-B/C-3	186586.7767	2984517.282	44742.3819	0.5	1	--	4.34	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP26-B-2/3 (0.5'-1.0')	VP26-B-2/3	186555.6764	2984542.957	44742.375	0.5	1	--	0.511	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP27-E/F-6 (0.5'-1.0')	VP27-E/F-6	186728.0553	2984375.086	44742.4028	0.5	1	--	2.28	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP27-F-4 (0.5'-1.0')	VP27-F-4	186629.4492	2984350.181	44742.3889	0.5	1	--	2.29	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP27-F-5 (0.5'-1.0')	VP27-F-5	186680.3221	2984362.928	44742.4097	0.5	1	--	1.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP28A-B-2(0.5'-1.0')	VP28A-B-2	187126.0886	2984086.907	44743.3924	0.5	1	--	87.2	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP28A-C/D-2(0.5'-1.0')	VP28A-C/D-2	187128.7487	2984024.972	44743.4097	0.5	1	--	20.7	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP28A-C-2 (0.5'-1.0')	VP28A-C-2	187125.127	2984055.514	44743.3611	0.5	1	--	6.74	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP2-T/U-11 (0.5'-1.0')	VP2-T/U-11	183291.1648	2987269.923	44708.3653	0.5	1	--	2.73	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP2-U/V-10/11 (0.5'-0.9')	VP2-U/V-10/11	183256.1059	2987221.413	44708.3722	0.5	0.89	--	0.356	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP2-U/V-11/12 (0.5'-1.0')	VP2-U/V-11/12	183302.5329	2987227.207	44708.3667	0.5	1	--	7.42	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220527-1	VP2-U/V-11/12	183302.5329	2987227.207	44708	0.5	1	FD	7.52	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP2-V/W-10/11 (0.5'-1.0')	VP2-V/W-10/11	183255.3421	2987180.551	44708.3764	0.5	1	--	0.082	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)

Table A-1
Polychlorinated Biphenyl Concentrations in Vernal Pools

Sample ID	Location ID	X Coordinate	Y Coordinate	Collection Date	Start Depth (feet)	End Depth (feet)	Sample Type	Total PCBs (mg/kg)	Qualifier	Sampling Program
VP2-V/W-11/12 (0.5'-1.0')	VP2-V/W-11/12	183299.7849	2987185.915	44707.4799	0.5	1	--	0.718	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP32-D/E-4/5(0.5'-1.0')	VP32-D/E-4/5	186914.1487	2983619.902	44755.4333	0.5	1	--	46	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP32-E/F-4/5 (0.5'-1.0')	VP32-E/F-4/5	186915.9151	2983577.809	44754.6097	0.5	1	--	21.6	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP32-E-4/5(0.5'-1.0')	VP32-E-4/5	186903.676	2983591.604	44755.4729	0.5	1	--	58	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP32-F-5(0.5'-1.0')	VP32-F-5	186938.4322	2983562.785	44754.6	0.5	1	--	84.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP33-A/B-8/9 (0.5'-1.0')	VP33-A/B-8/9	187101.1608	2983766.913	44754.5292	0.5	1	--	41.8	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP33-B/C-7/8(0.5'-0.9')	VP33-B/C-7/8	187049.0199	2983724.905	44754.5514	0.5	0.89	--	36.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP33-B/C-9(0.5'-1.0')	VP33-B/C-9	187122.1142	2983727.017	44754.5264	0.5	1	--	56.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP33-C/D-6/7(0.5'-1.0')	VP33-C/D-6/7	187004.517	2983682.532	44754.559	0.5	1	--	41.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP33-C/D-7/8(0.5'-1.0')	VP33-C/D-7/8	187056.4513	2983683.727	44754.5556	0.5	1	--	43.2	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP33-D/E-8/9(0.5'-1.0')	VP33-D/E-8/9	187102.5463	2983622.034	44754.5681	0.5	1	--	45.2	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP33-D-7/8(0.5'-1.0')	VP33-D-7/8	187059.908	2983644.935	44754.5653	0.5	1	--	70.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP33-D-9(0.5'-0.9')	VP33-D-9	187119.5246	2983662.147	44754.5215	0.5	0.89	--	120	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP35-H-8/9(0.5'-1.0')	VP35-H-8/9	187106.5211	2983446.437	44755.4806	0.5	1	--	71.7	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220713-2	VP35-H-8/9	187106.5211	2983446.437	44755	0.5	1	FD	69.1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP35-I-8(0.5'-1.5')	VP35-I-8	187079.4306	2983403.98	44755.4833	0.5	1.5	--	77.7	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP35-I-9(0.5'-1.0')	VP35-I-9	187140.7552	2983399.947	44755.4868	0.5	1	--	92.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP35-J-9/10(0.5'-1.0')	VP35-J-9/10	187157.249	2983344.831	44755.5146	0.5	1	--	133	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP35-K-10/11(0.5'-1.0')	VP35-K-10/11	187199.8549	2983303.212	44755.5208	0.5	1	--	50.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP36-L-3(0.5'-1.0')	VP36-L-3	186828.3441	2983241.349	44755.6111	0.5	1	--	19	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP36-L-4(0.5'-1.0')	VP36-L-4	186880.6754	2983245.363	44755.5917	0.5	1	--	42.6	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP36-M-2(0.5'-1.0')	VP36-M-2	186786.3547	2983188.287	44755.6153	0.5	1	--	7.61	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP36-M-3(0.5'-1.0')	VP36-M-3	186831.8933	2983190.53	44755.6035	0.5	1	--	4.15	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP36-M-4(0.5'-1.0')	VP36-M-4	186879.1511	2983200.861	44755.5979	0.5	1	--	6.62	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP36-N-2/3(0.5'-1.0')	VP36-N-2/3	186812.0305	2983154.273	44755.6181	0.5	1	--	15.1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP3-B-4 (0.5'-0.9')	VP3-B-4	184036.9813	2987734.643	44719.5715	0.5	0.89	--	0.022	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP3-C/D-3/4 (0.5'-1.0')	VP3-C/D-3/4	184004.192	2987676.877	44715.334	0.5	1	--	2.22	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP3-C-2 (0.5'-1.0')	VP3-C-2	183930.1285	2987687.319	44715.3375	0.5	1	--	48.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220603-1	VP3-C-2	183930.1285	2987687.319	44715	0.5	1	FD	34	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP3-C-4/5 (0.5'-1.0')	VP3-C-4/5	184054.0222	2987685.636	44719.5792	0.5	1	--	0.174	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP3-D/E-2/3 (0.5'-1.0')	VP3-D/E-2/3	183951.1898	2987629.494	44719.5882	0.5	1	--	15.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP3-D/E-3/4 (0.5'-1.0')	VP3-D/E-3/4	184001.9567	2987629.411	44719.5847	0.5	1	--	0.122	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP40-P/Q-6/7(0.5'-1.0')	VP40-P/Q-6/7	187010.5478	2983017.486	44756.5069	0.5	1	--	65.1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP40-P-7(0.5'-1.0')	VP40-P-7	187020.5334	2983037.907	44756.4028	0.5	1	--	85.1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP40-Q-6/7(0.5'-1.0')	VP40-Q-6/7	187003.6853	2982997.966	44756.3896	0.5	1	--	51.6	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP40-R/S-7(0.5'-1.0')	VP40-R/S-7	187016.0714	2982926.777	44756.384	0.5	1	--	50.2	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP40-R-6/7(0.5'-1.0')	VP40-R-6/7	187008.1902	2982963.018	44756.3861	0.5	1	--	80.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP42-R/S-10(0.5'-1.0')	VP42-R/S-10	187170.7129	2982919.078	44756.4868	0.5	1	--	52.5	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP42-R/S-10/11(0.5'-1.0')	VP42-R/S-10/11	187208.4543	2982933.302	44756.4924	0.5	1	--	70.1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)

Table A-1
Polychlorinated Biphenyl Concentrations in Vernal Pools

Sample ID	Location ID	X Coordinate	Y Coordinate	Collection Date	Start Depth (feet)	End Depth (feet)	Sample Type	Total PCBs (mg/kg)	Qualifier	Sampling Program
VP42-R-10(0.5'-1.0')	VP42-R-10	187180.6787	2982954.386	44756.4771	0.5	1	--	49.7	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP42-R-11(0.5'-1.0')	VP42-R-11	187236.9247	2982955.465	44756.4743	0.5	1	--	46.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP42-S/T-10(0.5'-1.0')	VP42-S/T-10	187173.8815	2982882.405	44756.491	0.5	1	--	12.2	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP49A-E/F-2 (0.5'-1.0')	VP49A-E/F-2	186394.8712	2981913.158	44701.3972	0.5	1	--	22.8	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP49A-F-2/3 (0-5'-1.0')	VP49A-F-2/3	186409.4204	2981901.792	44701.3993	0.5	1	--	3.95	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP49A-F-3 (0.5'-1.0')	VP49A-F-3	186420.5779	2981892.837	44700.541	0.5	1	--	2.51	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP4-D-8 (0.5'-1.0')	VP4-D-8	184225.2558	2987644.836	44715.3493	0.5	1	--	9.88	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP4-E-9 (0.5'-1.0')	VP4-E-9	184275.8151	2987600.76	44715.3514	0.5	1	--	14.5	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP4-F-9 (0.5'-1.0')	VP4-F-9	184268.4674	2987543.059	44719.6042	0.5	1	--	2.39	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP4-G-8 (0.5'-1.0')	VP4-G-8	184221.1187	2987493.785	44715.3556	0.5	1	--	0.677	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP50-B/C-3 (0.5'-1.0')	VP50-B/C-3	186426.9558	2982075.773	44701.4049	0.5	1	--	7.15	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP50-B-2/3 (0.5'-1.0')	VP50-B-2/3	186400.2945	2982082.476	44701.4111	0.5	1	--	5.05	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP50-C-2 (0.5'-1.0')	VP50-C-2	186386.2515	2982060.072	44704.6035	0.5	1	--	5.14	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP52-B-5/6 (0.5'-1.0')	VP52-B-5/6	185983.3091	2981461.303	44762.5153	0.5	1	--	70.2	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP52-B-6 (0.5'-1.0')	VP52-B-6	186000.3294	2981446.522	44762.5118	0.5	1	--	72.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP52-C-6 (0.5'-1.0')	VP52-C-6	186002.998	2981422.242	44762.5063	0.5	1	--	40.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP54-C/D-7 (0.5'-0.9')	VP54-C/D-7	186044.1856	2981385.661	44762.6056	0.5	0.89	--	45.6	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP54-D-6 (0.5'-1.0')	VP54-D-6	186010.1194	2981361.244	44762.6	0.5	1	--	52.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP54-D-7 (0.5'-1.0')	VP54-D-7	186047.9284	2981351.27	44762.6104	0.5	1	--	53.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP55-F/G-5 (0.5'-1.0')	VP55-F/G-5	185954.5444	2981239.835	44763.5292	0.5	1	--	38.7	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220721-3	VP55-F/G-5	185954.5444	2981239.835	44763	0.5	1	FD	39.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP55-F/G-6 (0.5'-1.0')	VP55-F/G-6	186004.9298	2981229.69	44763.5313	0.5	1	--	28.8	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP55-G-5 (0.5'-0.85')	VP55-G-5	185944.8315	2981201.545	44763.5278	0.5	0.85	--	20.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP55-G-6/7 (0.5'-0.9')	VP55-G-6/7	186030.5376	2981200.181	44763.5368	0.5	0.89	--	23.8	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220721-2	VP55-G-6/7	186030.5376	2981200.181	44763	0.5	0.89	FD	25.8	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP55-H-6 (0.5'-1.0')	VP55-H-6	185989.9167	2981174.408	44763.5333	0.5	1	--	21.6	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP57-H/I-5/6 (0.5'-0.85')	VP57-H/I-5/6	185969.7363	2981129.996	44763.55	0.5	0.85	--	36.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP57-J-4 (0.5'-1.0')	VP57-J-4	185905.3132	2981068.198	44763.5688	0.5	1	--	0.638	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP57-J-5 (0.5'-1.0')	VP57-J-5	185953.2461	2981067.576	44763.5528	0.5	1	--	5.74	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP57-K/L-4 (0.5'-0.85')	VP57-K/L-4	185915.3076	2980978.146	44763.5604	0.5	0.85	--	31.8	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP57-K-4/5 (0.5'-1.0')	VP57-K-4/5	185928.1081	2981021.442	44763.5556	0.5	1	--	72.5	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP57-L-3 (0.5'-0.85')	VP57-L-3	185865.873	2980950.387	44763.5632	0.5	0.85	--	22.2	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP57-M-4/5 (0.5'-0.9')	VP57-M-4/5	185920.1625	2980916.108	44763.5618	0.5	0.89	--	15.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP59A-P/Q-16 (0.5'-0.9')	VP59A-P/Q-16	187065.2564	2981364.14	44698.5903	0.5	0.88	--	20.9	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP59A-P-15/16 (0.5'-1.0')	VP59A-P-15/16	187051.555	2981387.246	44698.6319	0.5	1	--	2.33	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP59A-Q-15 (0.5'-1.0')	VP59A-Q-15	187040.3273	2981356.793	44698.6014	0.5	1	--	23	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP5-I/J-13 (0.5'-1.0')	VP5-I/J-13	184473.5585	2987377.522	44714.5708	0.5	1	--	1.71	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP5-I/J-14/15 (0.5'-1.0')	VP5-I/J-14/15	184552.0216	2987373.399	44714.5653	0.5	1	--	6.64	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP5-I-14 (0.5'-1.0')	VP5-I-14	184523.0977	2987404.968	44714.5556	0.5	1	--	1.83	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)

Table A-1
Polychlorinated Biphenyl Concentrations in Vernal Pools

Sample ID	Location ID	X Coordinate	Y Coordinate	Collection Date	Start Depth (feet)	End Depth (feet)	Sample Type	Total PCBs (mg/kg)	Qualifier	Sampling Program
VP5-I-15 (0.5'-1.0')	VP5-I-15	184566.4835	2987405.7	44714.5611	0.5	1	--	1.96	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP5-J-13/14 (0.5'-1.0')	VP5-J-13/14	184511.0335	2987351.412	44714.5729	0.5	1	--	1.15	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP60-B/C-16/17 (0.5'-1.0')	VP60-B/C-16/17	187582.7235	2981090.888	44777.4285	0.5	1	--	0.375	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP60-B-16 (0.5'-1.0')	VP60-B-16	187541.5802	2981115.242	44775.6368	0.5	1	--	0.432	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP60-B-16/17(0.5'-1.0')	VP60-B-16/17	187562.9408	2981100.369	44775.6347	0.5	1	--	0.716	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP60-C-17 (0.5'-1.0')	VP60-C-17	187612.9587	2981064.404	44777.4271	0.5	1	--	0.277	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP61-C-15 (0.5'-1.0')	VP61-C-15	187493.1909	2981063.402	44777.3569	0.5	1	--	0.0495	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP61-D/E-16 (0.5'-1.0')	VP61-D/E-16	187564.3958	2980985.969	44777.366	0.5	1	--	0.275	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP61-D-16 (0.5'-0.9')	VP61-D-16	187536.5359	2981013.508	44777.3583	0.5	0.89	--	0.142	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP61-E-16/17 (0.5'-1.0')	VP61-E-16/17	187578.1838	2980947.893	44777.3681	0.5	1	--	0.943	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP61-F-17/18 (0.5'-1.0')	VP61-F-17/18	187623.9518	2980896.853	44777.3715	0.5	1	--	0.662	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP62-E-14/15 (0.5'-1.0')	VP62-E-14/15	187479.6739	2980971.86	44777.3597	0.5	1	--	0.113	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP62-F-14 (0.5'-1.0')	VP62-F-14	187462.9921	2980921.573	44777.3611	0.5	1	--	0.581	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP62-F-15 (0.5'-1.0')	VP62-F-15	187498.1981	2980919.675	44777.3625	0.5	1	--	0.289	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP62-G-14 (0.5'-1.0')	VP62-G-14	187455.3229	2980865.577	44777.3764	0.5	1	--	0.0424	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP62-G-15 (0.5'-1.0')	VP62-G-15	187502.9924	2980865.882	44777.3736	0.5	1	--	0.382	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP63-J/K-17 (0.5'-1.0')	VP63-J/K-17	187604.1247	2980680.26	44777.3861	0.5	1	--	0.519	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP63-J-16 (0.5'-1.0')	VP63-J-16	187554.8774	2980691.335	44777.3799	0.5	1	--	0.295	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP63-J-16/17 (0.5'-1.0')	VP63-J-16/17	187577.6674	2980694.971	44777.3819	0.5	1	--	1.02	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-P/Q-4 (0.5'-0.9')	VP64-P/Q-4	185895.1918	2980736.416	44763.616	0.5	0.89	--	48.2	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-P-2 (0.5'-0.9')	VP64-P-2	185787.315	2980752.206	44763.6125	0.5	0.89	--	18.1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-Q/R-10 (0.5'-1.0')	VP64-Q/R-10	186203.8273	2980678.462	44763.6264	0.5	1	--	33.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-Q/R-5 (0.5'-1.0')	VP64-Q/R-5	185955.4036	2980683.456	44769.55	0.5	1	--	18.6	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-Q/R-9 (0.5'-1.0')	VP64-Q/R-9	186153.3077	2980688.858	44763.6264	0.5	1	--	59.5	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-Q-2/3 (0.5'-1.0')	VP64-Q-2/3	185831.6046	2980712.849	44763.6146	0.5	1	--	76.5	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-Q-4 (0.5'-1.0')	VP64-Q-4	185904.2731	2980696.098	44769.5479	0.5	1	--	62.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-Q-5 (0.5'-0.9')	VP64-Q-5	185954.066	2980720.329	44763.6215	0.5	0.89	--	45	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-Q-6 (0.5'-1.0')	VP64-Q-6	186006.3727	2980704.206	44763.6215	0.5	1	--	24	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-Q-7 (0.5'-0.95')	VP64-Q-7	186055.784	2980693.768	44763.6229	0.5	0.94	--	21.5	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-Q-8 (0.5'-0.90')	VP64-Q-8	186104.9141	2980695.312	44763.6243	0.5	0.89	--	42.8	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-R/S-10 (0.5'-1.0')	VP64-R/S-10	186210.2453	2980639.178	44769.5708	0.5	1	--	58.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-R/S-11 (0.5'-1.0')	VP64-R/S-11	186265.382	2980630.464	44769.5743	0.5	1	--	17.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-R-6 (0.5'-1.0')	VP64-R-6	186006.4343	2980658.279	44769.5535	0.5	1	--	29.8	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-R-7 (0.5'-1.0')	VP64-R-7	186056.2768	2980648.991	44769.5625	0.5	1	--	58.1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-R-8 (0.5'-1.0')	VP64-R-8	186105.6067	2980647.449	44769.5653	0.5	1	--	34.8	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP64-R-9 (0.5'-1.0')	VP64-R-9	186153.1726	2980644.269	44769.5681	0.5	1	--	47.2	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP65-S/T-9 (0.5'-0.9')	VP65-S/T-9	186138.1966	2980589.009	44770.3507	0.5	0.89	--	25.2	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP65-T/U-11 (0.5'-1.0')	VP65-T/U-11	186250.5287	2980542.207	44770.375	0.5	1	--	26.3	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP65-T-10 (0.5'-1.0')	VP65-T-10	186215.6121	2980559.786	44770.3646	0.5	1	--	21.8	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)

Table A-1
Polychlorinated Biphenyl Concentrations in Vernal Pools

Sample ID	Location ID	X Coordinate	Y Coordinate	Collection Date	Start Depth (feet)	End Depth (feet)	Sample Type	Total PCBs (mg/kg)	Qualifier	Sampling Program
VP65-T-9 (0.5'-1.0')	VP65-T-9	186170.6479	2980567.43	44770.3535	0.5	1	--	36.6	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP69-Q-5 (0.5'-1.0')	VP69-Q-5	187010.7647	2980361.453	44768.6132	0.5	1	--	0.0405	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP69-R/S-2/3 (0.5'-1.0')	VP69-R/S-2/3	186881.1944	2980285.787	44768.5833	0.5	1	--	0.0256	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP69-R/S-4 (0.5'-1.0')	VP69-R/S-4	186945.0545	2980289.915	44768.5979	0.5	1	--	0.039	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP69-R-4/5 (0.5'-1.0')	VP69-R-4/5	186986.6755	2980321.932	44768.609	0.5	1	--	0.036	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP69-S/T-2/3 (0.5'-1.0')	VP69-S/T-2/3	186885.6629	2980236.807	44768.6042	0.5	1	--	0.0279	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP69-S-4 (0.5'-1.0')	VP69-S-4	186942.2196	2980248.656	44768.5889	0.5	1	--	0.0711	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP6-M/N-17 (0.5'-1.0')	VP6-M/N-17	184685.0964	2987172.685	44720.5431	0.5	1	--	0.687	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP6-N-16 (0.5'-1.0')	VP6-N-16	184643.1549	2987154.702	44714.6208	0.5	1	--	4.26	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP6-N-16/17 (0.5'-1.0')	VP6-N-16/17	184663.5082	2987162.168	44714.6292	0.5	1	--	7.26	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP70-R-7/8 (0.5'-1.0')	VP70-R-7/8	187120.315	2980312.575	44768.6431	0.5	1	--	0.041	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP70-S-7 (0.5'-1.0')	VP70-S-7	187091.8193	2980262.044	44768.6465	0.5	1	--	0.037	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP70-T/U-7 (0.5'-1.0')	VP70-T/U-7	187086.779	2980186.824	44768.6569	0.5	1	--	0.0684	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP70-T-6 (0.5'-1.0')	VP70-T-6	187056.365	2980219.824	44768.65	0.5	1	--	0.095	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP70-U-5 (0.5'-1.0')	VP70-U-5	187016.4756	2980170.792	44768.6597	0.5	1	--	0.036	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP70-V-4 (0.5'-1.0')	VP70-V-4	186962.7759	2980101.249	44768.5486	0.5	1	--	0.035	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP70-V-5/6 (0.5'-1.0')	VP70-V-5/6	187028.4467	2980126.387	44768.5646	0.5	1	--	0.038	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP70-V-7 (0.5'-1.0')	VP70-V-7	187104.7894	2980106.969	44768.5694	0.5	1	--	0.038	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220726-4	VP70-V-7	187104.7894	2980106.969	44768	0.5	1	FD	0.036	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP71-P-20/21 (0.5'-1.0')	VP71-P-20/21	187772.6854	2980418.088	44777.5625	0.5	1	--	2.47	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP71-P-21 (0.5'-1.0')	VP71-P-21	187814.5426	2980394.707	44777.5604	0.5	1	--	1.13	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP71-Q-20 (0.5'-1.0')	VP71-Q-20	187744.7081	2980369.208	44777.5646	0.5	1	--	1.86	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP71-Q-21 (0.5'-0.9')	VP71-Q-21	187788.9757	2980346.566	44777.5667	0.5	0.89	--	0.954	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP71-R-20/21 (0.5'-1.0')	VP71-R-20/21	187773.3383	2980303.466	44777.5694	0.5	1	--	0.235	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP71-S-20 (0.5'-1.0')	VP71-S-20	187756.169	2980246.262	44777.5715	0.5	1	--	1.6	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-V/W-23 (0.5'-1.0')	VP72-V/W-23	187898.7298	2980076.068	44782.4028	0.5	1	--	0.043	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-V-19 (0.5'-0.9')	VP72-V-19	187688.9526	2980097.198	44777.5833	0.5	0.89	--	0.11	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-W-18/19 (0.5'-1.0')	VP72-W-18/19	187676.3542	2980058.496	44777.5861	0.5	1	--	2.48	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-W-20 (0.5'-0.9')	VP72-W-20	187749.5591	2980054.267	44777.5889	0.5	0.89	--	1.16	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-W-21 (0.5'-1.0')	VP72-W-21	187803.0564	2980058.621	44782.3972	0.5	1	--	1.12	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-W-21/22 (0.5'-1.0')	VP72-W-21/22	187835.1039	2980064.112	44782.4	0.5	1	--	0.99	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-X-19 (0.5'-1.0')	VP72-X-19	187701.0546	2980008.064	44777.5944	0.5	1	--	8.12	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220804-3	VP72-X-19	187701.0546	2980008.064	44777	0.5	1	FD	9.03	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-X-20 (0.5'-1.0')	VP72-X-20	187752.3728	2980005.585	44777.5972	0.5	1	--	0.075	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-X-21 (0.5'-0.9')	VP72-X-21	187801.9065	2980009.131	44782.3903	0.5	0.89	--	0.727	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-X-22 (0.5'-1.0')	VP72-X-22	187845.1515	2980014.75	44782.3924	0.5	1	--	1.55	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-X-23 (0.5'-1.0')	VP72-X-23	187895.9512	2980014.419	44782.4063	0.5	1	--	0.0658	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-Y-19 (0.5'-1.0')	VP72-Y-19	187702.056	2979955.746	44777.6118	0.5	1	--	4.64	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-Y-20 (0.5'-1.0')	VP72-Y-20	187750.9889	2979956.396	44777.6042	0.5	1	--	0.113	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)

Table A-1
Polychlorinated Biphenyl Concentrations in Vernal Pools

Sample ID	Location ID	X Coordinate	Y Coordinate	Collection Date	Start Depth (feet)	End Depth (feet)	Sample Type	Total PCBs (mg/kg)	Qualifier	Sampling Program
VP72-Y-21 (0.5'-1.0')	VP72-Y-21	187802.2254	2979957.716	44777.6076	0.5	1	--	3.32	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220804-4	VP72-Y-21	187802.2254	2979957.716	44777	0.5	1	FD	0.271	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-Y-22 (0.5'-1.0')	VP72-Y-22	187857.5222	2979959.017	44782.3861	0.5	1	--	0.194	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-Z-18 (0.5'-1.0')	VP72-Z-18	187664.0501	2979909.111	44777.6146	0.5	1	--	21.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP72-Z-21/22 (0.5'-1.0')	VP72-Z-21/22	187829.5042	2979908.013	44782.3819	0.5	1	--	4.11	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP73-AA-24/25 (0.5'-1.0')	VP73-AA-24/25	187986.4589	2979862.313	44782.4319	0.5	1	--	1.62	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP73A-AJ/AK-15/16 (0.5'-0.8')	VP73A-AJ/AK-15/16	187520.5176	2979376.473	44781.5868	0.5	0.8	--	4.87	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP73A-AJ-15/16 (0.5'-1.0')	VP73A-AJ-15/16	187542.1481	2979396.947	44781.5903	0.5	1	--	2.08	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP73A-AJ-17 (0.5'-1.0')	VP73A-AJ-17	187585.7914	2979419.645	44781.5972	0.5	1	--	1.21	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP73A-AK-15 (0.5'-1.0')	VP73A-AK-15	187495.4488	2979349.654	44781.5764	0.5	1	--	1.14	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP73A-AL-14/15 (0.5'-1.0')	VP73A-AL-14/15	187474.1037	2979316.614	44781.5694	0.5	1	--	11.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP73-AC-23 (0.5'-1.0')	VP73-AC-23	187901.5805	2979751.478	44782.4396	0.5	1	--	0.519	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP73-AD-22 (0.5'-1.0')	VP73-AD-22	187857.0593	2979700.357	44782.4417	0.5	1	--	25.6	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP73-AE-21 (0.5'-0.9')	VP73-AE-21	187812.9944	2979670.673	44782.4438	0.5	0.89	--	7.51	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220809-2	VP73-AE-21	187812.9944	2979670.673	44782	0.5	0.89	FD	6.15	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP73-AF-20 (0.5'-1.0')	VP73-AF-20	187763.5594	2979621.865	44782.4701	0.5	1	--	21.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP73-AG-20 (0.5'-0.9')	VP73-AG-20	187758.1293	2979570.862	44782.4722	0.5	0.89	--	0.478	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP74-P/Q-25 (0.5'-1.0')	VP74-P/Q-25	187995.6335	2980375.217	44782.3757	0.5	1	--	0.533	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP74-P-24 (0.5'-1.0')	VP74-P-24	187964.1489	2980401.589	44782.375	0.5	1	--	2.75	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP74-Q/R-25/26 (0.5'-1.0')	VP74-Q/R-25/26	188026.9444	2980329.935	44782.3813	0.5	1	--	0.223	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP74-S-25/26 (0.5'-1.0')	VP74-S-25/26	188030.1029	2980272.543	44782.3826	0.5	1	--	1.78	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP74-T-26/27 (0.5'-1.0')	VP74-T-26/27	188081.3547	2980223.029	44782.3875	0.5	1	--	0.677	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-B/C-2 (0.5'-1.0')	VP77-B/C-2	187757.2173	2978884.871	44795.5799	0.5	1	--	0.241	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-C-4 (0.5'-1.0')	VP77-C-4	187851.9398	2978841.543	44795.5729	0.5	1	--	1.42	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-D/E-4 (0.5'-1.0')	VP77-D/E-4	187837.7876	2978778.427	44795.5694	0.5	1	--	2.06	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-D/E-6 (0.5'-1.0')	VP77-D/E-6	187949.4085	2978790.734	44795.5625	0.5	1	--	0.845	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-D-2 (0.5'-1.0')	VP77-D-2	187762.5975	2978801.854	44797.3917	0.5	1	--	0.246	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-F-3 (0.5'-1.0')	VP77-F-3	187791.9075	2978699.708	44797.5097	0.5	1	--	2.31	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-F-4 (0.5'-1.0')	VP77-F-4	187852.5019	2978706.954	44797.375	0.5	1	--	7.83	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-F-6 (0.5'-1.0')	VP77-F-6	187941.7802	2978701.965	44792.3924	0.5	1	--	2.01	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-F-7 (0.5'-1.0')	VP77-F-7	188001.7893	2978715.9	44792.3833	0.5	1	--	1.16	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-H/I-7/8 (0.5'-1.0')	VP77-H/I-7/8	188026.74	2978586.487	44792.4042	0.5	1	--	1.12	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-H-2/3 (0.5'-1.0')	VP77-H-2/3	187775.1401	2978609.539	44797.5035	0.5	1	--	0.363	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-H-4 (0.5'-1.0')	VP77-H-4	187854.5744	2978609.332	44797.3681	0.5	1	--	13.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-H-6 (0.5'-1.0')	VP77-H-6	187951.7074	2978614.429	44792.4007	0.5	1	--	0.537	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77 I/J-2/3 (0.5'-1.0')	VP77-I/J-2/3	187781.1572	2978539.539	44797.5	0.5	1	--	0.826	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-I/J-4 (0.5'-1.0')	VP77-I/J-4	187852.452	2978534.062	44797.3583	0.5	1	--	1.11	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-I/J-6 (0.5'-1.0')	VP77-I/J-6	187953.5847	2978538.232	44792.4139	0.5	1	--	3.04	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-J/K-4(0.5'-1.0')	VP77-J/K-4	187837.658	2978477.578	44791.6306	0.5	1	--	15.5	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)

Table A-1
Polychlorinated Biphenyl Concentrations in Vernal Pools

Sample ID	Location ID	X Coordinate	Y Coordinate	Collection Date	Start Depth (feet)	End Depth (feet)	Sample Type	Total PCBs (mg/kg)	Qualifier	Sampling Program
VP77-K/L-3 (0.5'-1.0')	VP77-K/L-3	187786.5056	2978435.408	44792.4264	0.5	1	--	0.435	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-K-6 (0.5'-1.0')	VP77-K-6	187951.9629	2978476.489	44792.4097	0.5	1	--	5.56	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-L-4 (0.5'-1.0')	VP77-L-4	187862.1737	2978401.045	44797.3521	0.5	1	--	4.11	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220824-2	VP77-L-4	187862.1737	2978401.045	44797	0.5	1	FD	1.98	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-M/N-3 (0.5'-1.0')	VP77-M/N-3	187799.2552	2978330.699	44792.4354	0.5	1	--	1.51	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-M-9 (0.5'-1.0')	VP77-M-9	188114.5833	2978346.488	44792.3938	0.5	1	--	0.531	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220819-1	VP77-M-9	188114.5833	2978346.488	44792	0.5	1	FD	0.492	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-N/O-9 (0.5'-1.0')	VP77-N/O-9	188117.4226	2978284.759	44792.3965	0.5	1	--	0.0539	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-N-4 (0.5'-1.0')	VP77-N-4	187836.3191	2978294.296	44797.3479	0.5	1	--	2.24	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-P-2/3 (0.5'-1.0')	VP77-P-2/3	187780.5115	2978209.396	44796.5007	0.5	1	--	32.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-P-9/10 (0.5'-1.0')	VP77-P-9/10	188123.0912	2978195.555	44792.4097	0.5	1	--	0.0328	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP77-Q-12 (0.5'-1.0')	VP77-Q-12	188237.134	2978170.825	44792.4479	0.5	1	--	0.058	U	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP79-E/F-3(0.5'-1.0')	VP79-E/F-3	186365.6649	2977685.452	44789.5799	0.5	1	--	0.059	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP79-E-2/3 (0.5'-1.0')	VP79-E-2/3	186327.6145	2977713.387	44789.5694	0.5	1	--	0.187	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP79-E-3(0.5'-1.0')	VP79-E-3	186350.4766	2977702.763	44789.5764	0.5	1	--	0.0612	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP7-T-3/4 (0.5'-1.0')	VP7-T-3/4	184011.9764	2986850.712	44733.3743	0.5	1	--	0.214	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP7-U-4 (0.5'-1.0')	VP7-U-4	184021.0049	2986800.734	44719.3993	0.5	1	--	7.18	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP7-V-3/4 (0.5'-1.0')	VP7-V-3/4	184002.2405	2986744.568	44718.5167	0.5	1	--	65.6	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP7-V-4/5 (0.5'-1.0')	VP7-V-4/5	184055.0259	2986743.781	44718.5264	0.5	1	--	23.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP7-W-4/5 (0.5'-1.0')	VP7-W-4/5	184056.0308	2986694.139	44718.5319	0.5	1	--	73.8	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP7-X-5 (0.5'-0.9')	VP7-X-5	184084.2233	2986643.689	44718.5361	0.5	0.89	--	62.9	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP80-B/C-2(0.5'-1.0')	VP80-B/C-2	186296.252	2977823.87	44789.3764	0.5	1	--	1.22	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP80-B/C-3(0.5'-1.0')	VP80-B/C-3	186351.9602	2977837.434	44789.384	0.5	1	--	59.1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP80-B/C-4(0.5'-1.0')	VP80-B/C-4	186401.5074	2977830.237	44789.4007	0.5	1	--	59.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP80-B/C-5(0.5'-1.0')	VP80-B/C-5	186462.524	2977824.044	44789.5799	0.5	1	--	53.8	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP80-B-4(0.5'-1.0')	VP80-B-4	186418.4047	2977864.876	44789.4319	0.5	1	--	30.4	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP80-B-5/6(0.5'-1.0')	VP80-B-5/6	186471.2041	2977858.176	44789.5743	0.5	1	--	5.72	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP80-C/D-6(0.5'-1.0')	VP80-C/D-6	186488.8543	2977789.865	44789.5826	0.5	1	--	75.6	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP80-C-6(0.5'-1.0')	VP80-C-6	186516.8096	2977821.146	44789.5688	0.5	1	--	34.1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP80-D/E-6(0.5'-1.0')	VP80-D/E-6	186507.5082	2977738.773	44789.625	0.5	1	--	37.1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP80-D-7(0.5'-1.0')	VP80-D-7	186554.5799	2977757.974	44789.5958	0.5	1	--	32.7	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220816-2	VP80-D-7	186554.5799	2977757.974	44789	0.5	1	FD	49.2	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP80-E-7/8(0.5'-1.0')	VP80-E-7/8	186574.2708	2977707.472	44789.5979	0.5	1	--	27.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)

Table A-1
Polychlorinated Biphenyl Concentrations in Vernal Pools

Sample ID	Location ID	X Coordinate	Y Coordinate	Collection Date	Start Depth (feet)	End Depth (feet)	Sample Type	Total PCBs (mg/kg)	Qualifier	Sampling Program
VP80-F/G-7/8 (0.5'-1.0')	VP80-F/G-7/8	186579.8846	2977639.958	44789.6076	0.5	1	--	52.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP80-F-6/7(0.5'-1.0')	VP80-F-6/7	186535.9937	2977665.883	44789.6222	0.5	1	--	41.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP81-F-10(0.5'-1.0')	VP81-F-10	186716.2131	2977647.635	44789.5438	0.5	1	--	43.7	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP81-G-10/11(0.5'-1.0')	VP81-G-10/11	186720.6744	2977616.496	44789.5403	0.5	1	--	122	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP81-G-11(0.5'-1.0')	VP81-G-11	186741.9768	2977596.079	44789.5375	0.5	1	--	118	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP83-A/B-2 (0.5'-1.0')	VP83-A/B-2	186891.0431	2977337.041	44791.3646	0.5	1	--	48	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220818-4	VP83-A/B-2	186891.0431	2977337.041	44791	0.5	1	FD	55.7	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP83-B/C-1/2 (0.5'-1.0')	VP83-B/C-1/2	186873.7013	2977280.501	44791.3451	0.5	1	--	36.1	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP83-B-1/2(0.5'-1.0')	VP83-B-1/2	186880.6747	2977308.833	44790.3507	0.5	1	--	18.7	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP8-U/V-10 (0.5'-1.0')	VP8-U/V-10	184325.3006	2986780.251	44720.4875	0.5	1	--	5.88	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP8-V-10 (0.5'-1.0')	VP8-V-10	184318.7812	2986732.829	44720.4743	0.5	1	--	2.99	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP8-W-9/10 (0.5'-1.0')	VP8-W-9/10	184301.6071	2986693.319	44718.6076	0.5	1	--	6.87	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP9-V/W-14 (0.5'-1.0')	VP9-V/W-14	184543.4383	2986721.751	44720.4042	0.5	1	--	28.5	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP9-V-15/16 (0.5'-1.0')	VP9-V-15/16	184604.5257	2986735.17	44721.4319	0.5	1	--	1.48	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP9-W/X-13/14 (0.5'-1.0')	VP9-W/X-13/14	184505.6821	2986681.659	44720.4	0.5	1	--	5.64	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP9-W/X-16 (0.5'-1.0')	VP9-W/X-16	184616.4798	2986676.109	44720.4271	0.5	1	--	28.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220608-3	VP9-W/X-16	184616.4798	2986676.109	44720	0.5	1	FD	23.7	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP9-W-15 (0.5'-0.9')	VP9-W-15	184575.0842	2986691.758	44720.4111	0.5	0.89	--	66.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP9-W-17 (0.5'-0.9')	VP9-W-17	184673.1847	2986697.056	44721.4354	0.5	0.89	--	68.7	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
DUP-FP-20220609-2	VP9-W-17	184673.1847	2986697.056	44721	0.5	0.89	FD	80.9	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP9-X/Y-16 (0.5'-1.0')	VP9-X/Y-16	184627.8393	2986631.884	44721.4208	0.5	1	--	77.5	J	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP9-X-13 (0.5'-1.0')	VP9-X-13	184465.6776	2986645.707	44720.4417	0.5	1	--	11.6	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)
VP9-X-14 (0.5'-1.0')	VP9-X-14	184526.3953	2986640.175	44720.4347	0.5	1	--	81.3	--	2022 PDI (Reach 5A Non-Residential Floodplain Exposure Areas)

Notes:
Projections in NAD 1983 State Plane Massachusetts Mainland FIPS 2001 (US Feet)
--: no data
EPA: U.S. Environmental Protection Agency
FD: field duplicate
J: estimated detected value
mg/kg: milligram per kilogram
PDI: Pre-Design Investigation
U: not detected at reported value
UJ: estimated non-detect value

Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

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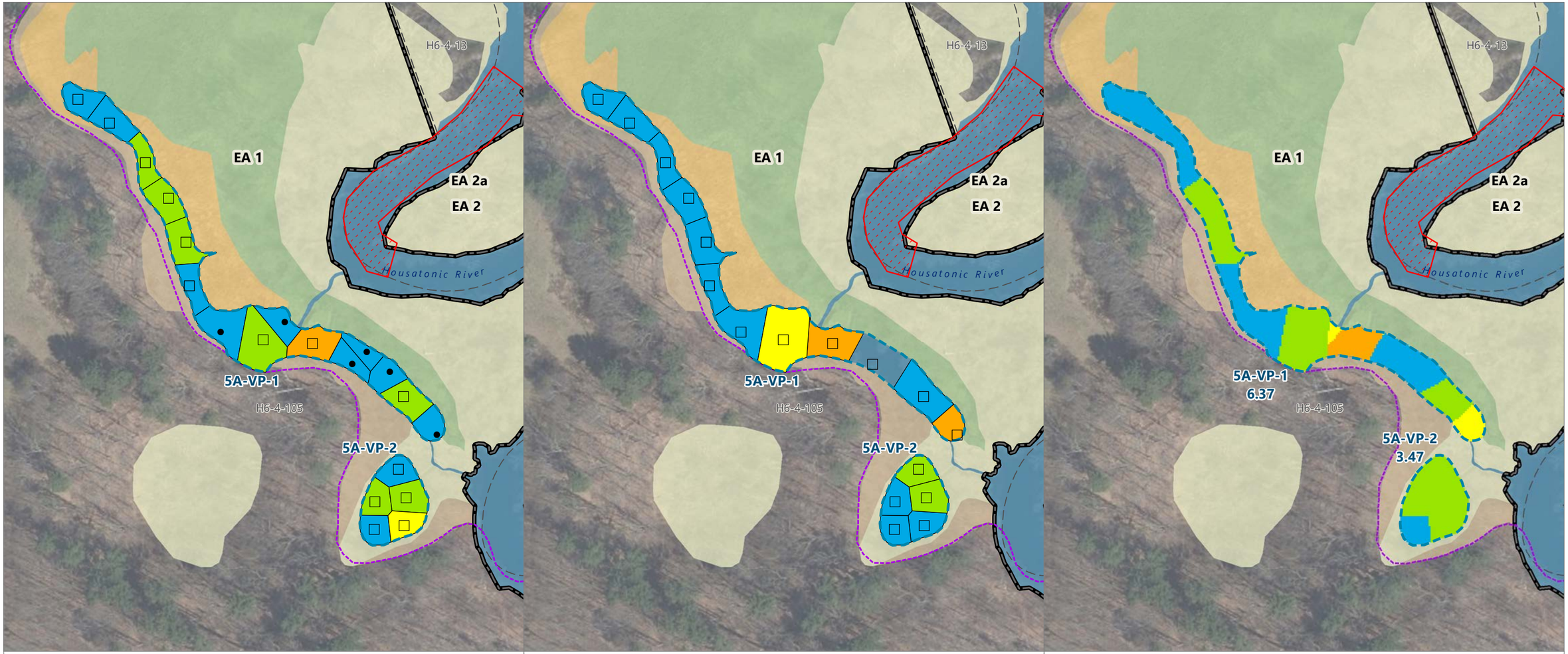
ANCHOR QEA

Figure A-1a
Vernal Pools in Exposure Area 1
Final Revised Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)
- Core Area 1 Habitat

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 150
Feet

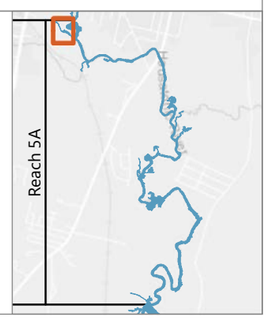


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Figure A-1b
Vernal Pools in Exposure Area 1
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River

Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 100
Feet

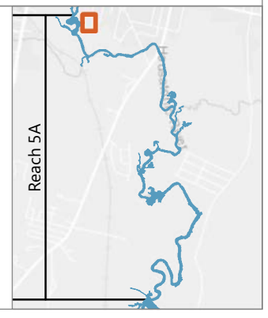

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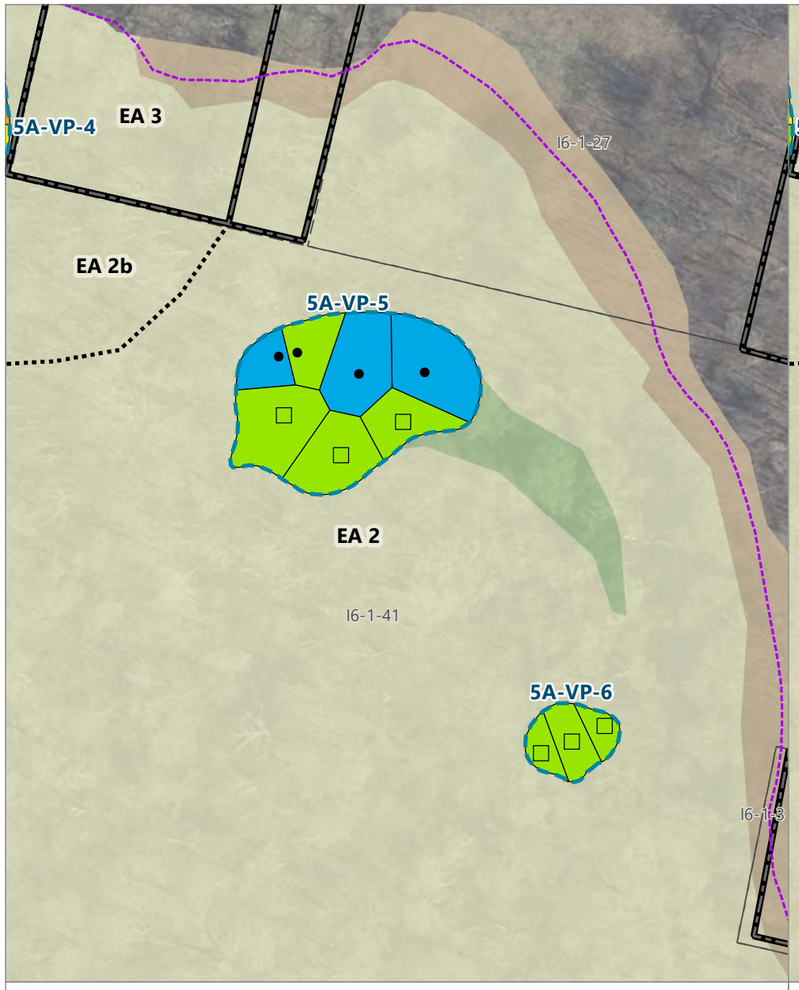
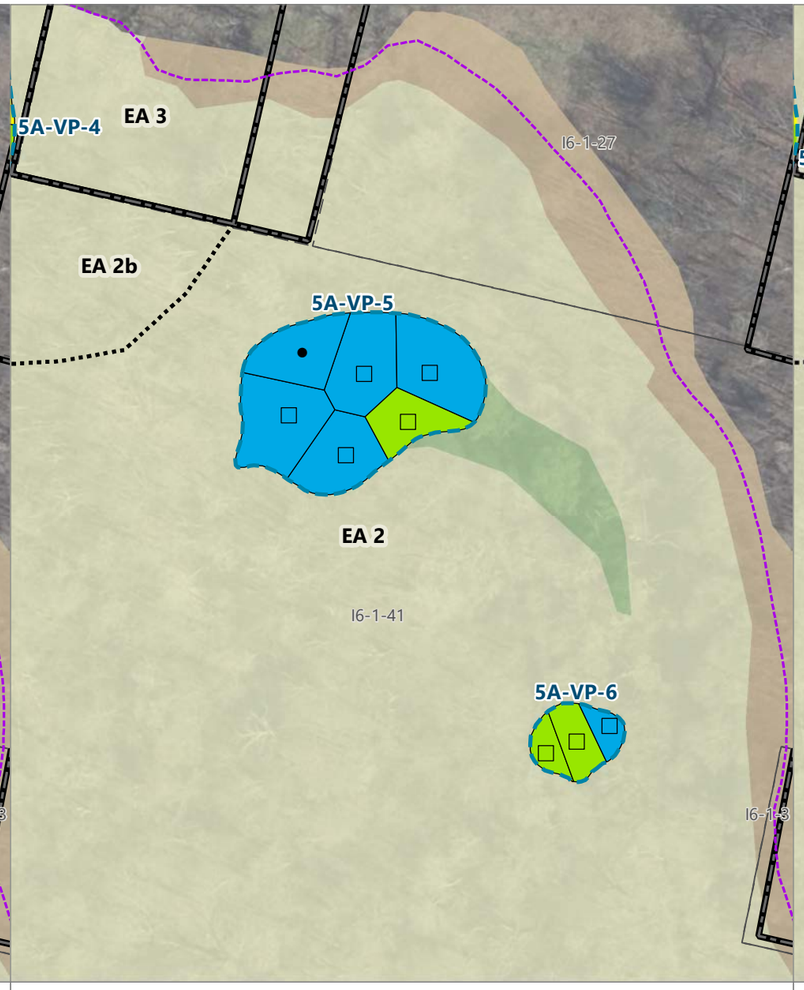
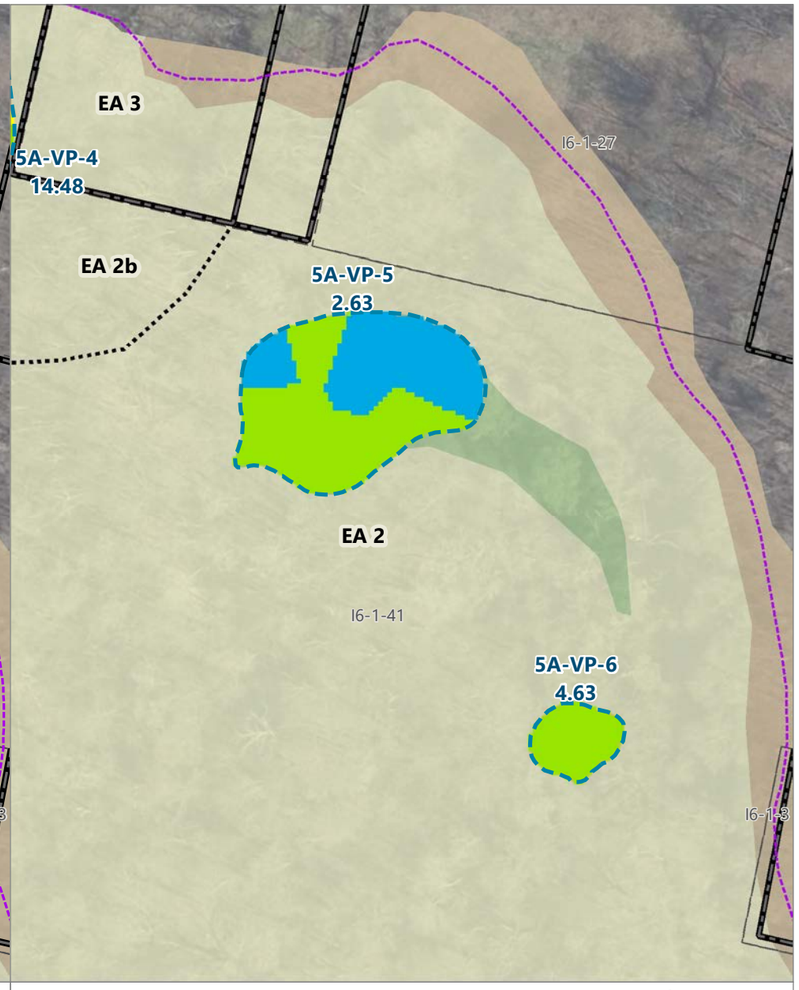
Figure A-1c
Vernal Pools in Exposure Area 2
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches)



Total PCB (6 to 12 inches)



Total PCB (Interpolated 0 to 12 inches)[1]

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

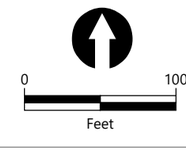
- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.



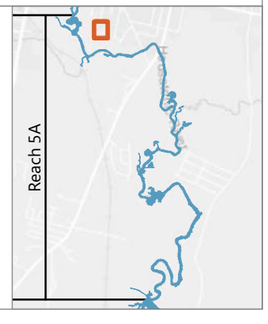


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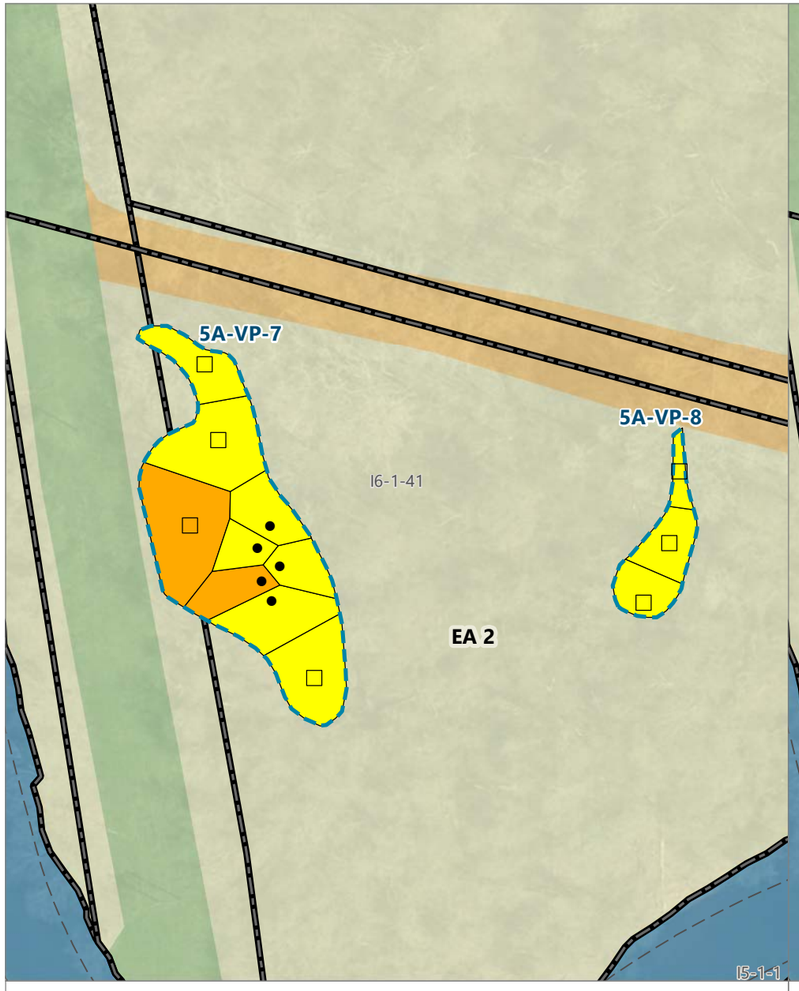
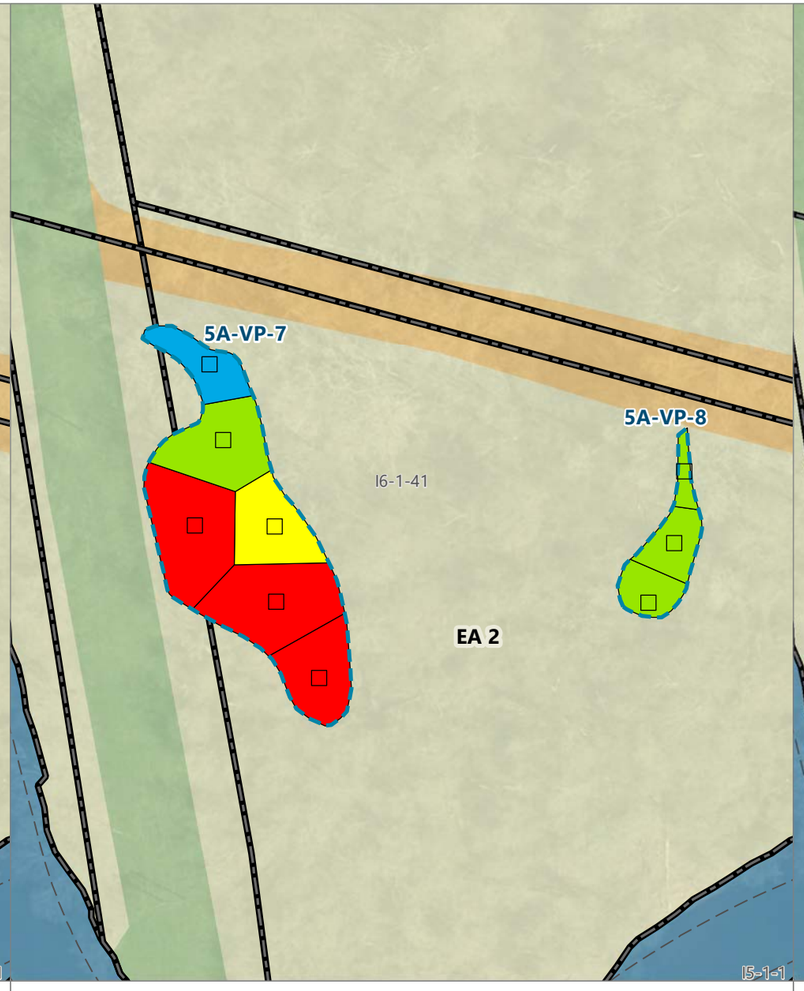
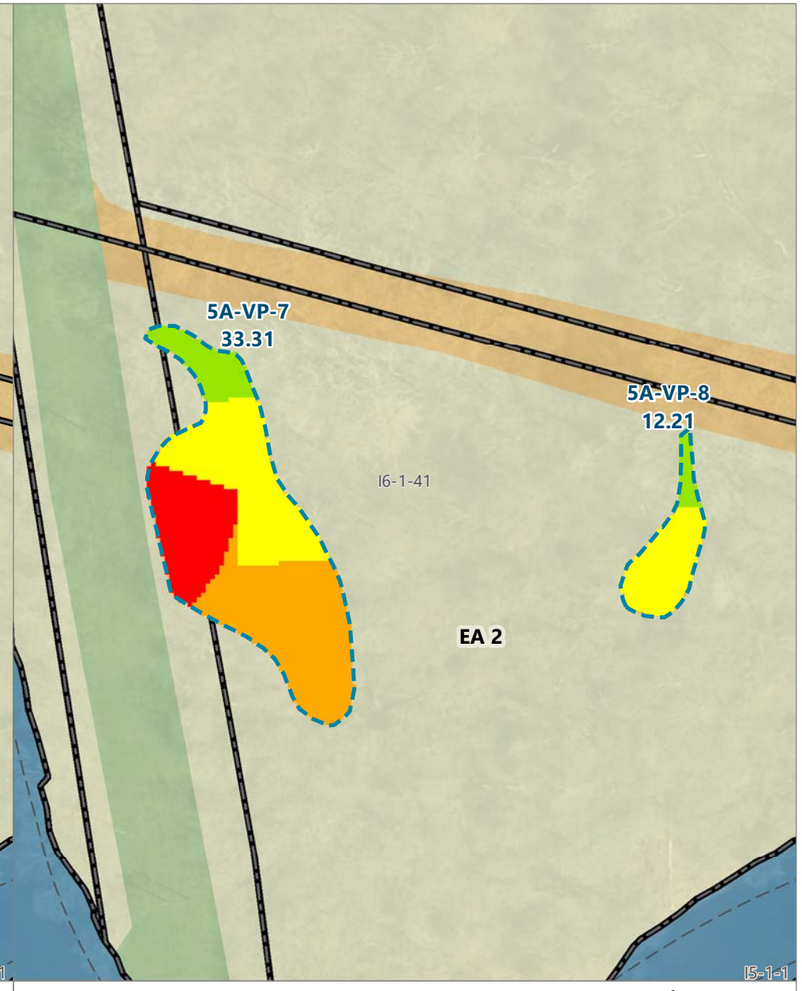
Figure A-1d
Vernal Pools in Exposure Area 2
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches)



Total PCB (6 to 12 inches)



Total PCB (Interpolated 0 to 12 inches)[1]

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 100
Feet

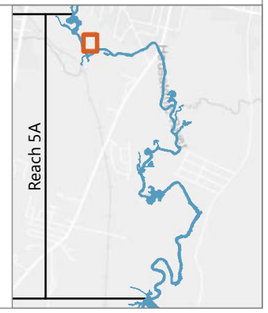


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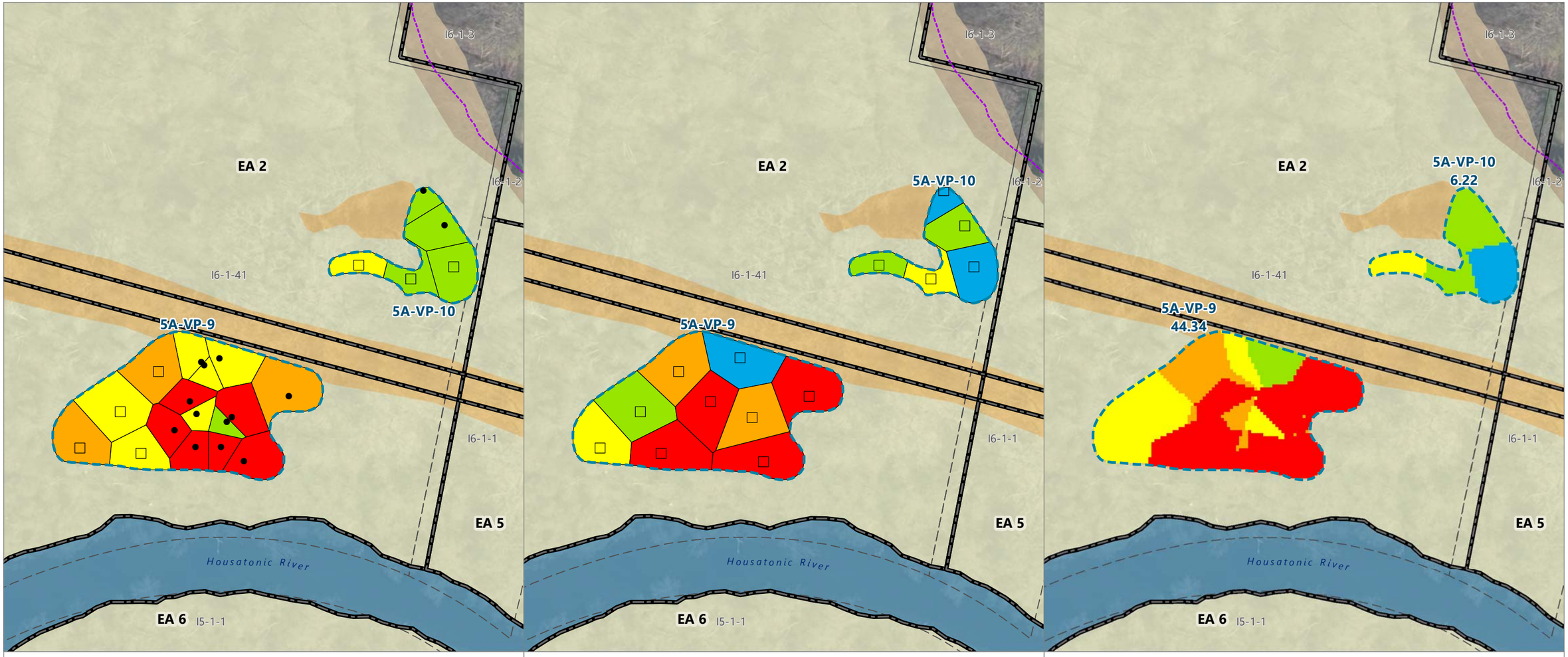
Figure A-1e
Vernal Pools in Exposure Area 2
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 100
Feet

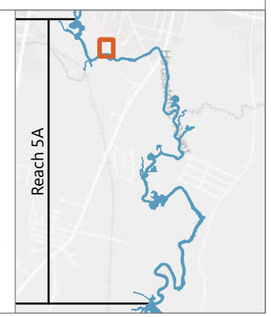


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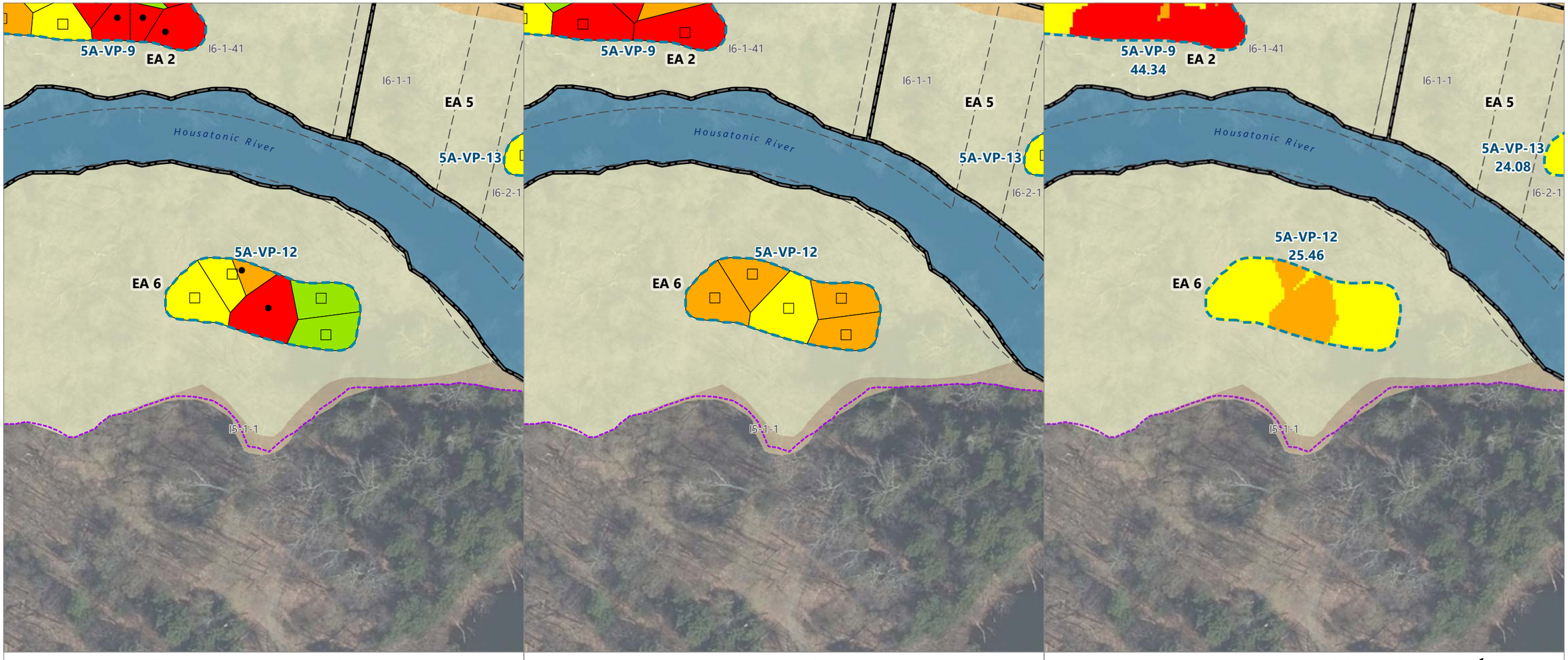
Figure A-1f
Vernal Pools in Exposure Area 2
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

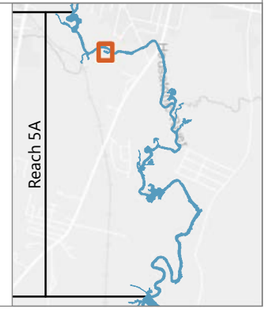
- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 100
Feet



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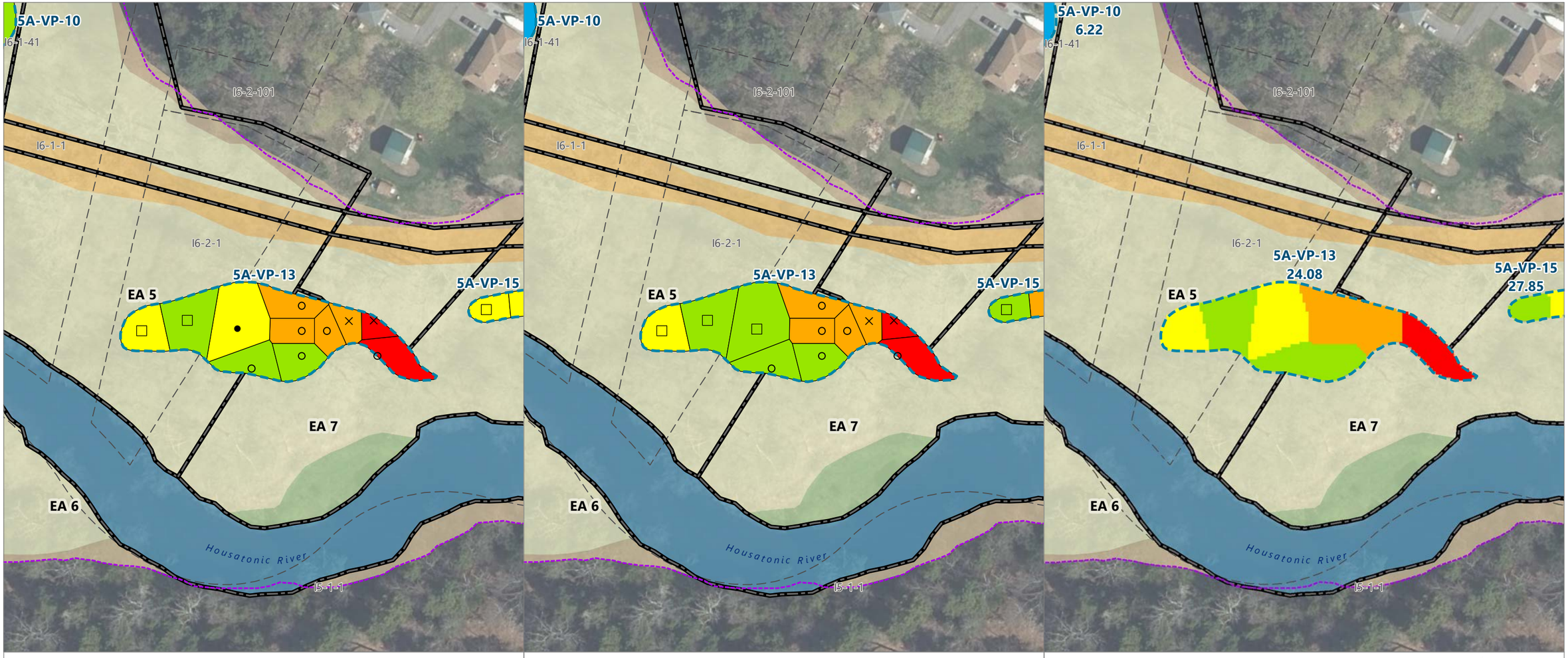
ANCHOR QEA

Figure A-1g
Vernal Pool in Exposure Area 6
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

- Non-Residential PDI Sampling Locations (2022)
- Residential PDI Sampling Locations (2020-2021)
- Actual/Potential Lawn Sampling Locations
- Historical Sampling Locations

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 100
Feet

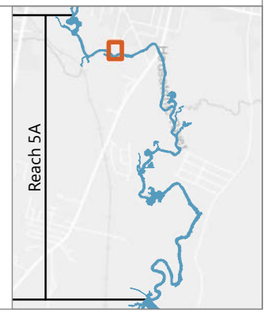


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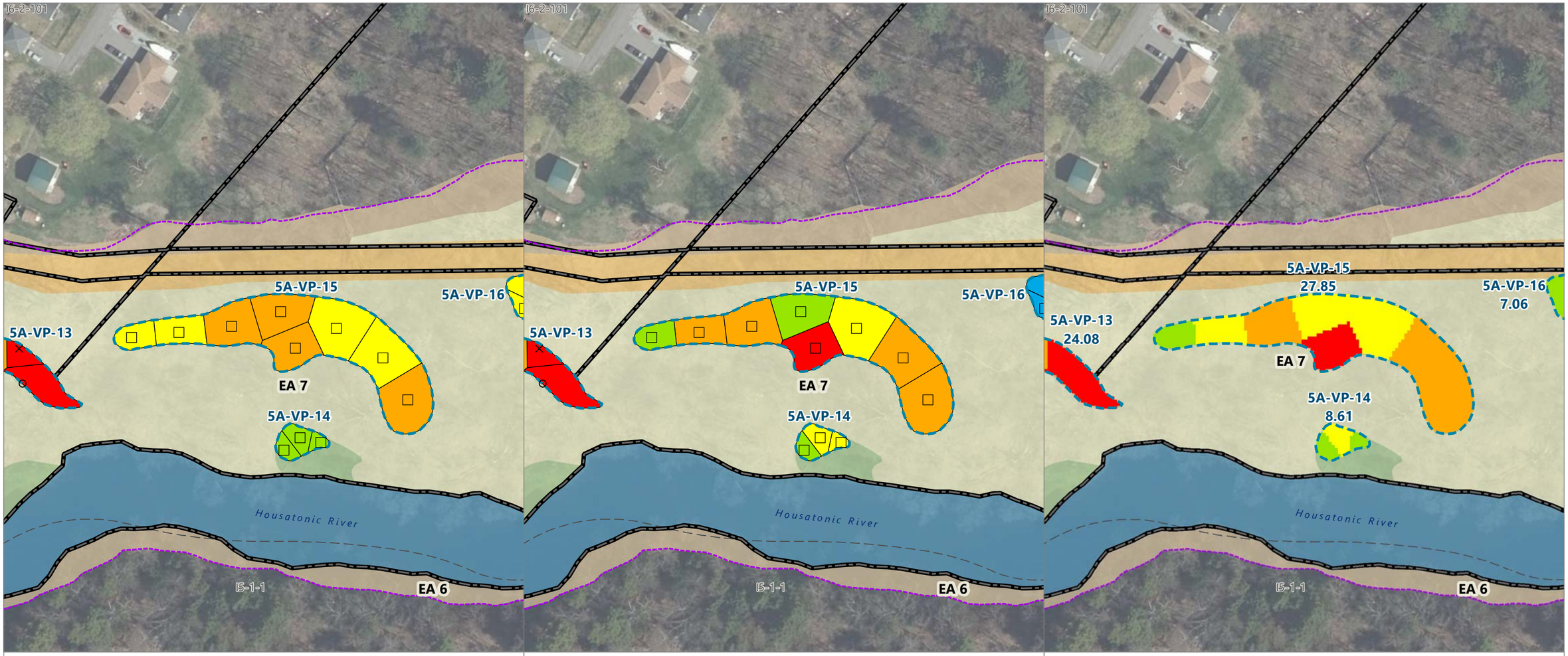
Figure A-1h
Vernal Pool in Exposure Areas 5 and 7
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

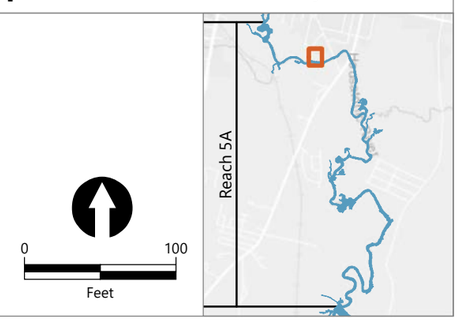
- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

- Non-Residential PDI Sampling Locations (2022)
- Residential PDI Sampling Locations (2020-2021)
- Actual/Potential Lawn Sampling Locations

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.



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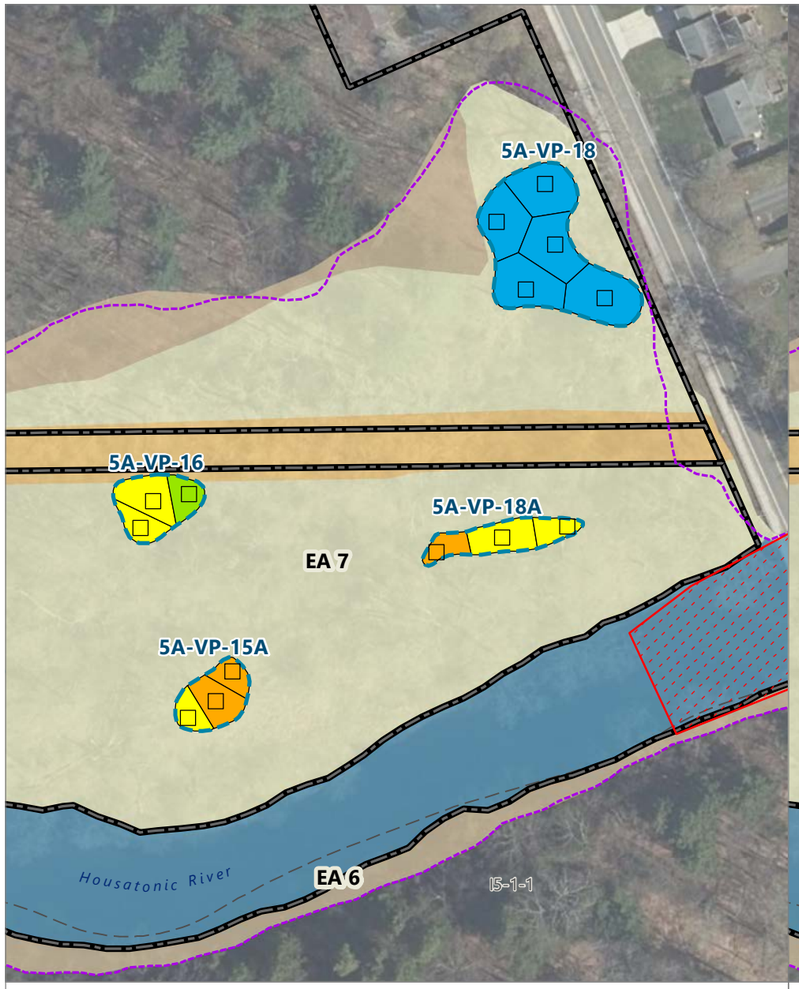
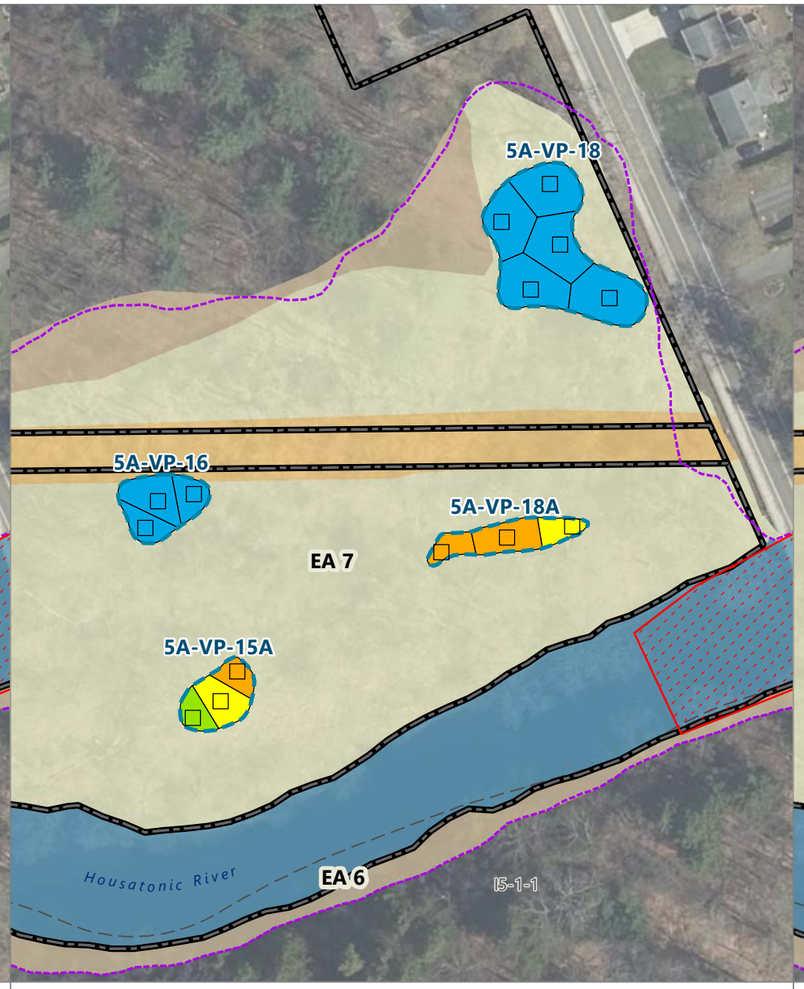
ANCHOR QEA

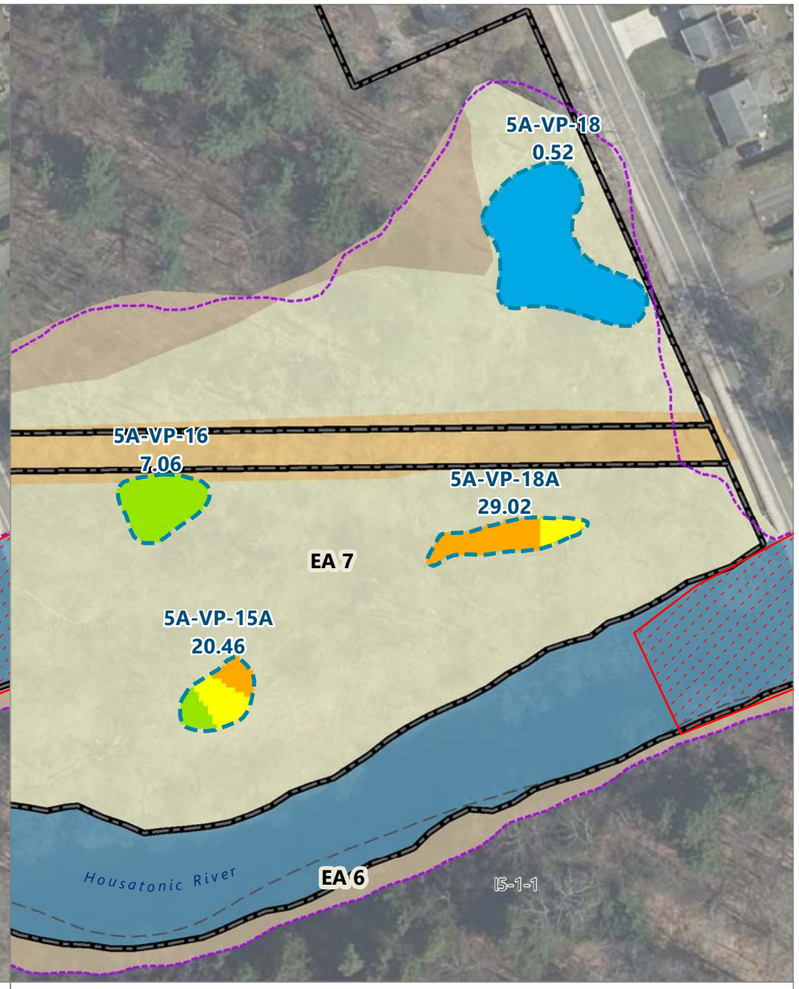
Figure A-1i
Vernal Pools in Exposure Area 7
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches)



Total PCB (6 to 12 inches)



Total PCB (Interpolated 0 to 12 inches)[1]

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)
- Core Area 1 Habitat

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

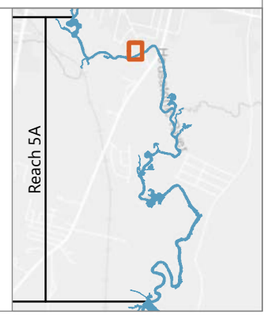
- Non-Residential PDI Sampling Locations (2022)

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 100
Feet



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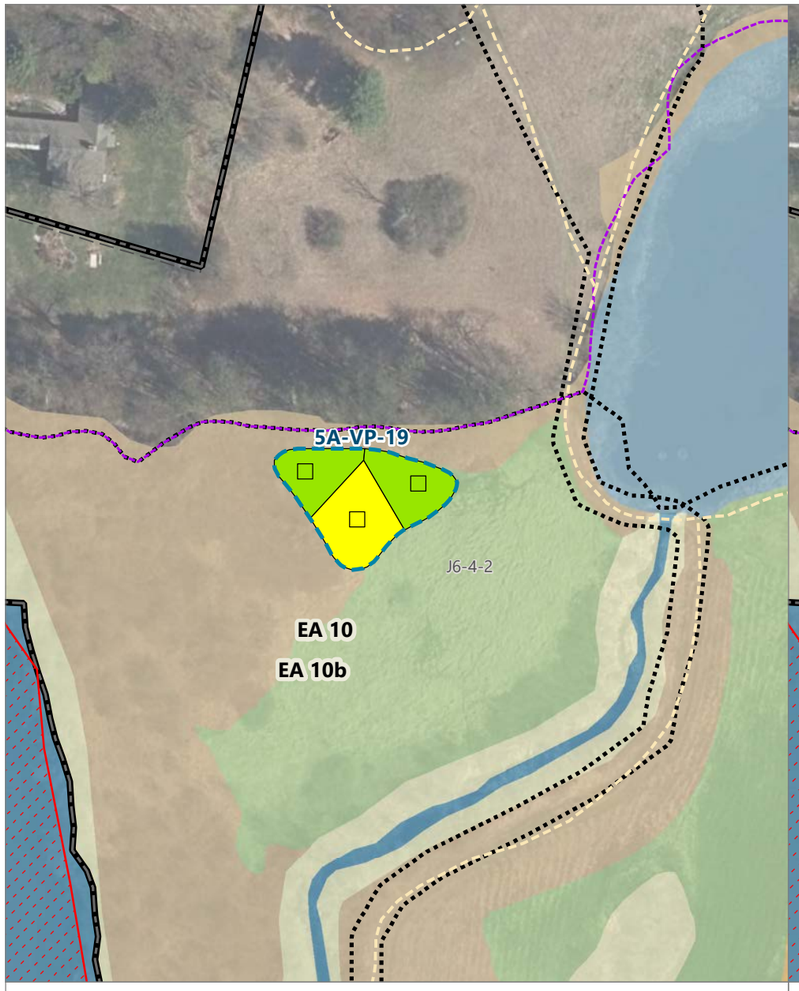
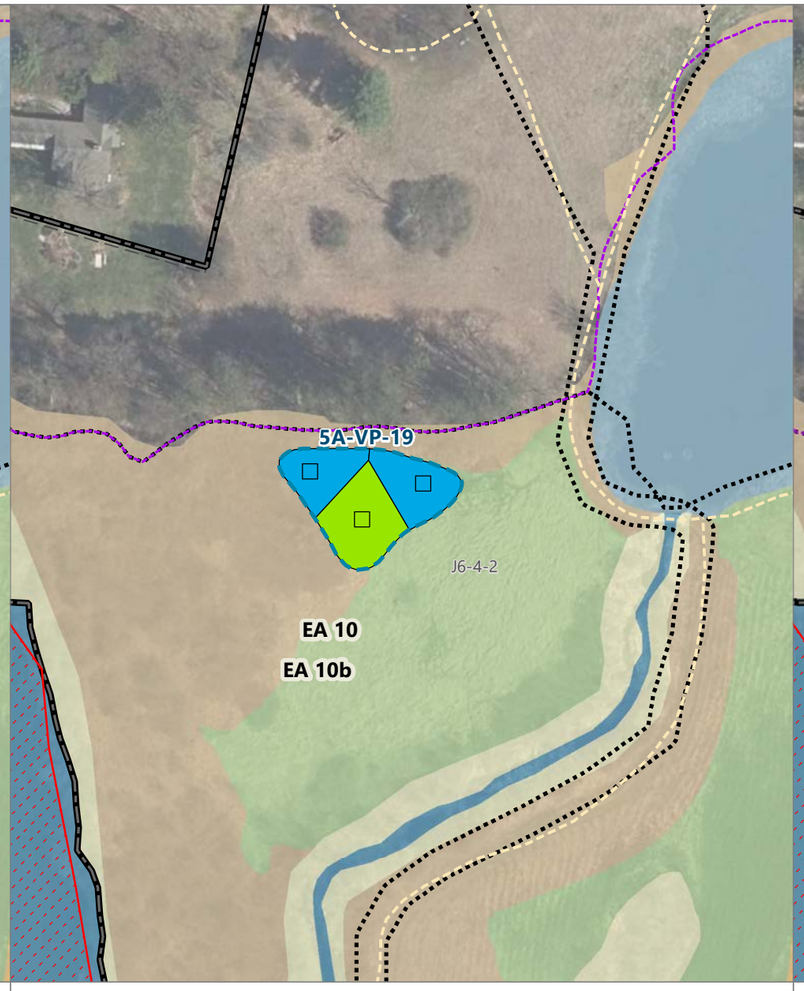
ANCHOR QEA

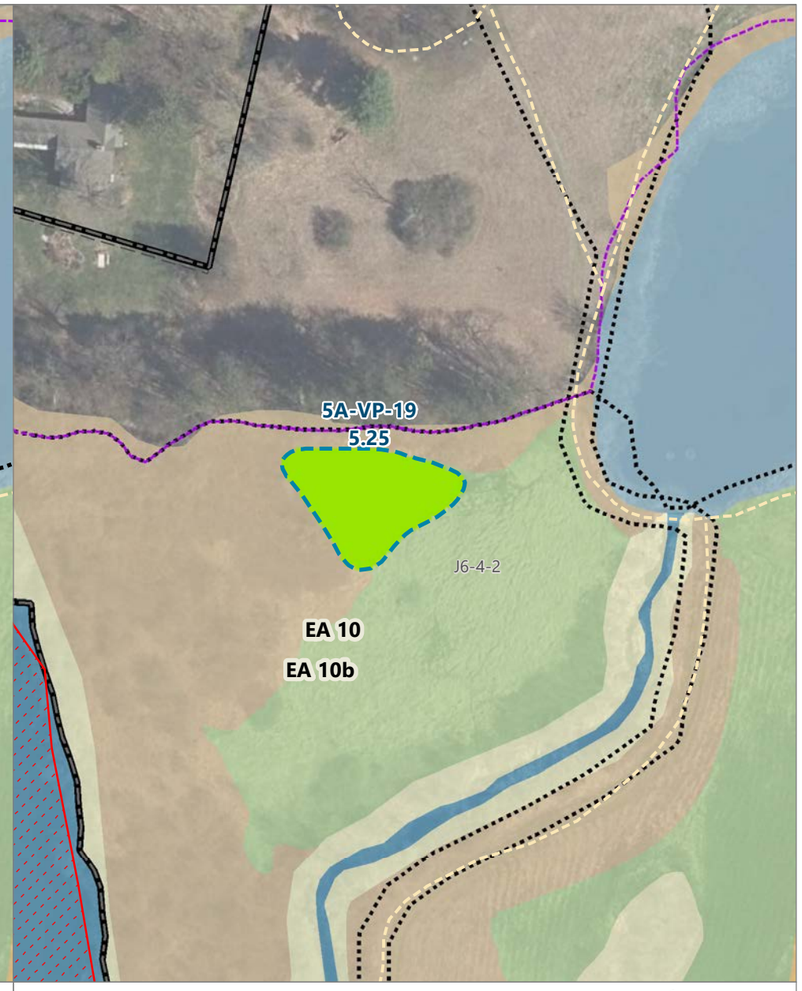
Figure A-1j
Vernal Pools in Exposure Area 7
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches)



Total PCB (6 to 12 inches)



Total PCB (Interpolated 0 to 12 inches)[1]

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)
- Core Area 1 Habitat
- Walking Trails

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

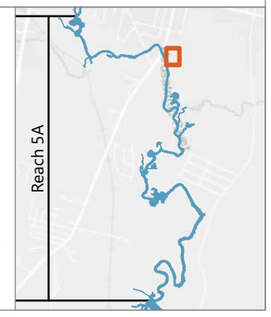
- Non-Residential PDI Sampling Locations (2022)

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 100
Feet



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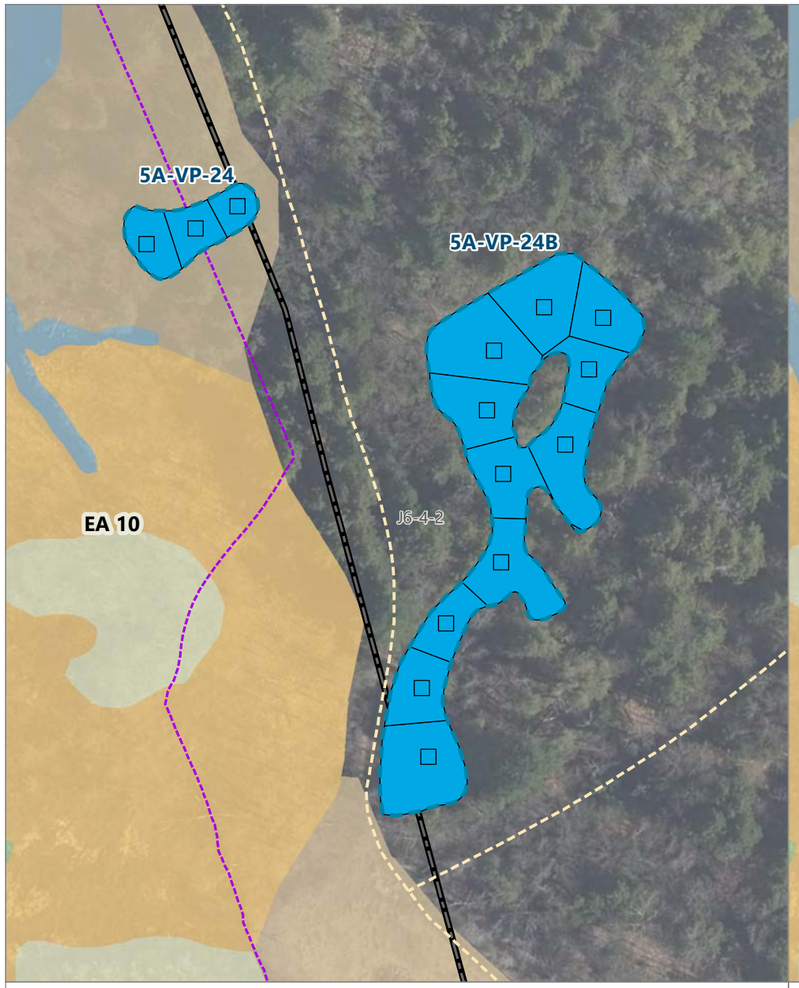
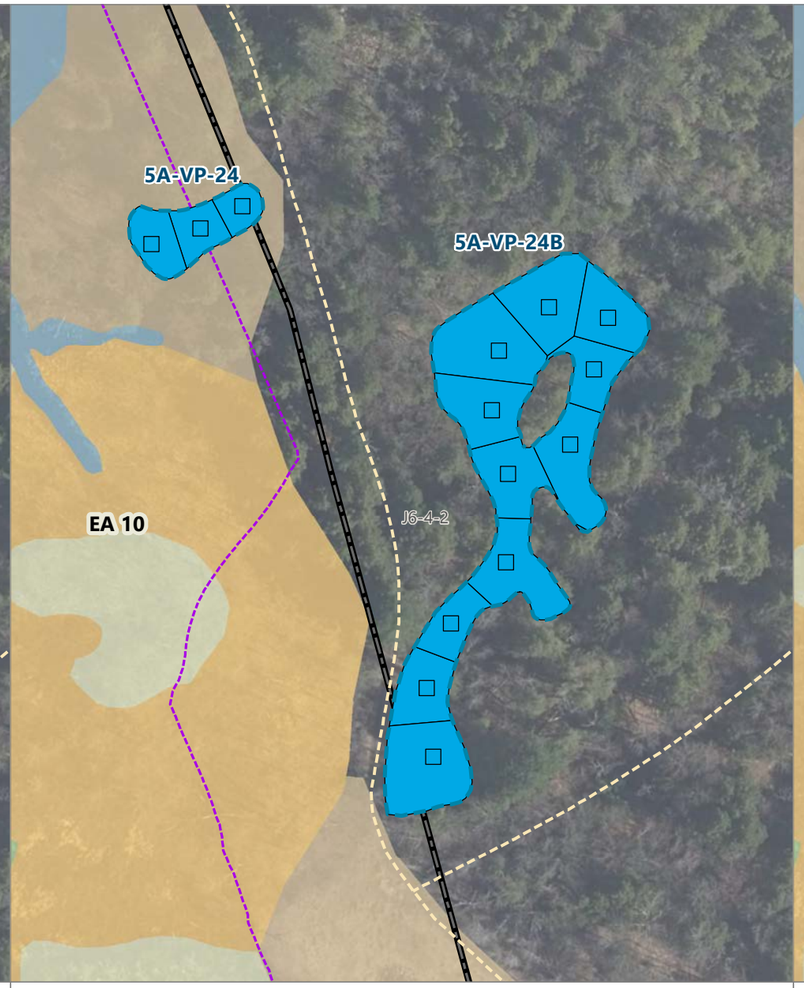
ANCHOR QEA

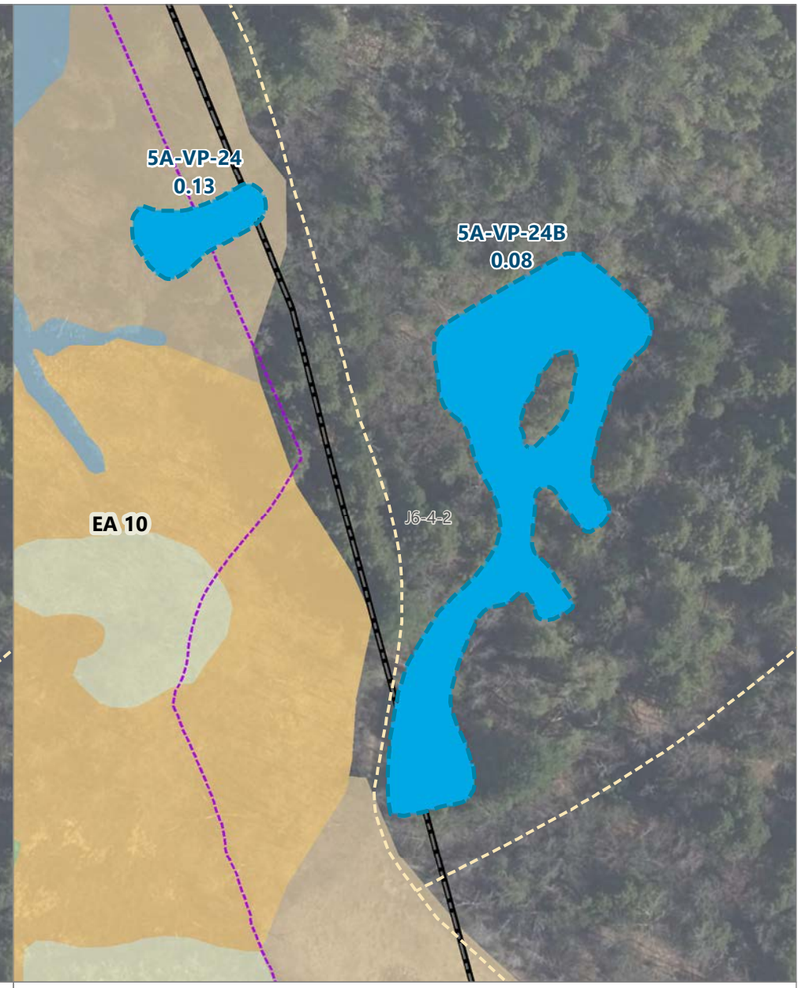
Figure A-1k
Vernal Pools in Exposure Area 10
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches)



Total PCB (6 to 12 inches)



Total PCB (Interpolated 0 to 12 inches)[1]

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)
- Walking Trails

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

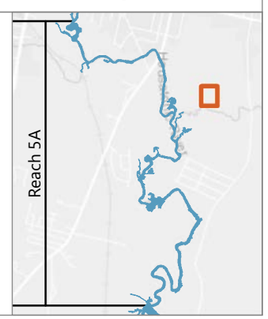
- Non-Residential PDI Sampling Locations (2022)

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 120
Feet



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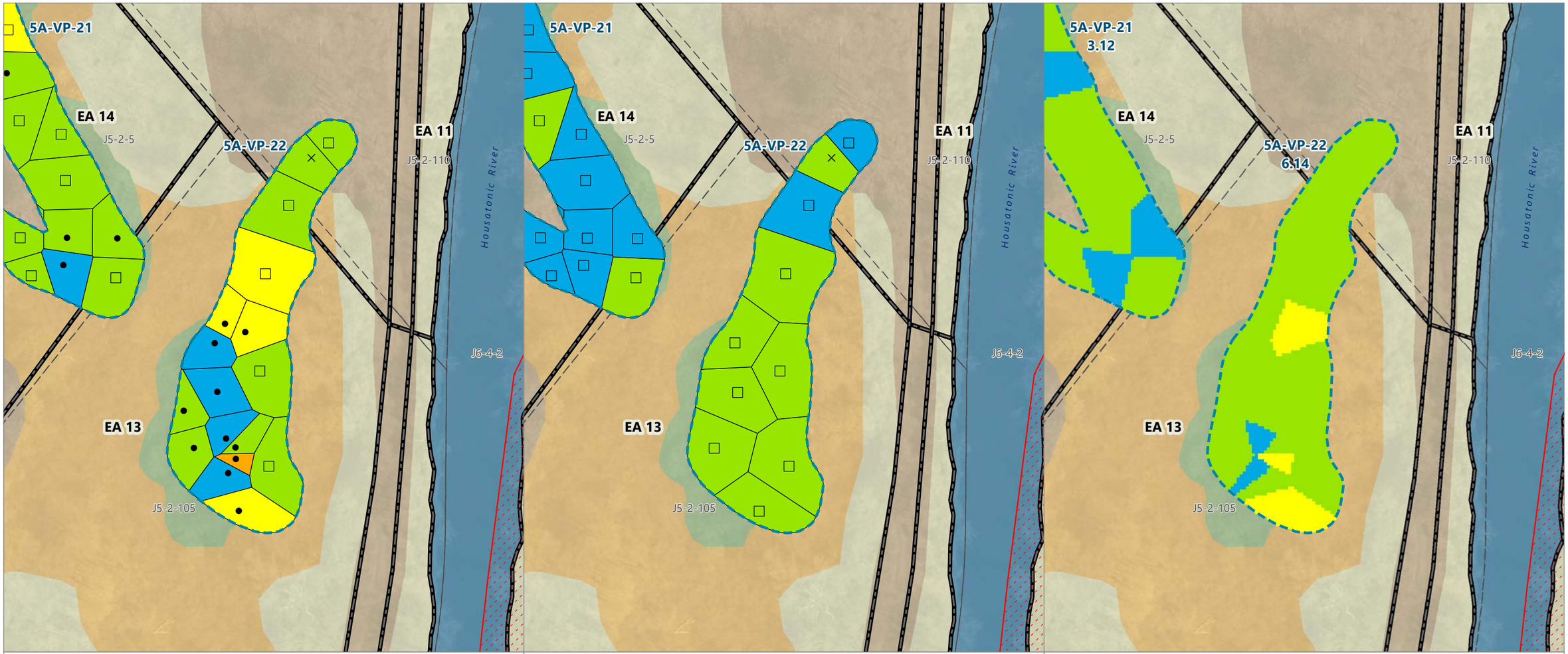
ANCHOR QEA

Figure A-1l
Vernal Pools in Exposure Area 10
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)
- Core Area 1 Habitat

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

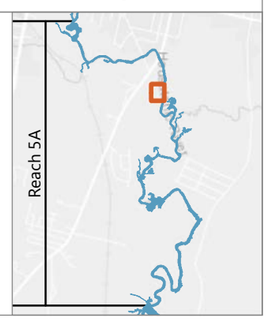
- Non-Residential PDI Sampling Locations (2022)
- Actual/Potential Lawn Sampling Locations
- Historical Sampling Locations

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 100
Feet



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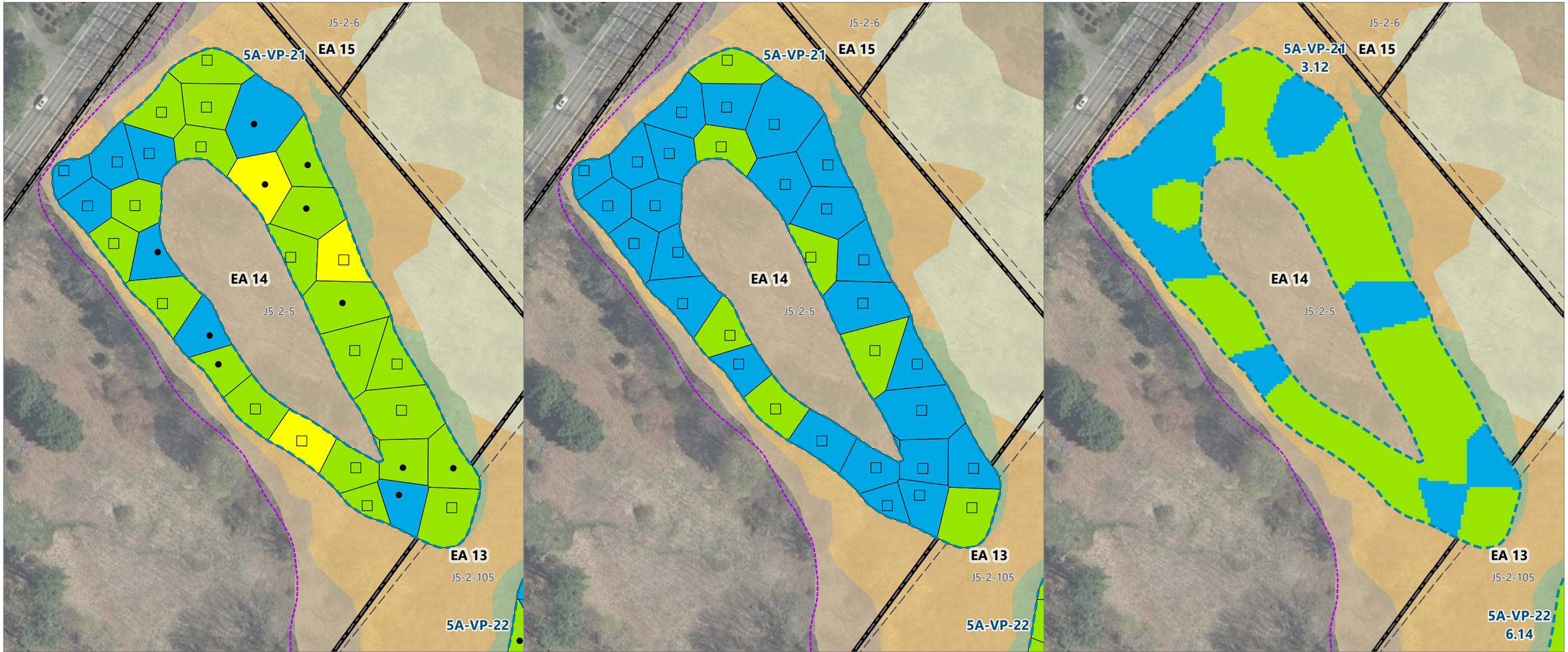
ANCHOR QEA

Figure A-1m
Vernal Pool in Exposure Area 13
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

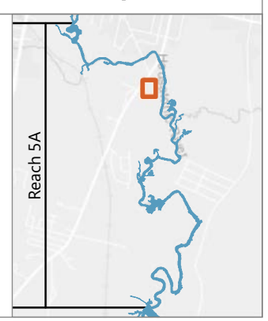
- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 100
Feet



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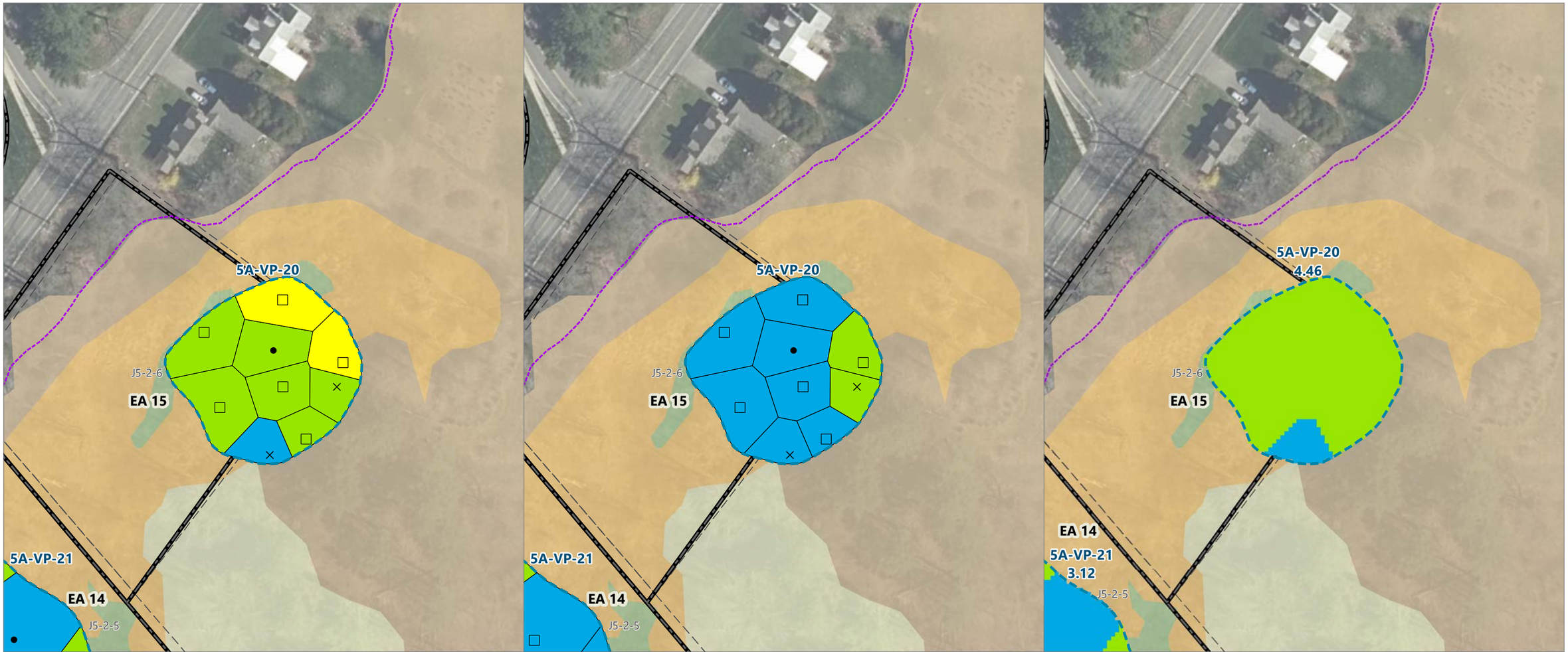
ANCHOR QEA

Figure A-1n
Vernal Pool in Exposure Area 14
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

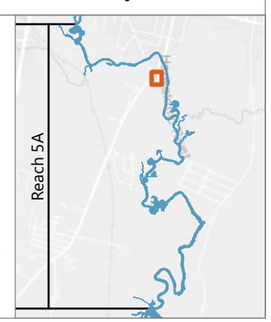
- Non-Residential PDI Sampling Locations (2022)
- Actual/Potential Lawn Sampling Locations
- Historical Sampling Locations

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 80
Feet



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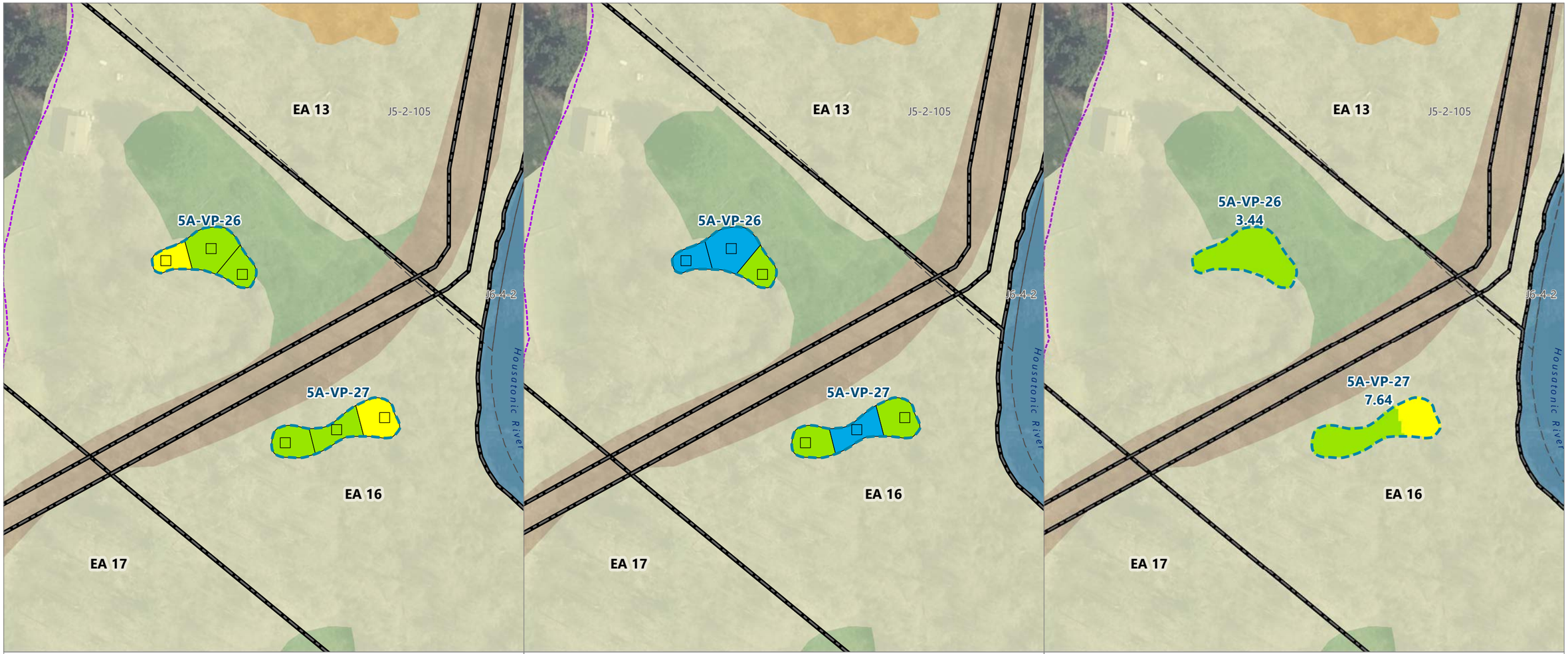
ANCHOR QEA

Figure A-1o
Vernal Pool in Exposure Area 15
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

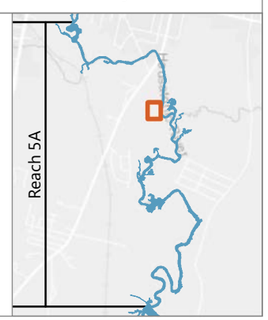
- Non-Residential PDI Sampling Locations (2022)

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 100
Feet



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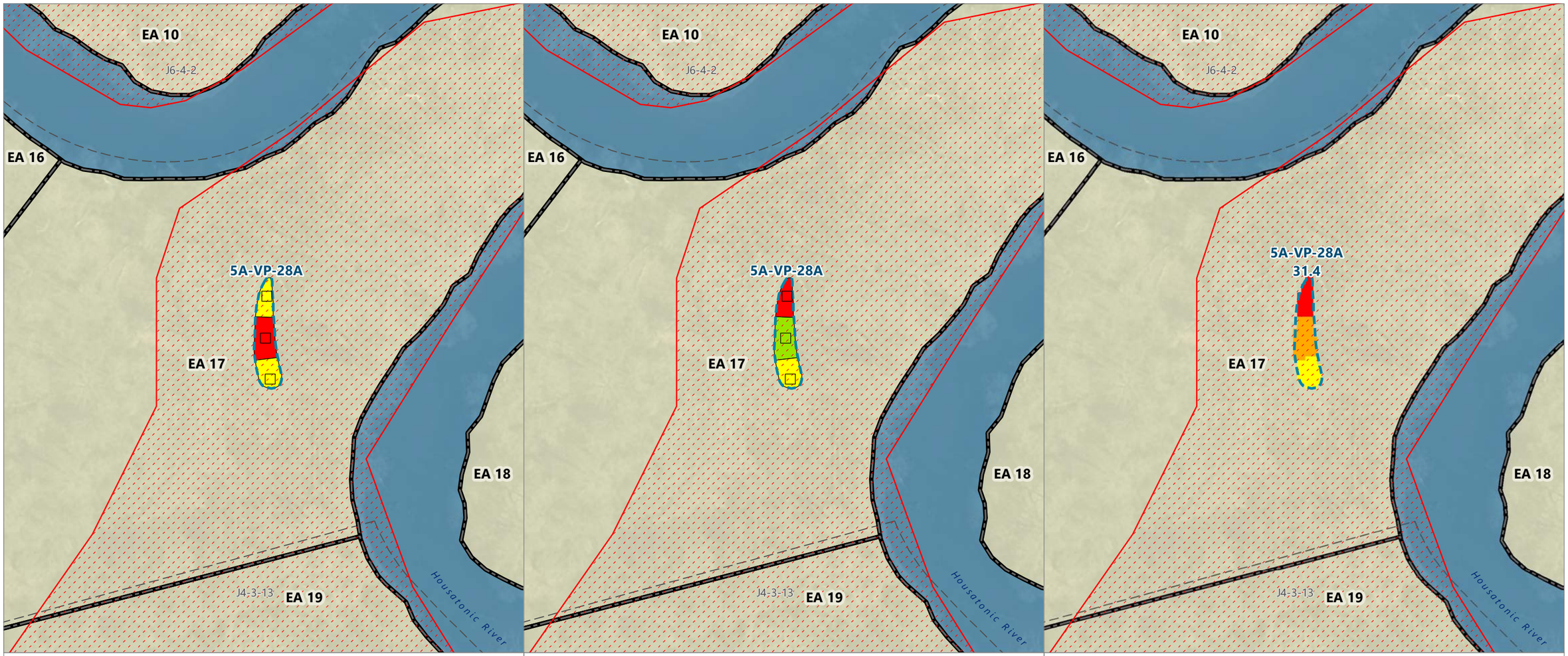
ANCHOR QEA

Figure A-1p
Vernal Pools in Exposure Area 16
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)
- Core Area 1 Habitat

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

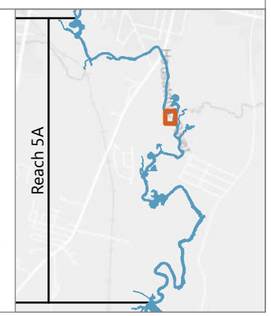
- Non-Residential PDI Sampling Locations (2022)

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 80
Feet



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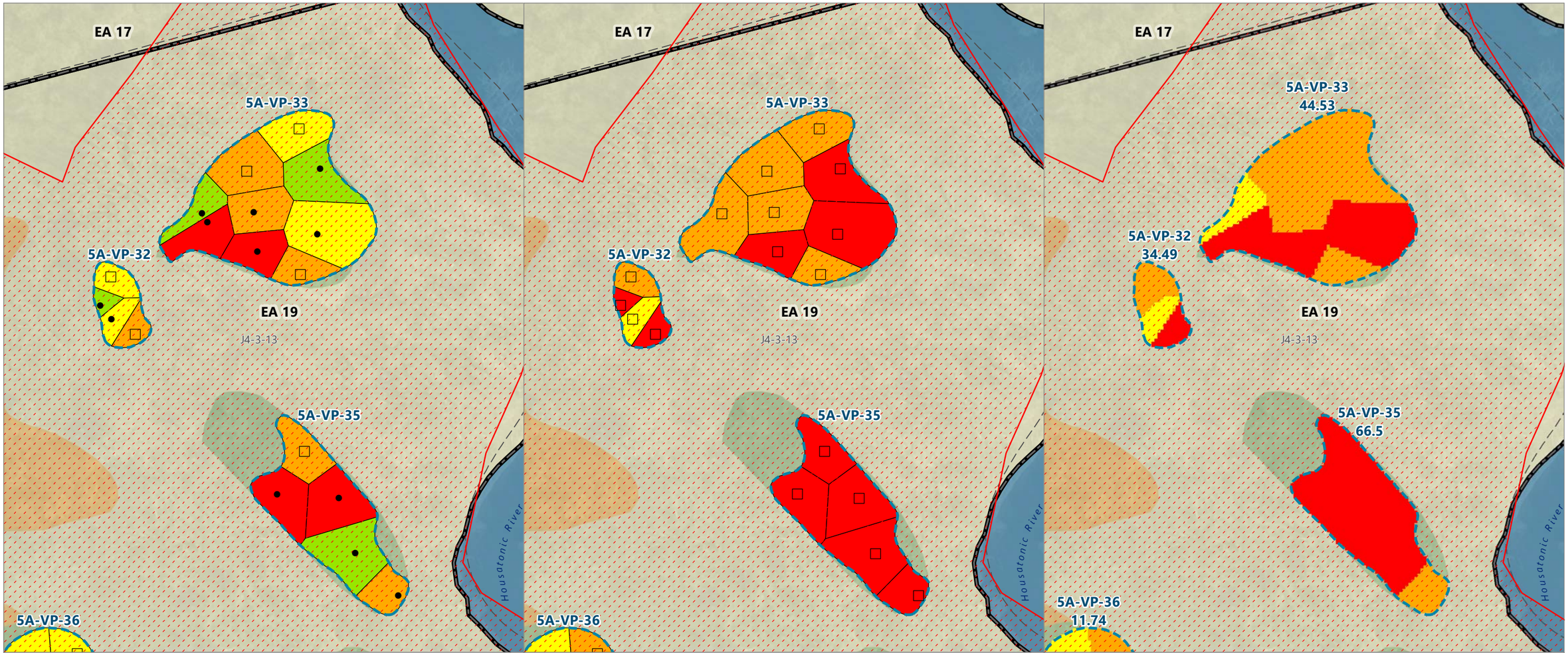
ANCHOR QEA

Figure A-1q
Vernal Pool in Exposure Area 17
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)
- Core Area 1 Habitat

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

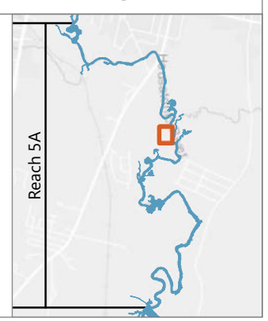
- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 100
Feet



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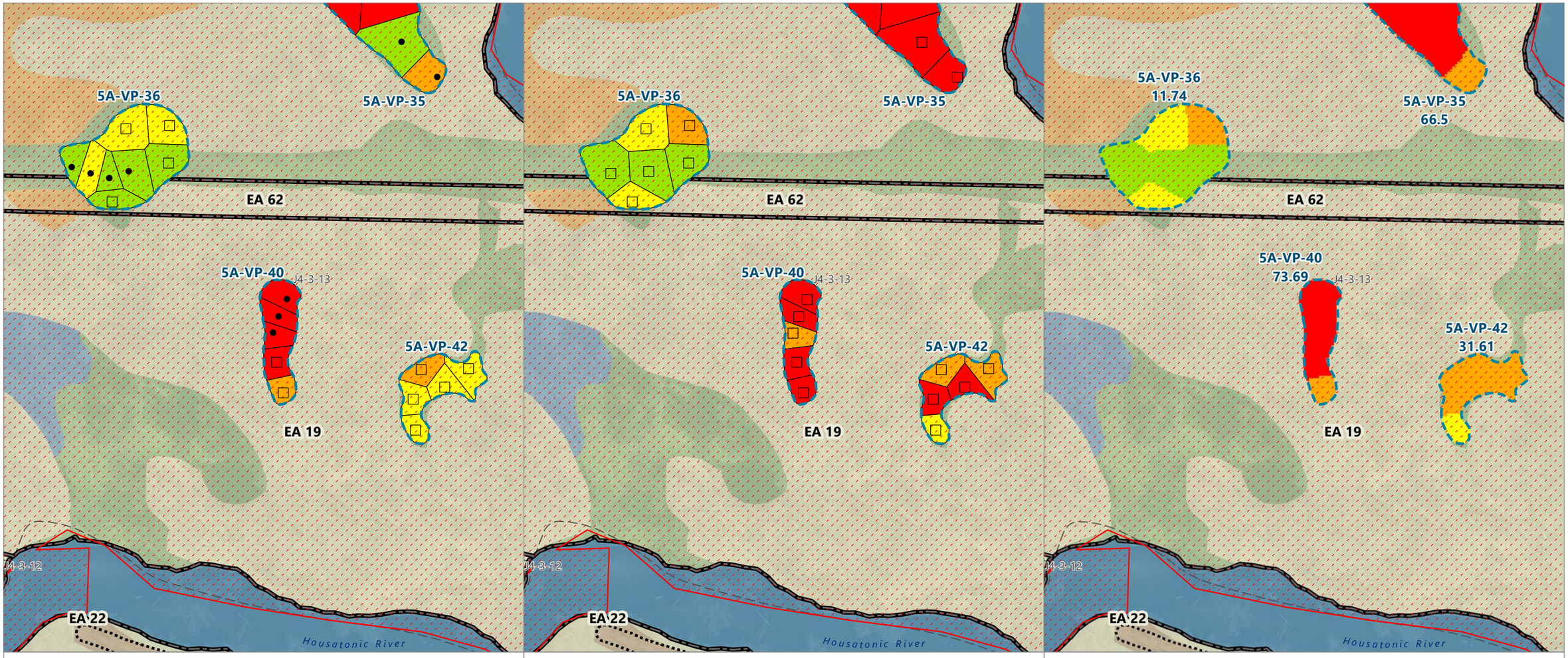
ANCHOR QEA

Figure A-1r
Vernal Pools in Exposure Area 19
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)
- Core Area 1 Habitat

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

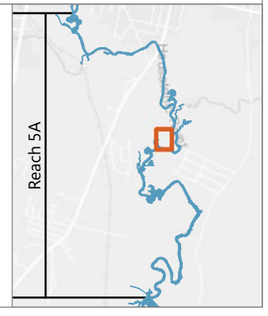
- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 120
Feet



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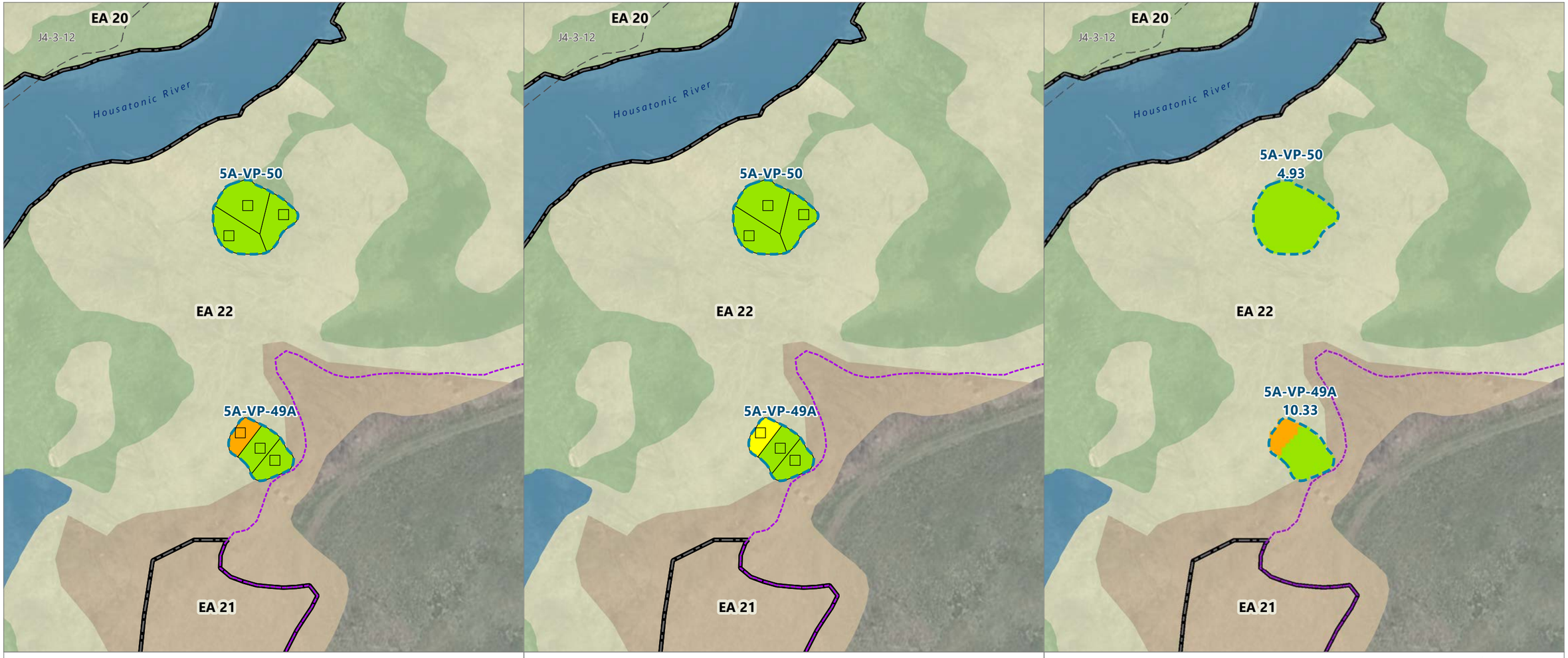
ANCHOR QEA

Figure A-1s
Vernal Pools in Exposure Area 19
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

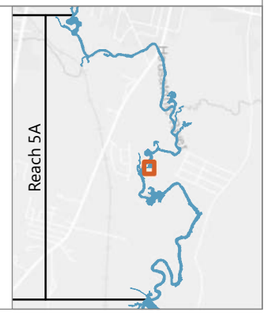
- Non-Residential PDI Sampling Locations (2022)

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 80
Feet



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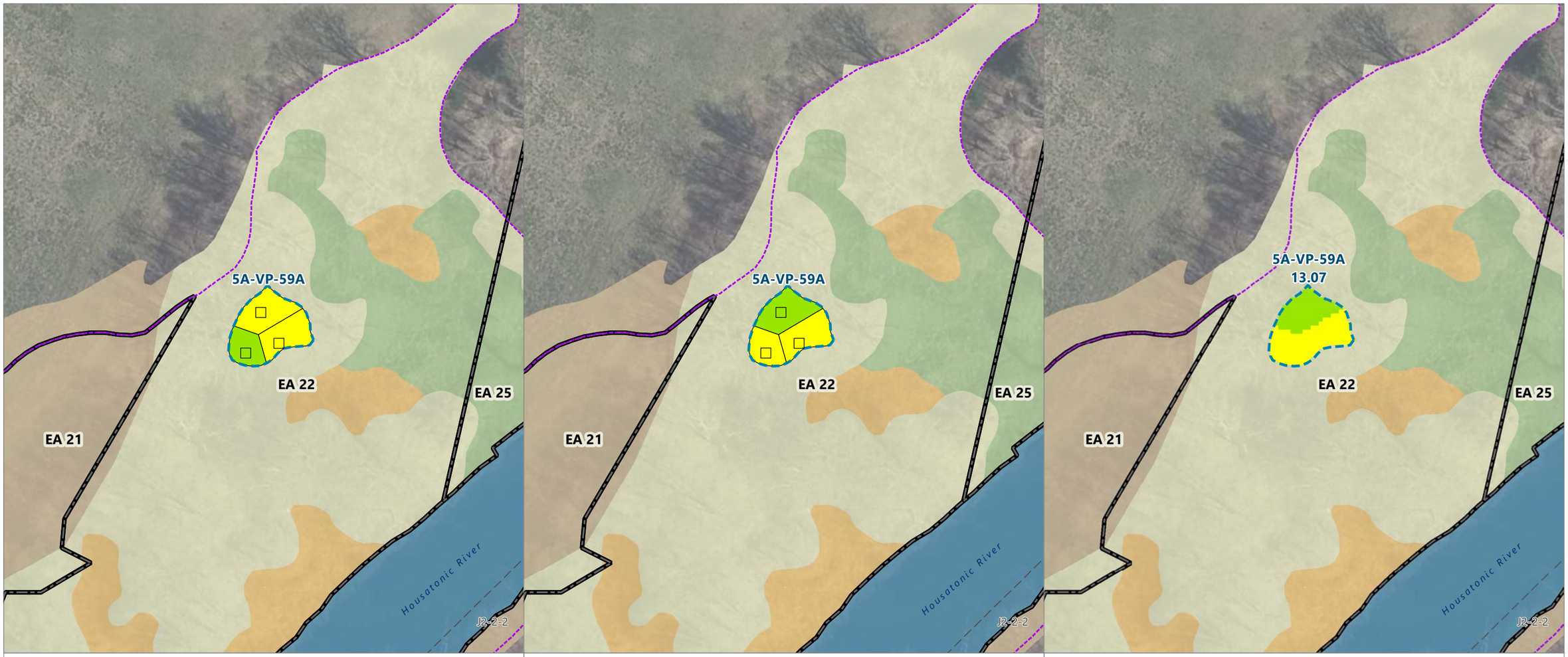
ANCHOR QEA

Figure A-1t
Vernal Pools in Exposure Area 22
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

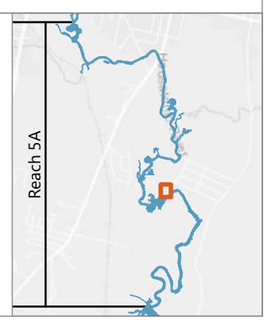
- Non-Residential PDI Sampling Locations (2022)

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 80
Feet



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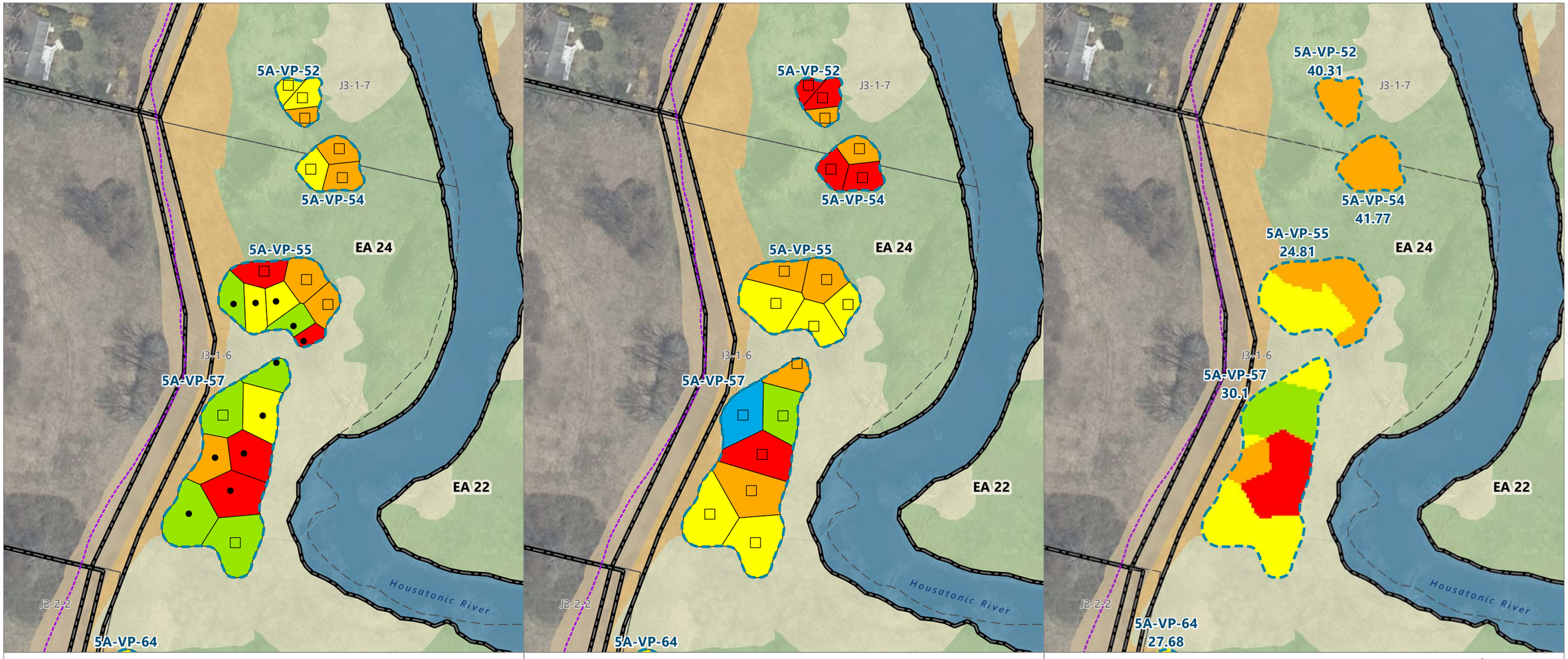
ANCHOR QEA

Figure A-1u
Vernal Pools in Exposure Area 22
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

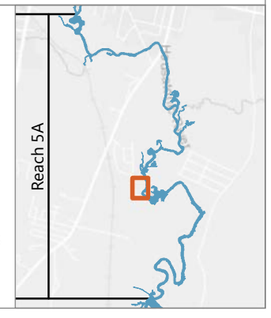
- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 125
Feet



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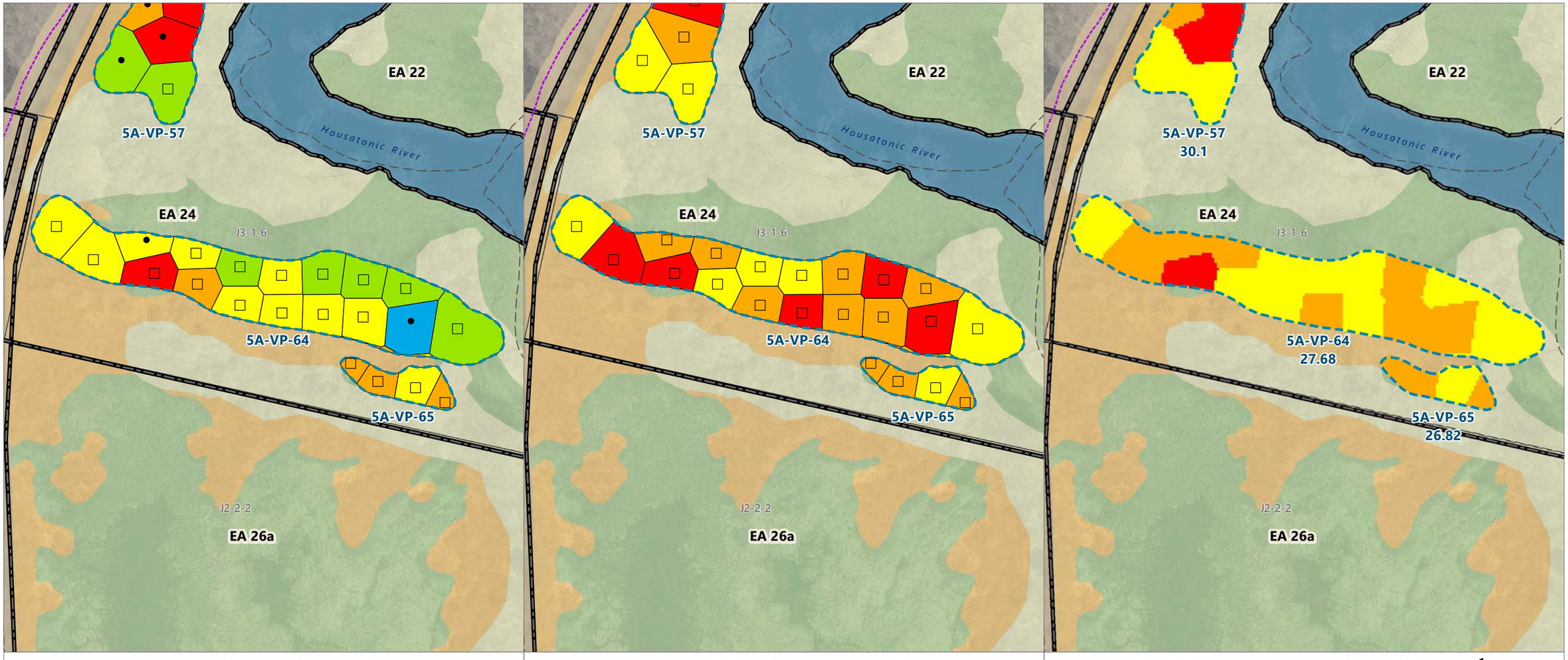
ANCHOR QEA

Figure A-1v
Vernal Pools in Exposure Area 24
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

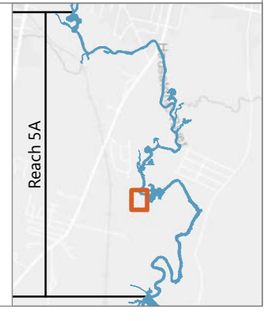
- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 125
Feet



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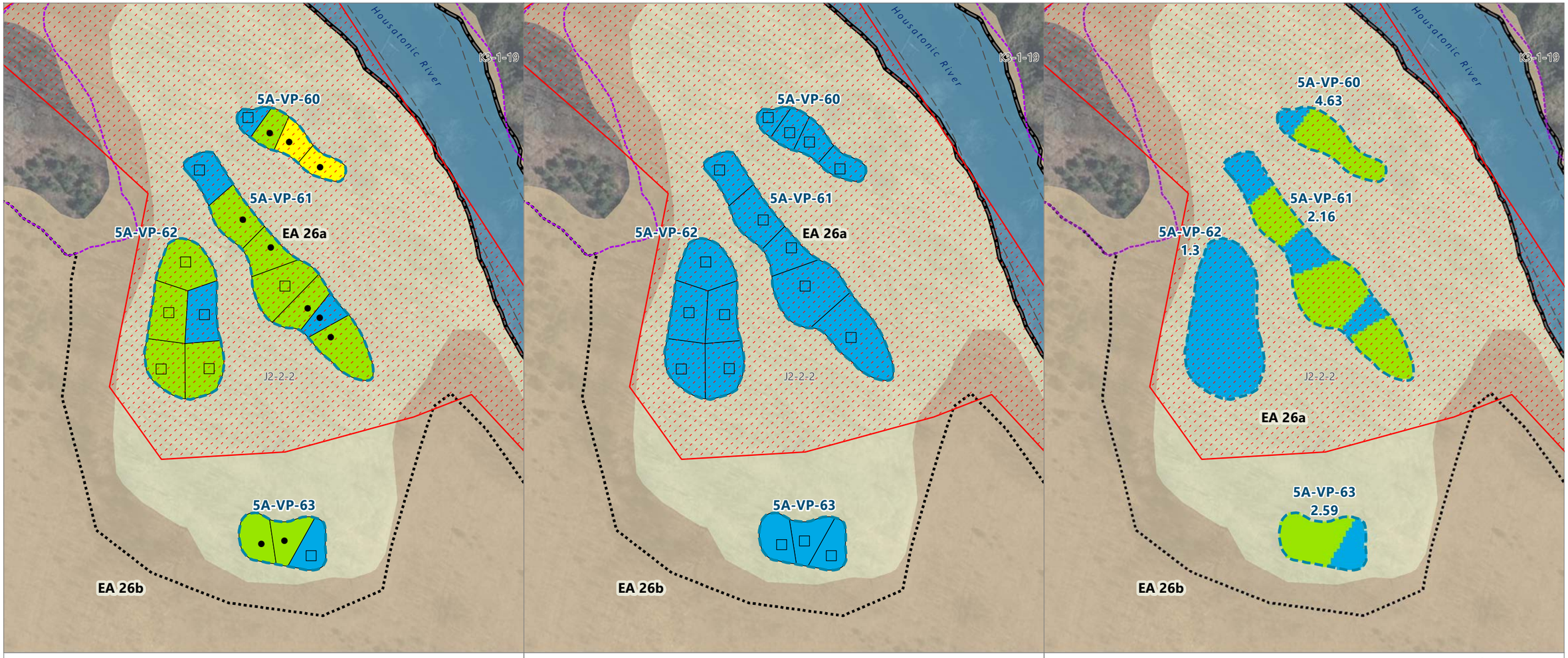
ANCHOR QEA

Figure A-1w
Vernal Pools in Exposure Area 24
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)
- Core Area 1 Habitat

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

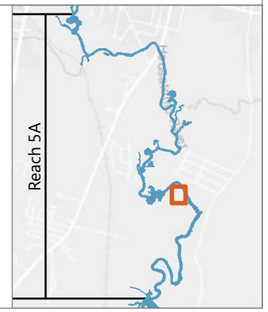
- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 100
Feet



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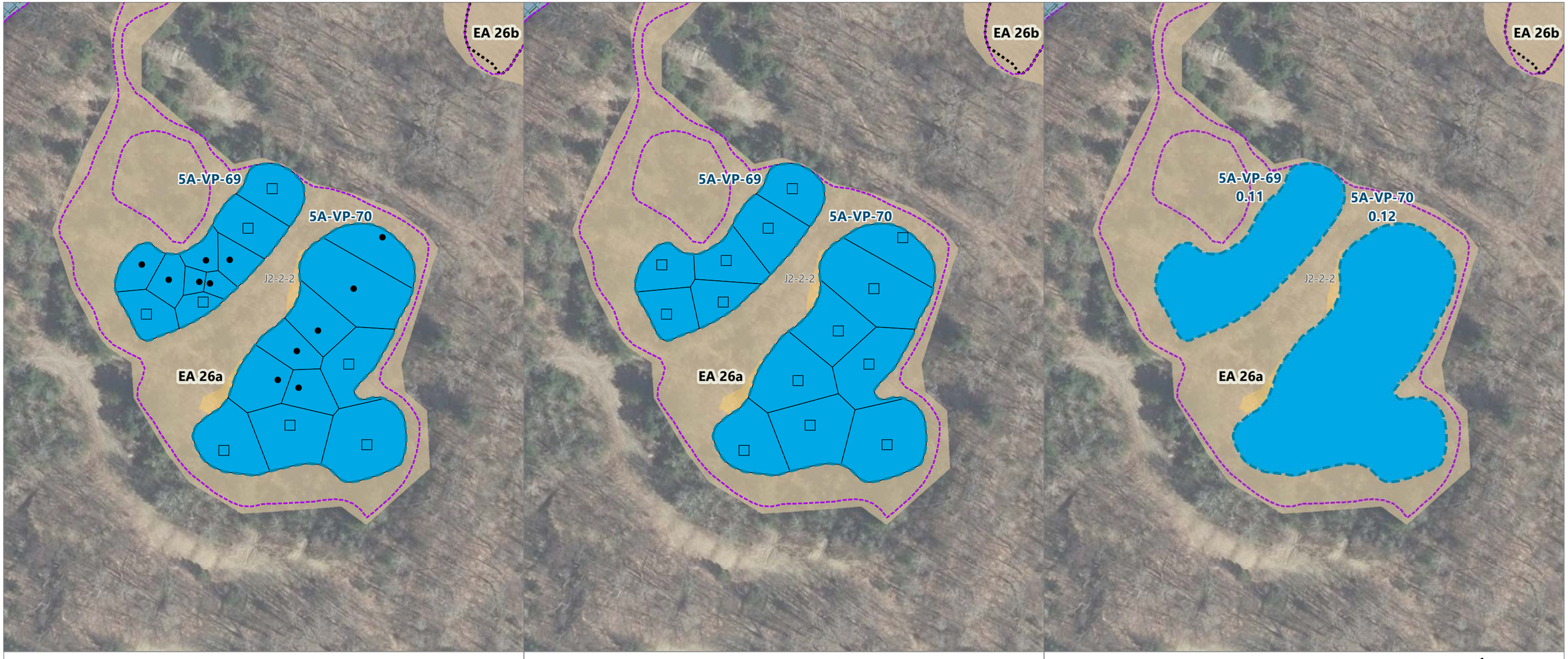
ANCHOR QEA

Figure A-1x
Vernal Pools in Exposure Area 26
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

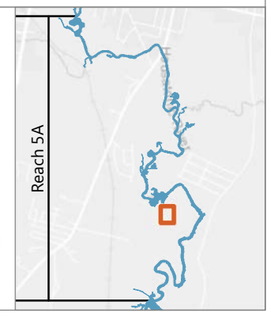
- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 100
Feet



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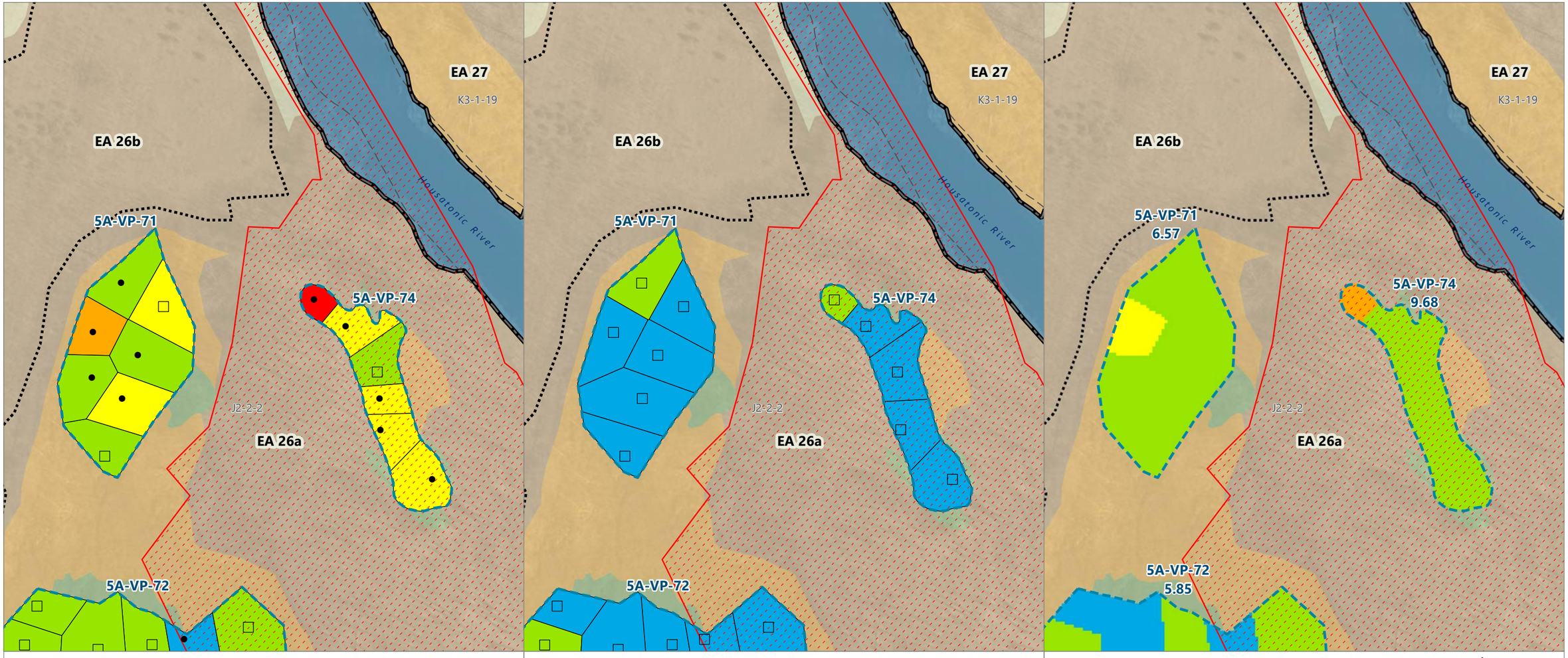
ANCHOR QEA

Figure A-1y
Vernal Pools in Exposure Area 26
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)
- Core Area 1 Habitat

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

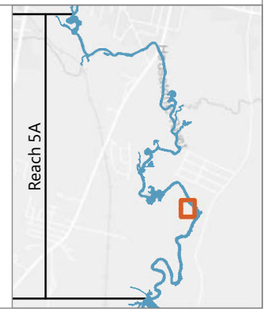
- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 100
Feet



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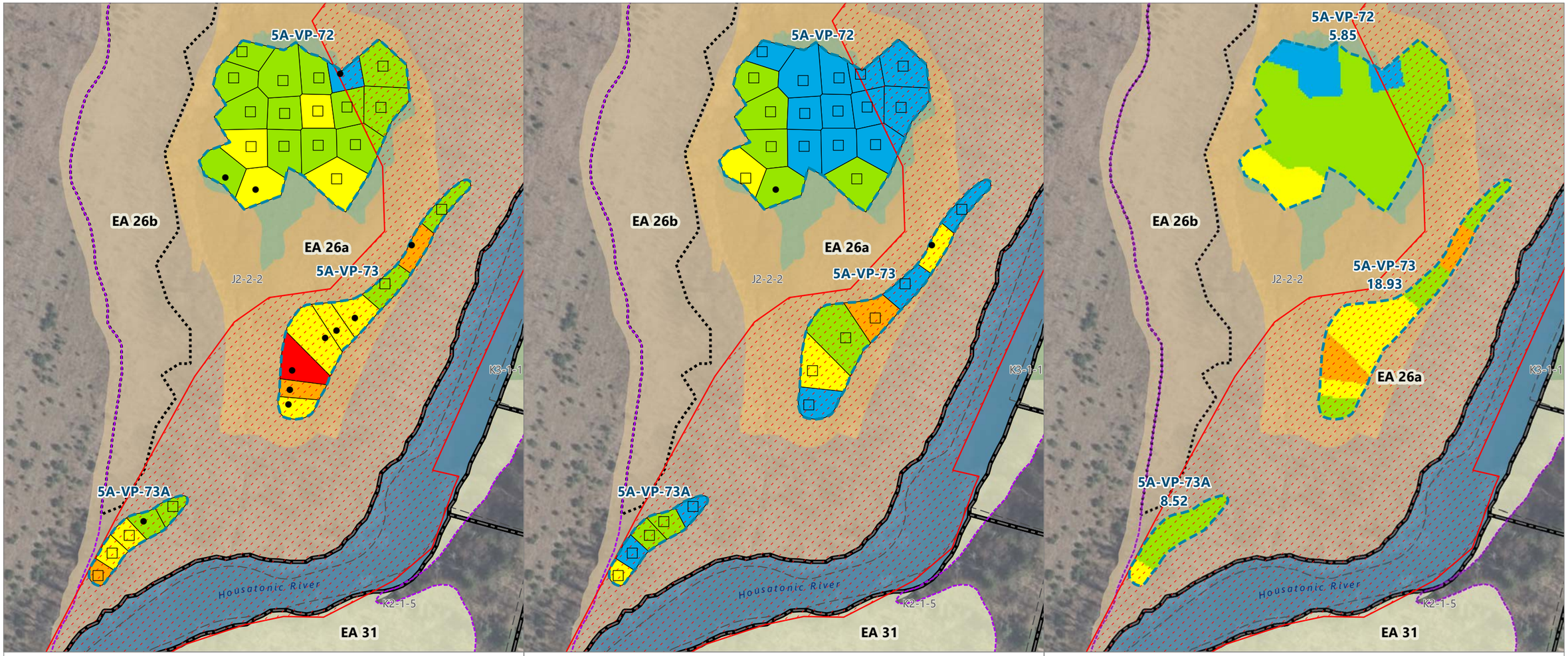
ANCHOR QEA

Figure A-1z
Vernal Pools in Exposure Area 26
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)
- Core Area 1 Habitat

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

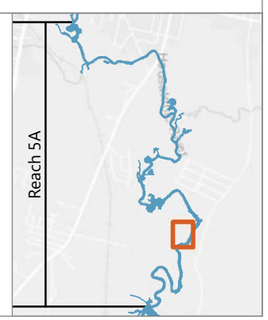
- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 150
Feet



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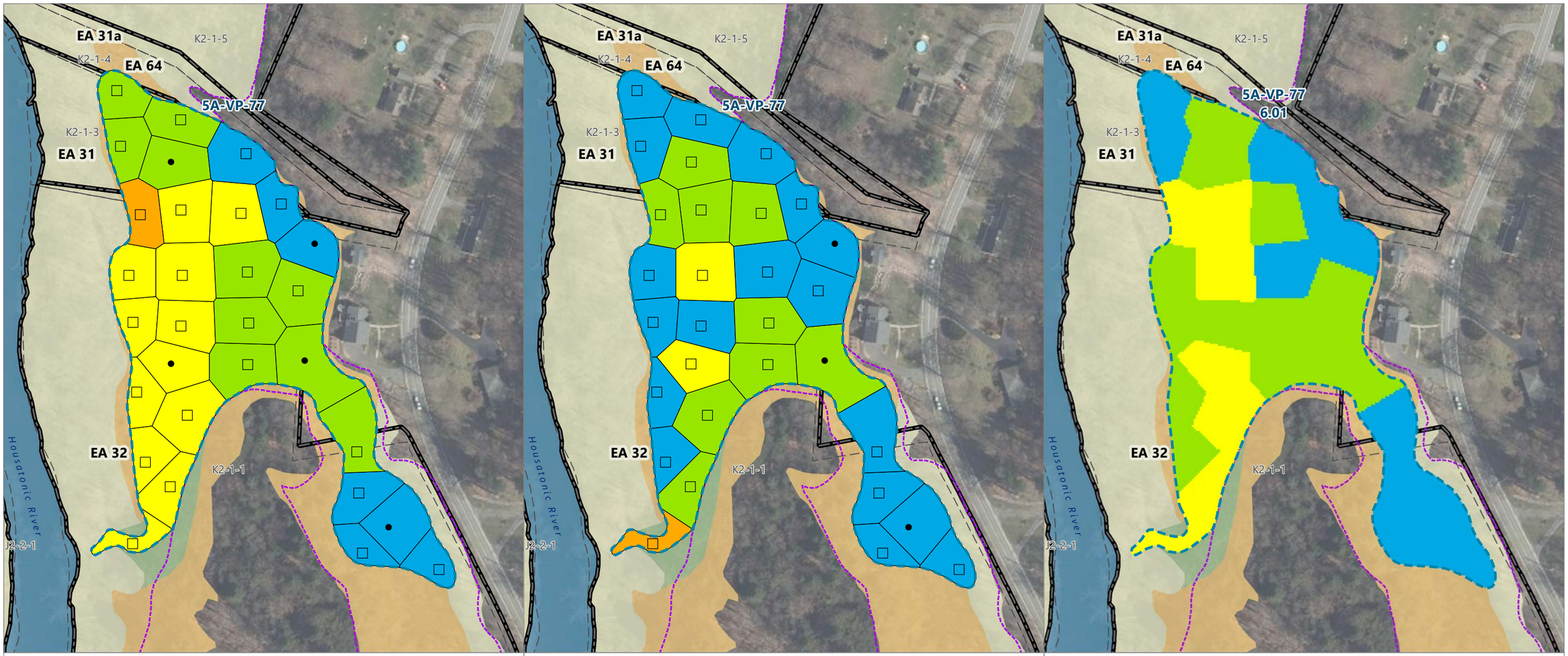
ANCHOR QEA

Figure A-1aa
Vernal Pools in Exposure Area 26
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

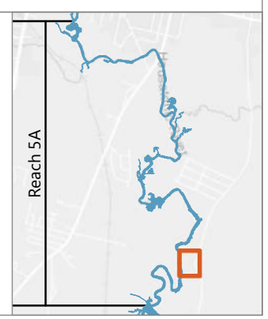
- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 150
Feet



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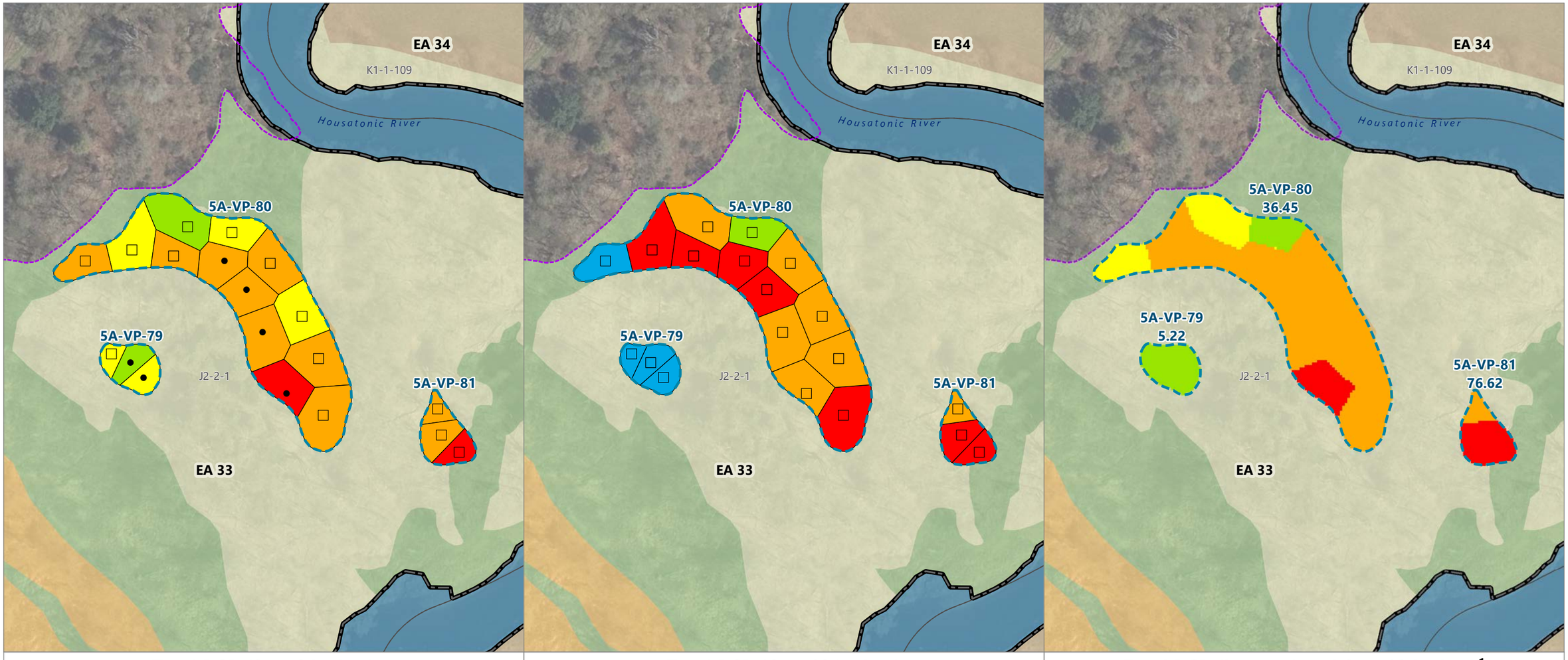
ANCHOR QEA

Figure A-1bb
Vernal Pool in Exposure Areas 31 and 32
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

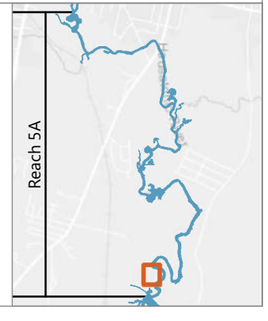
- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 130
Feet



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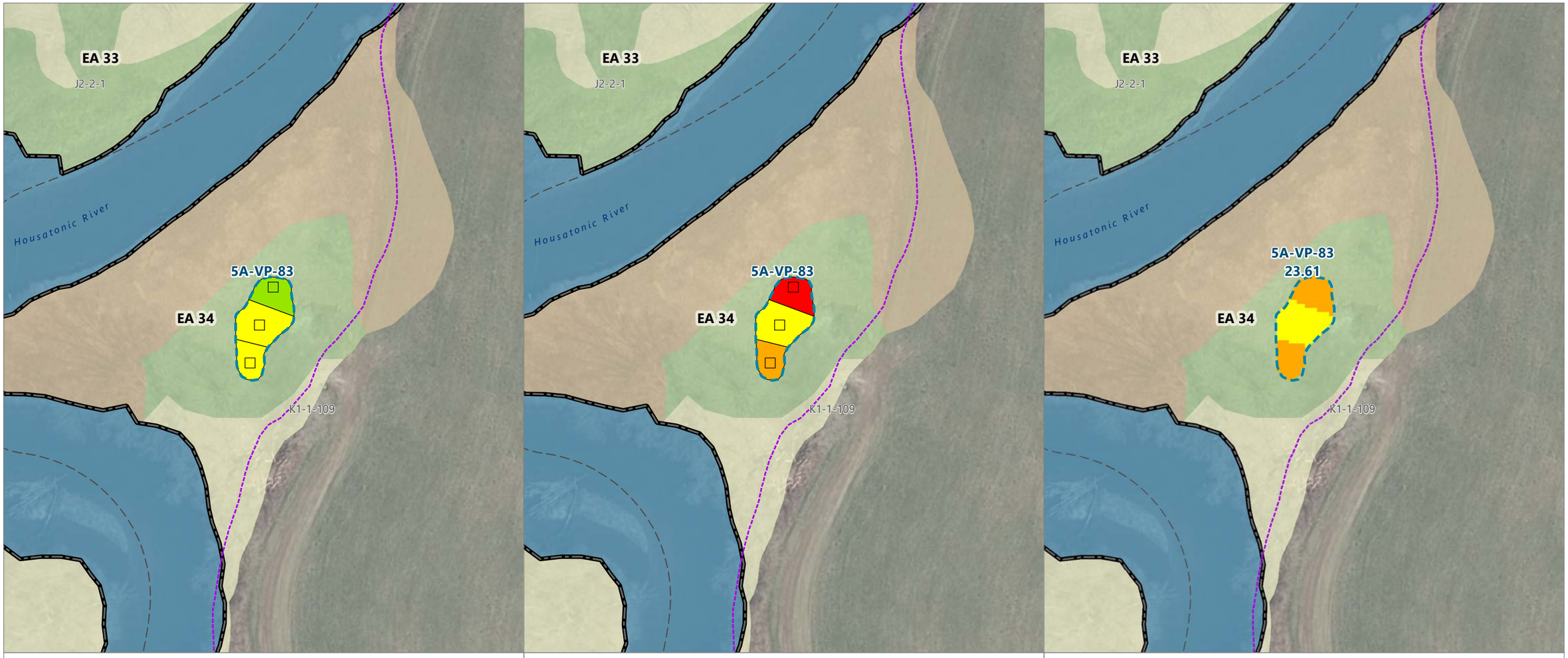
ANCHOR QEA

Figure A-1cc
Vernal Pools in Exposure Area 33
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

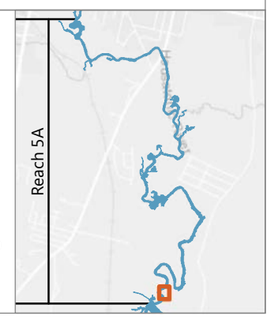
- Non-Residential PDI Sampling Locations (2022)

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. Aerial imagery from MassGIS 2021.

0 80
Feet



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Filepath: \\orcas\GIS\Jobs\GE_0469\HousatonicRiver\Maps\Reports\VernalPools\PilotStudy\WorkPlan\AQ_VPWP_FigA-1_VernalPoolThiessens.mxd

ANCHOR QEA

Figure A-1dd
Vernal Pool in Exposure Area 34
Vernal Pool Pilot Study Work Plan
Housatonic River – Rest of River

Appendix B
Bench-Scale Treatability Testing Summary Report

June 2025
GE-Pittsfield/Housatonic River Site

ANCHOR QEA

Bench-Scale Treatability Testing Summary Report

Prepared for General Electric Company

June 2025
GE-Pittsfield/Housatonic River Site

Bench-Scale Treatability Testing Summary Report

Prepared for
General Electric Company
1 Plastics Avenue
Pittsfield, Massachusetts 01201

Prepared by
Anchor QEA, Inc.
54 Genesee Street, Suite 100A
Camillus, New York 13031

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ATTACHMENTS

Attachment A Activated Carbon Specification Sheets
Attachment B Water Quality Monitoring Results
Attachment C Data Validation Summary Reports
Attachment D Analytical Data Summary Tables

ABBREVIATIONS

^{13}C	carbon-13
µg	microgram
µm	micrometer
AC	activated carbon
cm	centimeter
DO	dissolved oxygen
DQO	data quality objective
EGL	Environmental Geochemistry Laboratory
EPA	U.S. Environmental Protection Agency
f_e	fraction of equilibrium
g	gram
GAC	granular activated carbon
GE	General Electric Company
HPLC	high-performance liquid chromatography
K_{ow}	octanol-water partitioning coefficient
L	liter
mg/kg	milligrams per kilogram
PAC	powdered activated carbon
PCB	polychlorinated biphenyl
PDI	pre-design investigation
PDMS	polydimethylsiloxane
PRC	performance reference compound
PTFE	polytetrafluoroethylene
QA/QC	quality assurance/quality control
Revised Pilot Work Plan	*Revised Vernal Pool Pilot Study Work Plan*
rpm	revolutions per minute
SGS Dayton	SGS North America in Dayton, New Jersey
SGS Wilmington	SGS North America in Wilmington, North Carolina
SPME	solid-phase microextraction
TOC	total organic carbon

1 Introduction

On November 13, 2023, the General Electric Company (GE) submitted a *Revised Vernal Pool Pilot Study Work Plan* (Revised Pilot Work Plan; Anchor QEA 2023) that was subsequently approved by the U.S. Environmental Protection Agency (EPA) on December 5, 2023. That work plan presented the final experimental design for bench-scale testing that was conducted to understand the performance of carbon-based amendments in a simulated vernal pool environment. Specifically, the bench-scale testing was conducted to evaluate the effectiveness of three types of amendments—granular activated carbon (GAC), powdered activated carbon (PAC), and biochar—in reducing the bioavailability of polychlorinated biphenyls (PCBs) in soils collected from Housatonic River vernal pools. The testing was also performed to assess different amendment placement methods and to assess the effects of wetting and drying on the pools. The bench-scale testing was performed by the Anchor QEA, Inc. Environmental Geochemistry Laboratory (EGL) in Portland, Oregon, in accordance with Section 3.2 of the Revised Pilot Work Plan. This *Bench-Scale Treatability Testing Summary Report* has been prepared to summarize the results of that testing and is provided as an appendix to the *Final Revised Vernal Pool Pilot Study Work Plan* (Final Pilot Work Plan).

1.1 Bench-Scale Testing Purpose and Objectives

The specific data quality objectives (DQOs) for the bench-scale testing performed in support of the vernal pool field pilot study were as follows:

DQO 1: Provide data to evaluate the effectiveness of GAC, PAC, and biochar to sequester bioavailable PCBs in porewater in the soils.

DQO 2: Provide data to determine the minimum effective dose of activated carbon (AC) (consisting of GAC or PAC) or biochar needed to achieve the porewater performance criterion.

DQO 3: Compare the effectiveness of different placement methods, including thin-layer placement, amended cover placement (AC and sand mixture), and mixing.

DQO 4: Provide data to evaluate the time to achieve the porewater performance criterion.

Comparison of the effectiveness of amendments and the identification of a minimum effective dose (DQO 1 and DQO 2) were evaluated through bench-scale jar testing in which site soils were amended with GAC, PAC, or biochar at specific doses. The results of the jar tests were used to assess the achievement of the porewater performance criterion. The comparison of different placement methods (DQO 3) and the time required to achieve the porewater performance criterion (DQO 4) were evaluated using the bench-scale column tests (instead of jar tests) because these tests provide a means to simulate anticipated in situ conditions within the vernal pools, including the impact of drying and wetting on mass-transfer kinetics.

1.2 Report Organization

The remainder of this Summary Report is organized into the following sections:

- Section 2 describes sample collection and preparation for the bench-scale testing.
- Section 3 discusses the bench-scale testing design.
- Section 4 summarizes the laboratory data quality assessment, including quality assurance/quality control (QA/QC), data validation, and data completeness.
- Section 5 discusses procedures to calculate bioavailable PCB concentrations in porewater using a glass fiber coated with polydimethylsiloxane (PDMS)—i.e., solid-phase microextraction (SPME) fiber.
- Section 6 presents the results of the bench-scale jar and column testing.
- Section 7 provides a summary of the bench-scale results.

2 Soil Sample Collection and Selection for Bench-Scale Testing

2.1 Soil Sample Collection

As described in the Revised Pilot Work Plan, vernal pool soils to be used in the bench-scale testing were initially collected from the five vernal pools selected for amendment-based treatment (see Figures 2-1a through 2-1e). This initial soil sample collection was conducted during the week of October 30, 2023. At each of 10 locations targeted for sampling across the five pools (summarized in Table 2-1), a six-gallon bulk soil sample was collected from the 0- to 0.5-foot depth interval for potential use in the bench-scale testing. Sampling locations were identified and recorded using a differential global positioning system. These five vernal pools and soil sampling locations are listed in Table 2-1 and shown on Figures 2-1a through 2-1e. As shown in Table 2-1, soils were collected from two to three locations within each pool, except that only one location was sampled in 5A-VP-27.[1] After sample collection, all the soil samples were immediately shipped overnight to the EGL on ice in coolers. Upon arrival, rocks and wood debris were removed from the soil samples by gloved hands, and the samples were thoroughly homogenized using a paddle mixer. Following homogenization of each bulk soil sample, a sample aliquot was collected and shipped to the analytical laboratory (SGS North America in Dayton, New Jersey [SGS Dayton]) for analysis of PCB Aroclors (by EPA Method 8082) and total organic carbon (TOC) (by the Lloyd Kahn method). The PCB Aroclor and TOC results for these samples are summarized in Table 2-2.

It was determined that the PCB Aroclor concentrations in the 10 vernal pool soil samples collected above did not capture the full range of PCB concentrations observed in soil samples collected from those vernal pools during the pre-design investigation (PDI)—i.e., PCB concentrations in all 10 vernal pool soil samples were generally low and ranged from approximately 1 to 7 milligrams per kilogram (mg/kg). Therefore, to obtain soils with higher PCB concentrations for use in the bench-scale testing, GE remobilized during the week of December 11, 2023, to collect soils from an additional eight locations (including several locations in non-pilot pools) that exhibited some of the highest concentrations in the Reach 5A vernal pools during the PDI. These additional pools and soil sampling locations are listed in Table 2-1 and are shown on Figures 2-2a through 2-2d. During this second mobilization, a six-gallon bulk soil sample was collected from the 0- to 1-foot depth interval.[2] Samples were shipped overnight to the EGL and processed in the same manner as the samples collected during the first mobilization. The PCB Aroclor and TOC results for all samples collected are summarized in Table 2-2.

[1] It was decided to collect soils from two to three discrete locations in a pool to increase the likelihood of obtaining a wider range of PCB concentrations to be considered for the bench-scale study.

[2] During the second mobilization, soil samples were collected from the 0- to 1-foot depth interval (as compared to the 0- to 0.5-foot depth interval in the first mobilization) in an attempt to collect soils with higher PCB concentrations.

Table 2-1
Sampling Locations for Vernal Pool Soils

Vernal Pool ID	Sample ID[1]	Horizontal Coordinates		Sample Depth (feet)
		Latitude	Longitude	
First Mobilization (October 2023)				
5A-VP-9	VP9-X-Y-16-BST	42.4302	-73.2467	0 to 0.5
	VP9-X-14-BST	42.4302	-73.2471	
	VP9-V-W-14-BST	42.4304	-73.2471	
5A-VP-12	VP12-B-C-1/2-BST	42.4295	-73.2466	
	VP12-V-2/3-1-BST	42.4295	-73.2463	
5A-VP-15	VP15-H-12-BST	42.4300	-73.2435	
	VP15-I-15-BST	42.4298	-73.2431	
5A-VP-22	VP22-B-4-5-BST	42.4267	-73.2386	
	VP22-D-3-BST	42.4264	-73.2388	
5A-VP-27	VP27-F-5-BST	42.4241	-73.2900	
Second Mobilization (December 2023)				
5A-VP-9	VP9-X-Y-16-BST-2	42.4302	-73.2467	0 to 1
	VP9-X-14-BST-2	42.4302	-73.2471	
5A-VP-35	VP35-I-9-BST	42.4215	-73.2371	
	VP35-J-9-10-BST	42.4213	-73.2371	
5A-VP-40	VP40-Q-6-7-BST	42.4203	-73.2376	
	VP40-R-6-7-BST	42.4202	-73.2376	
5A-VP-81	VP81-G-10-11-BST	42.4056	-73.2383	
	VP81-G-11-BST	42.4055	-73.2382	

Note:

1. The soil samples were collected in three 2-gallon sample containers at each location for potential bench-scale testing.

Table 2-2
PCB Aroclors and TOC Concentrations in Vernal Pool Soils

Vernal Pool ID	Location ID	Total PCB Aroclors (mg/kg)	Total Organic Carbon (mg/kg)
First Mobilization (October 2023)			
5A-VP-9	VP9-X-Y-16-BST	4.97	46,100
	VP9-X-14-BST	2.21	41,100
	VP9-V-W-14-BST	3.60	39,200
5A-VP-12	VP12-B-C-1/2-BST	4.17	34,000
	VP12-V-2/3-1-BST	2.93	38,500
5A-VP-15	VP15-H-12-BST	5.43	38,500
	VP15-I-15-BST	6.85	47,900

Vernal Pool ID	Location ID	Total PCB Aroclors (mg/kg)	Total Organic Carbon (mg/kg)
5A-VP-22	VP22-B-4-5-BST	2.54	19,200
	VP22-D-3-BST	2.73	34,500
5A-VP-27	VP27-F-5-BST	1.16	28,800
Second Mobilization (December 2023)			
5A-VP-9	VP9-X-Y-16-BST-2	9.20	38,000
	VP9-X-14-BST-2	2.90	32,300
5A-VP-35	VP35-I-9-BST	10.0	32,300
	VP35-J-9-10-BST	15.0	28,500
5A-VP-40	VP40-Q-6-7-BST	8.00	38,800
	VP40-R-6-7-BST	4.20	22,200
5A-VP-81	VP81-G-10-11-BST	19.0	26,000
	VP81-G-11-BST	11.0	47,400

2.2 Sample Selection

The Revised Pilot Work Plan required that, following receipt of the PCB Aroclor analytical data, GE would submit to EPA a proposal regarding selection of soils to be used in the bench-scale testing. Accordingly, results of the soil samples described above were reviewed to select a low concentration and a high concentration sample for subsequent bench-scale testing. To facilitate that review, GE selected four candidate samples that covered a range of PCB Aroclor concentrations (locations VP81-G-10-11-BST, VP12-B-C-1/2-BST, VP9-X-Y-16-BST, and VP40-R-6-7-BST). A second sample aliquot (different from the aliquot collected for the original PCB Aroclor analysis) was collected from the homogenized soil mixture for each of those locations and was submitted to SGS North America in Wilmington, North Carolina (SGS Wilmington) for analysis of PCB congeners (by Method 1668C). The original PCB Aroclor results and the total PCB congener concentrations are summarized in Table 2-3 for those four samples.

As shown in Table 2-3, the total PCB congener concentrations in these four selected soil samples were somewhat inconsistent with the original PCB Aroclor concentrations in that the total PCB congener concentrations were considerably higher than the corresponding total PCB Aroclor results. Because the Aroclor and congener results were measured in separate sample aliquots obtained from the larger homogenized soil mixture at each location, GE wanted to determine whether the difference in concentration was due in part to heterogeneity in the samples (despite best efforts to completely homogenize each soil mixture). To that end, the unused portion of the second sample aliquot that was analyzed for PCB congeners by SGS Wilmington was shipped to SGS Dayton for analysis of PCB Aroclors. Total PCB Aroclor results for the second aliquot are summarized in Table 2-3.

Consistent with the total PCB congener concentrations, the total PCB Aroclor concentrations measured in the second aliquot were considerably higher than those measured in the first (with one exception at location VP81-G-10-11-BST). There is still an approximate 1.5x to 2x difference between the total PCB Aroclor and congener concentrations in the second aliquot; however, this difference is more in line with typical analytical differences between Aroclor and congener PCB analytical methods. As such, the larger difference in total PCB concentrations observed between the first and second aliquots was attributed to heterogeneity in the soil samples.[3]

Based on the results described above, GE selected soil samples VP81-G-10-11-BST and VP12-B-C-1/2-BST (hereafter referred to as VP81 and VP12, respectively) for use in the bench-scale testing. This selection was summarized in a proposal submitted to EPA on January 12, 2024. EPA subsequently approved that proposal on January 16, 2024.

Table 2-3
Comparison of Total PCB Concentrations in Soil Sample Aliquots

Location ID	Abbreviation	Selected for Bench-Scale Testing	Aliquot No. 1	Aliquot No. 2	
			Total PCB Aroclor (mg/kg)	Total PCB Congener (mg/kg)	Total PCB Aroclor (mg/kg)
VP81-G-10-11-BST	VP81	○	19.0	26.0	17.0
VP12-B-C-1/2-BST	VP12	○	4.17	34.0	23.0
VP9-X-Y-16-BST	VP9	—	4.97	30.0	16.0
VP40-R-6-7-BST	VP40	—	4.20	34.0	37.0

Notes:

—: not selected for bench-scale testing

○: selected for bench-scale testing

[3] Because of this observed heterogeneity, the design of the bench-scale testing was modified from that described in the Revised Pilot Work Plan to include additional measurements of baseline (i.e., pre-amendment) PCB concentrations in each test (see Sections 3.3.2 and 3.4.3).

3 Bench-Scale Testing Design

As described in Section 1.2, comparison of the effectiveness of various amendments, including effective doses and placement methods, were evaluated through bench-scale jar and column testing. This section describes the types of amendments that were evaluated and the methods used in the bench-scale jar and column testing.

3.1 Amendment Types

As described in the Revised Pilot Work Plan, three types of carbonaceous amendments (i.e., PAC, GAC, and activated biochar [biochar]) were used in the bench-scale testing. All three carbonaceous amendments were selected for jar testing to evaluate the amendment's ability to reduce the bioavailable concentrations of PCBs in vernal pool soils. For the column tests, a single amendment (PAC) was used to compare various application methods; PAC was chosen for the column testing of application methods because it provides faster uptake of contaminants than GAC (Shen et al. 2023; Zimmerman et al. 2005). Table 3-1 summarizes the specific amendments used in the testing and their vendor sources; specification sheets for each of these amendments are provided in Attachment A.

Table 3-1
Summary of Carbonaceous Amendments Used in Bench-Scale Testing

Amendment Type	Vendor/Source	Product Name	Particle Size (µm)	Bench-Scale Tests
PAC	Calgon Carbon	WPH	45.0-150	Jar and Column Tests
GAC	Calgon Carbon	FILTRASORB 400	500-750	Jar Tests
Biochar	Pacific Coast Carbon	PCC-BioCarbon	200-1,000	Jar Tests

SPME fibers were used in both jar and column tests to measure the freely dissolved PCB concentrations (C_{free}) in porewater. The SPME fibers are further described in Section 3.2, and calculations of C_{free} are further described in Section 5.

3.2 Preparation of SPME Fibers

SPME fibers to be used in the bench-scale testing were obtained from Polymicro Technologies, Inc., in Phoenix, Arizona (part number: 1068020213, product ID: FSS10001070), and consisted of a 1,000-micrometer (µm)-diameter inert glass core coated with 35 µm of PDMS. Prior to use, each of the SPME fibers were sequentially soaked in high-performance liquid chromatography (HPLC)-grade hexane, methanol, and deionized water in a glass tube on a shaker table to remove any potential contaminants that may interfere with subsequent analysis. Clean SPME fibers were then soaked in a methanol/water (80:20) mixture spiked with six performance reference compounds (PRCs) (i.e., ^{13}C-PCB-008, ^{13}C-PCB-031, ^{13}C-PCB-060, ^{13}C-PCB-085, ^{13}C-PCB-128, and ^{13}C-PCB-182) purchased from Cambridge Isotope Laboratories, Inc., in Tewksbury, Massachusetts, and were allowed to equilibrate for 14 days on a shaker table. Subsequently, all SPME fibers were removed

from the PRC solution and washed with HPLC-grade water to remove residual methanol. Four QA/QC and one method blank SPME fiber samples (eight 15 centimeters [cm] fibers for a total length of 120 cm per sample) were stored in EPA pre-cleaned vials and immediately sent to the analytical laboratory to measure the initial PRC concentrations for the initial setup of the column tests. Five QA/QC SPME fiber samples (five 10 cm fibers for a total length of 50 cm per sample) were stored in EPA-pre-cleaned vials and immediately sent to the laboratory to measure the initial PRC concentrations for the deployment of SPMEs into the baseline (i.e., pre-amendment) jar tests as well as the deployment of SPMEs into the amended jar tests.

3.3 Jar Testing

The bench-scale jar tests were performed to evaluate the effectiveness of PAC, GAC, and biochar in reducing bioavailable porewater PCB concentrations in vernal pool soils. Eight unique test batches were prepared for each of the two selected vernal pool soil samples (i.e., VP12 and VP81), as summarized in Table 3-2.

Table 3-2
Experimental Design for Bench-Scale Jar Tests

Vernal Pool ID	Test Batch (Amendment to Vernal Pool Soil)	Soil Mass (grams dry mass basis)	Amendment Mass (grams dry mass basis)	Number of Replicates
VP12	Control	250	0	2
	1% PAC	250	2.5	2
	2% PAC	250	5.0	2
	5% PAC	250	12.5	2
	2% GAC	250	5.0	2
	5% GAC	250	12.5	2
	5% Activated Biochar	250	12.5	2
	10% Activated Biochar	250	25.0	2
VP81	Control	250	0	2
	1% PAC	250	2.5	2
	2% PAC	250	5.0	2
	5% PAC	250	12.5	2
	2% GAC	250	5.0	2
	5% GAC	250	12.5	2
	5% Activated Biochar	250	12.5	2
	10% Activated Biochar	250	25.0	2

3.3.1 Soil Preparation

As described in Section 2.2, the vernal pool soils selected for testing were thoroughly homogenized. For the jar testing, deionized water was added to each soil sample prior to beginning the jar test to achieve 70% moisture content, allowing for slurry formation and good mixing during the testing. This was performed as a two-step process. First, 5.5 kg of soil (dry mass basis) was added to a large bucket and thoroughly mixed with deionized water using a paint mixer to achieve 50% moisture content. Second, the slurry was evenly distributed among 32-ounce EPA-pre-cleaned glass jars. Additional deionized water was added to each experimental jar to achieve the final moisture content of 70%. This two-step approach of slurry preparation was performed to improve sample workability and avoid small-scale heterogeneity of the vernal pool soils in the jar testing. The soil slurry formation and continuous mixing also serve to accelerate PCB mass-transfer kinetics and allow the PCB partitioning between the porewater and PDMS polymer of the SPME fibers to reach near-equilibrium conditions for all amendments tested in a timely manner (Ghosh et al. 2014).

3.3.2 Measurement of PCBs in Porewater

Due to the heterogeneity observed in the soil samples (described in Section 2.2), baseline (i.e., pre-amendment) bioavailable porewater PCB concentrations were measured in all soil slurry jars prior to adding the amendments to ensure that the PCB concentrations were consistent among the jars. On July 16, 2024, five 10-cm SPME fibers were encased in a stainless-steel mesh sleeve and deployed in each jar to measure baseline PCB concentrations. The jars were laid down and continuously mixed on an orbital shaker table at approximately 120 revolutions per minute (rpm) for 35 days to allow the porewater and PDMS polymer of the SPME fibers to equilibrate. Additionally, the soil slurry jars were occasionally turned over to aid in mixing. On August 20, 2024, the SPME fibers were retrieved from the jars, cleaned with HPLC-grade water and Kimwipes, and submitted to SGS Wilmington for PCB congener analysis.

Following the baseline testing described above, amendments were added to each jar on August 27, 2024, according to the quantities summarized in Table 3-2. Each amended jar was continuously agitated on an orbital shaker table at approximately 120 rpm through September 30, 2024, (34 days) to allow the soil and amendment to equilibrate prior to deployment of SPMEs in each of the jars. After this 34-day period, five 10 cm SPME fibers were encased in a stainless-steel mesh sleeve and deployed in each jar. The soil slurry jars with the SPME fibers were placed back on the orbital shaker table for another 30 days and were occasionally flipped to allow the porewater and PDMS polymer of the SPME fibers to equilibrate. On October 30, 2024, the SPME fibers were retrieved from the jars, cleaned with HPLC-grade water and Kimwipes, and submitted to SGS Wilmington for PCB congener analysis.

3.4 Column Testing

Bench-scale column testing was performed to evaluate the effectiveness of different amendment application methods at reducing porewater PCB concentrations and to assess their performance across a range of PCB concentrations in vernal pool soils. Furthermore, the column test design included simulation of drying and wetting cycles (an important hydrologic process in the vernal pools) to evaluate the effect of this process on PCB uptake by the amendment.

3.4.1 Column Design and Amendment Placement

Figure 3-1 provides a schematic of the column design and soil amendment placement. The vernal pool soils were packed in cylindrical glass columns approximately 60 cm tall by 10 cm wide, with a shape that gradually narrows towards an opening at the bottom of the column. The two vernal pool soils selected for testing (VP12 and VP81) were added into eight separate glass columns (four per soil sample). The bottom opening was sealed with a polytetrafluoroethylene (PTFE) cap, and a spigot was attached to the bottom PTFE cap to allow for drainage of water from the bottom of the columns to simulate the wetting and drying process. An approximately 2.5 cm layer of glass wool was placed above the PTFE cap at the bottom of the columns to prevent any loss of the media from the spigot. Above this layer, an approximately 2.5-cm layer of clean sand was added to facilitate water drainage and minimize clogging. The thickness of the soil and amendment layers varied depending on the amendment placement type, as summarized in Table 3-3. However, each column maintained a total soil and amendment layer depth of 40 cm. Synthetic freshwater was prepared in the laboratory for use in the column testing.[4] The synthetic freshwater was slowly added at the top of the columns to provide an overlying water depth of approximately 10 cm, while leaving approximately 3 cm of headspace. The tops of the columns were covered with parafilm and aluminum foil and a large mylar bag was placed over the entire column to prevent photodegradation of PCBs. A photograph of the fully assembled columns is provided on Figure 3-2.

[4] Synthesized freshwater for this testing targeted composition of freshwater rivers in North America similar to those presented in Sugiyama et al. (2016).

Table 3-3
Amendment Application Types for Vernal Pool Bench-Scale Column Tests

Application Type	Amendment Layer Type	Amendment + Soil Layer by Dry Mass (%)	Amendment Layer Depth (cm)	Soil Layer Depth (cm)	Total Amendment + Soil Layer Depth (cm)
Control	No amendment	0% PAC, 100% Soil	0	40	40
Thin-Layer Placement	PAC	5% PAC, 95% Soil	1.5	38.5	
Amended Sand Cover Placement[1]	PAC + Sand	5% PAC, 95% Sand	15	25	
Direct Mixing	PAC + Soil	5% PAC, 95% Soil	15	25	

Note:

1. The bulk density of the amended sand (i.e., the blend of 50% PAC and 50% sand by weight) was measured using a graduated cylinder. Briefly, the blend was prepared and transferred into a 100-milliliter graduated cylinder using a stainless-steel spatula, then gently tapped to allow for compaction. The measured bulk density of the amended sand was 32 pounds per cubic foot.

3.4.2 Monitoring of Overlying Water Quality

As described above, synthetic freshwater was added to the columns to simulate periods when the vernal pools are inundated (i.e., wet cycle). Following the addition of water, water quality parameters (i.e., temperature, pH, dissolved oxygen [DO], hardness [as mg per liter (L) $CaCO_3$], and total alkalinity) were immediately measured to establish baseline conditions. Thereafter, water quality parameters in the overlying water were measured weekly. Temperature, pH, DO, and hardness were measured directly in the columns using a probe; total alkalinity was measured by collecting a sample and using a test kit obtained from Hach Company (Loveland, Colorado). Any unused water that was extracted for testing was returned to its respective column. Water quality measurement results are provided in Attachment B.

3.4.3 Column Test Procedures and Measurement of PCBs in Porewater

Prior to application of the amendments in the VP81 columns, baseline porewater PCB measurements were made in all columns.[5] For the baseline measurements, SPME fibers were deployed into the unamended soils,[6] allowed to equilibrate for approximately 30 days, and then retrieved and sent to SGS Wilmington for congener PCB analysis. Subsequent to collection of those baseline measurements, the amendment layers were placed in the VP81 columns in accordance with Table 3-3 (and as shown on Figure 3-1). Testing in the eight columns was performed according to the schedule described in the Revised Pilot Work Plan, which began with a wet cycle in which the

[5] Baseline (pre-treatment) porewater PCB measurements could not be collected from the VP12 columns because amendments had already been placed in those columns (according to Table 3-3) prior to the decision to collect pre-treatment baseline measurements in all columns.

[6] SPME deployment in the columns for all testing (baseline and after placement of amendments) included placement of eight 15 cm fibers in each column).

columns were saturated with water (as described in Section 3.4.1), followed by a drained (dry) cycle during which the overlying water was drained from the columns,[7] and then another wet cycle in which fresh synthetic freshwater was added back into the columns. At the start of each cycle, the columns were equilibrated for approximately 30 days, after which SPME fibers were deployed for approximately 30 days to measure bioavailable PCB concentrations in porewater within the top 15-cm of the columns. The experimental design of the bench-scale column testing is presented in Table 3-4.[8]

Table 3-4
Experimental Design for Vernal Pool Bench-Scale Column Tests After Placement of Amendments

Vernal Pool ID	Test Condition	Dates	Duration (Days)	Days After Column Construction	Performed Weekly Water Quality Monitoring?	Notes
VP12	First Wet Cycle	02/08/24 – 03/11/24	32	0–32	Yes	Column equilibration period
		03/11/24 – 04/16/24	36	32–68	Yes	SPMEs deployed in columns
	First Dry Cycle	04/16/24 – 05/15/24	29	68–97	No	Water drained from columns; column equilibration period
		05/15/24 – 06/17/24	33	97–130	No	SPMEs deployed in columns
	Second Wet Cycle	06/17/24 – 07/17/24	30	130–160	Yes	Water added to columns; column equilibration period
		07/17/24 – 08/19/24	33	160–193	Yes	SPMEs deployed in columns
VP81	First Wet Cycle	03/26/24 – 4/24/24	29	0–29	Yes	Column equilibration period
		04/24/24 – 05/28/24	34	29–63	Yes	SPMEs deployed in columns
	First Dry Cycle	05/28/24 – 06/27/24	30	63–93	No	Water drained from columns; column equilibration period
		06/27/24 – 07/29/24	32	93–125	No	SPMEs deployed in columns

[7] During the drained cycle, the port at the bottom of the columns was opened and the columns were allowed to drain and equilibrate for approximately 30 days. Soils in the columns still remained relatively moist during this period, but no overlying water remained in the columns.

[8] The study design described in the approved Revised Pilot Work Plan included two wet cycles and one dry cycle, as discussed above. However, following receipt of the column testing data for those three cycles, GE opted to perform testing during a second dry cycle. The results are not yet available, but will be provided to EPA, when received, in GE's monthly progress report.

Vernal Pool ID	Test Condition	Dates	Duration (Days)	Days After Column Construction	Performed Weekly Water Quality Monitoring?	Notes
	Second Wet Cycle	07/29/24 – 08/29/24	31	125–156	Yes	Water added to columns; column equilibration period
		08/29/24 – 10/01/24	33	156–189	Yes	SPMEs deployed in columns

4 Laboratory Data Quality Assessment

4.1 Quality Assurance/Quality Control

A method blank, PRC-loaded SPME passive sampler reproducibility standards, and laboratory duplicates were prepared to assess the data quality of the SPME passive sampling in both the column and the jar tests. Details of these QA/QC samples are summarized as follows:

- **Method blank:** A method blank was used to assess whether any background contamination was introduced to the SPME fibers during cutting and cleaning. The method blank was cut and cleaned with the other SPME fibers, then wrapped with aluminum foil, and stored in an air-tight mylar bag in a freezer until the other SPME fibers were deployed in the columns. It was shipped alongside the PRC-loaded SPME passive sampler reproducibility standards to SGS Wilmington for analysis. The total PCB concentration on the method blank was 100 picograms per milligram of PDMS polymer, which is much lower than the total PCB concentrations detected in the deployed SPME fibers.
- **PRC-loaded SPME passive sampler reproducibility standards:** The QA/QC samples were used to assess variability in the initial PRC concentrations. A coefficient of variation less than 20% is the recommended criterion for acceptable variability of the initial PRC concentrations (ESTCP 2021). Because there were multiple rounds of SPME passive sampling in both the column and jar tests, multiple sets of QA/QC samples were submitted for analysis at different times. The variability of PRC concentrations in the QA/QC samples used in the column testing and jar testing was as follows:
  - **Column testing:** Prior to deployment in the columns, the PRC-spiked SPME fibers were kept in the PRC-spiking solution at all time to maintain PRC concentrations within the fibers. Four QA/QC samples were collected on February 26, 2024, and sent for analysis prior to the first SPME deployment in the columns. After that, one QA/QC sample was submitted with each subsequent SPME deployment to confirm that the PRC concentrations in the PRC-spiked SPME fibers did not change over time. A total of 10 QA/QC samples were sent for analysis over the course of the column testing. Among these 10 QA/QC samples, the coefficient of variation for the six PRCs ranged from 9.1% to 17.3%, which is below the recommended criterion of 20%, indicating good quality control.
  - **Jar testing:** Five QA/QC samples were collected on July 16, 2024, and sent for analysis prior to the baseline measurements performed for the jar testing. Among these five samples, the coefficients of variation for the six PRCs ranged from 3.7% to 9.8%. Another set of five QA/QC samples was collected on September 30, 2024, and sent for analysis. The coefficients of variation for the second set ranged from 1.0% to 8.3%.

These results indicate good quality control of the PRC spiking on the SPME fibers used for the jar testing.

- **Laboratory duplicates:** A laboratory duplicate is a sample that is prepared and handled identically to a "parent" sample and is used to measure variability in sample preparation at the EGL. Additional laboratory duplicate samples were prepared by the analytical laboratory (SGS Wilmington); the duplicates prepared by the analytical laboratory are provided in the data validation report referenced in Section 4.2.
  - **Column testing:** Porewater PCB measurements collected over time in the control columns and baseline (pre-treatment) measurements allow for evaluation of analytical reproducibility. Baseline measurements collected from the four VP81 columns show that initial dissolved total PCB concentrations among the four columns had a coefficient of variation of approximately 1.7%. Coefficients of variation in the unamended control columns for VP81 and VP12 were approximately 1.6% and 1.6%, respectively.
  - **Jar testing:** All jar testing samples were prepared and run in duplicate, but only the jar testing control samples were used for evaluation of reproducibility. The control jars for VP81 and VP12 had relative percent differences of approximately 7.3% and 3.7% in their control replicates, respectively.

4.2 Data Validation

Following receipt of the soil and SPME analytical results (initial characterization, jar testing, and column testing), the PCB data were subject to data review and validation in accordance with GE's 2023 *Field Sampling Plan/Quality Assurance Project Plan* (Arcadis 2023). This included validation of all data to a Tier I level and validation of a minimum of 25% of the data to a Tier II level. The data validation results are presented in reports provided in Attachment C. As summarized in Attachment C, more than 99% of the bench-scale testing data are considered usable. A tabular summary of all validated data is provided in Attachment D.

5 SPME Data Analysis

Freely dissolved PCB concentrations in sediment porewater can be calculated by dividing the PCB concentrations measured on the SPME fibers after deployment by the PDMS-water partitioning coefficient and the fraction of equilibrium achieved within the SPME fiber, as shown in Equation 1.

Equation 1

$$C_d = \frac{C_{PDMS}}{K_{PDMS-W} \times f_e}$$

where:

C_d	=	concentration in porewater (µg/L)
C_{PDMS}	=	concentration in PDMS polymer (µg/kg)
K_{PDMS-W}	=	PDMS-water partitioning coefficient (L/kg)
f_e	=	fraction of equilibrium (unitless)

A regression was developed between measured PDMS-water partitioning coefficient (K_{PDMS-W}) values and published octanol-water partitioning coefficient (K_{OW}) values based on data provided for PCBs in Smedes et al. (2009) (Equation 2). The selected PCB congeners provided in Smedes et al. (2009) have log K_{PDMS-W}-log K_{OW} pairs that, when plotted, line up consistently and are well correlated (R^2= 0.913). By incorporating PCB congeners that span the range of K_{OW} values, the regression is more robust and can be used for all PCB congeners. Using this regression equation, the $K_{PDMS-water}$ value for each PCB was calculated based on the K_{OW} value of the compound. The log K_{OW} of PCBs are obtained from Hawker and Connell (1988) and were adjusted based on the K_{OW} values measured by De Bruijn et al. (1989) with a slow stirring method, which is generally considered to be a more reliable method for K_{OW} values (OECD 2006).

Equation 2

$$\log K_{PDMS-W} = 0.903 \times \log K_{ow} - 0.159 \qquad (r^2 = 0.937)$$

where:

K_{PDMS-W}	=	PDMS-water partitioning coefficient
K_{OW}	=	Octanol-water partitioning coefficient

The fraction of equilibrium (f_e) of each PRC was calculated using the ratio of the final concentration (i.e., following deployment) to its initial concentration (i.e., prior to deployment), as shown in Equation 3.

Equation 3

$$f_e = 1 - \frac{C_{PRC,final}}{C_{PRC,init}}$$

where:

f_e	=	fraction of equilibrium
$C_{PRC,final}$	=	final PRC concentration in SPME fiber (µg/kg)
$C_{PRC,init}$	=	initial PRC concentration in SPME fiber (µg/kg)

Subsequently, the calculated f_e values of the PRCs were incorporated into the mathematical models to estimate the f_e values of the target chemicals (Lampert et al. 2015; Borrelli et al. 2018). The freely dissolved concentrations of PCBs in sediment porewater were estimated from the measured concentrations sorbed to the SPME fiber and the SPME-water partition coefficient and the f_e.

6 Results

6.1 Jar Testing

Freely dissolved porewater total PCB concentrations measured in all jars are summarized in Table 6-1 and shown on Figure 6-1 (for VP12) and Figure 6-2 (for VP81). The baseline (pre-treatment) total PCB concentrations in porewater from all jars were well above the porewater performance criterion of 40 ng/L. The concentrations showed some variability among jars despite best efforts to thoroughly homogenize the samples prior to testing, likely due to small-scale sample heterogeneity. Nonetheless, the baseline total PCB porewater concentrations were sufficiently high to evaluate the effectiveness of the amendments at various doses.

Jars amended with PAC achieved the porewater performance criterion of 40 ng/L at all doses tested (i.e., 1%, 2%, and 5%). Jars amended with GAC treatment achieved that target at a dose of 5% but not 2%. The jars amended with activated biochar achieved the target at a dose of 10% but not 5%. Among these treatments, PAC was able to reduce the freely dissolved porewater total PCB concentration to an acceptable level at the lowest dose.

Table 6-1
Freely Dissolved Concentrations of Total PCB Congeners in Jar Testing

Vernal Pool Soil	Amendment	Total PCB Congeners (ng/L)		% Reduction
		Baseline	Post-Amendment	
VP12	Control	502 (23)	446 (11)	—
	1% PAC	547 (38)	12.6 (0.7)	97.7 (0)
	2% PAC	539 (17)	2.93 (0.2)	99.5 (0.1)
	5% PAC	557 (18)	0.57 (0.02)	99.9 (0)
	2% GAC	584 (8)	41.9 (2.5)	92.8 (0.5)
	5% GAC	556 (1)	6.03 (1.41)	98.9 (0.3)
	5% Activated Biochar	392 (187)	59.5 (0.1)	82.8 (8.3)
	10% Activated Biochar	464 (13)	13.1 (1.4)	97.2 (0.4)
VP81	Control	251 (9)	392 (21)	—
	1% PAC	294 (19)	15.8 (0.8)	94.6 (0.1)
	2% PAC	431 (165)	2.85 (0.64)	99.3 (0.1)
	5% PAC	408 (180)	0.51 (0.08)	99.9 (0)
	2% GAC	244 (25)	99 (42.5)	58.3 (21.8)
	5% GAC	286 (23)	17.6 (3.9)	93.9 (0.9)
	5% Activated Biochar	236 (42)	54.6 (3.7)	76.3 (5.8)
	10% Activated Biochar	284 (29)	15.6 (2.5)	94.5 (0.3)

Note:
The values presented are the average of two replicates for each jar, and values in parentheses represent the standard deviation.

6.2 Column Testing Results

Freely dissolved porewater total PCBs concentrations measured in the top 15 cm of all columns during each cycle are summarized in Table 6-2 and shown on Figure 6-3 (for VP12) and Figure 6-4 (for VP81). As described in Section 3.3.4, baseline (pre-treatment) PCB concentrations were measured in each of the VP81 columns, but this baseline sampling could not be performed in the VP12 columns. The total PCB concentrations in porewater in the control columns remained well above the porewater performance criterion of 40 ng/L in all cycles, although the results were somewhat variable, ranging from 206 to 391 ng/L in the VP12 soil and from 163 to 380 ng/L in the VP81 soil. All three placement methods resulted in reductions well below the 40 ng/L performance criterion. Among them, the amended sand cover placement achieved the largest reduction in porewater PCB concentration. This result is not surprising given that measurements of porewater PCB concentrations were entirely within the amended sand cover layer. The column that included direct mixing of PAC with vernal pool soil was the next best-performing method, followed by thin-layer placement. Thin-layer placement of 5% PAC met the performance criterion in all cases except in the first dry cycle in the VP12 soil, where the concentration was marginally above the 40 ng/L criterion.

Table 6-2
Freely Dissolved Concentrations of Total PCB Congeners in Porewater at the Top 15 cm of the Columns

Soil	Amendment Type	Total PCB Concentration in Porewater (ng/L)			
		Baseline	1st Wet Cycle	1st Drained (Dry) Cycle	2nd Wet Cycle
VP12	Control	—	289	206	391
	Thin-Layer Placement	—	6.00	40.1	21.6
	Amended Sand Cover Placement	—	0.0850	0.0230	0.0493
	Direct Mixing	—	0.681	8.38	2.73
VP81	Control	206	163	189	380
	Thin-Layer Placement	165	9.69	8.01	13.1
	Amended Sand Cover Placement	158	0.140	0.0300	0.459
	Direct Mixing	164	0.454	6.16	4.30

Notes:
The remediation target was set to 40 ng/L in the top 15 cm of porewater.
Non-detects are excluded from the sum (i.e., U qualifier was treated as zero).

Results of water quality measurements (i.e., temperature, pH, DO, hardness, and total alkalinity) collected from the overlying water during the column testing (presented in Attachment C) showed little variability across all columns and test cycles. This suggests that PAC placement at a dose of 5% is expected to have little impact on vernal pool water quality.

7 Summary

As described in Section 1.2, comparison of the effectiveness of amendments and the identification of a minimum effective dose (DQO 1 and DQO 2) were evaluated through bench-scale jar testing in which site soils were amended with GAC, PAC, or biochar at various doses. The biochar amendment did not reduce freely dissolved total PCB concentrations in the vernal pool soils as effectively as PAC or GAC when compared at an equivalent dose of 5% by weight (Section 6.2). Therefore, biochar was eliminated from further consideration as a potential amendment in the vernal pools. Between PAC and GAC, the minimum effective dose required to achieve the porewater performance criterion of 40 ng/L was lower for PAC. Specifically, PAC was able to achieve this criterion at a minimum dose of 1%, whereas GAC would require a higher dose of up to 5%.

The effectiveness of different amendment placement methods (DQO 3) and the time required to achieve the porewater performance criterion (DQO 4) were evaluated through the bench-scale column tests. The column test results demonstrated that all placement methods, including thin-layer placement on the surface of the columns, resulted in reducing the freely dissolved porewater total PCB concentrations below the porewater performance criterion of 40 ng/L (to a depth of 15 cm) within two months after placement.

8 References

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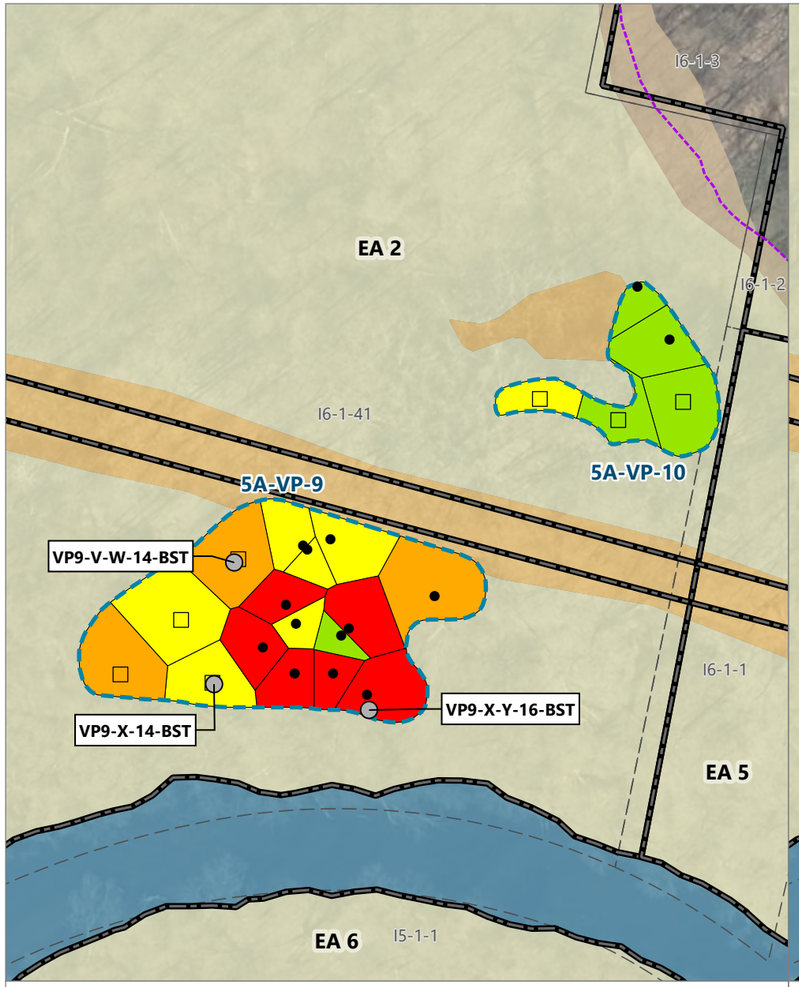
Figures



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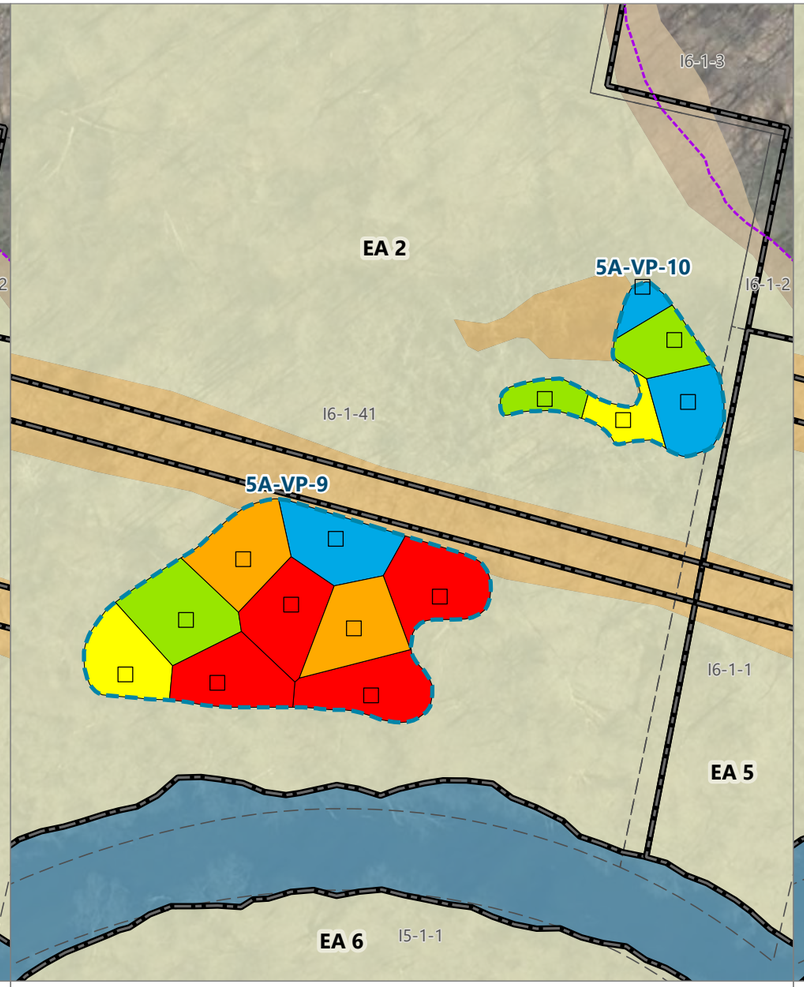

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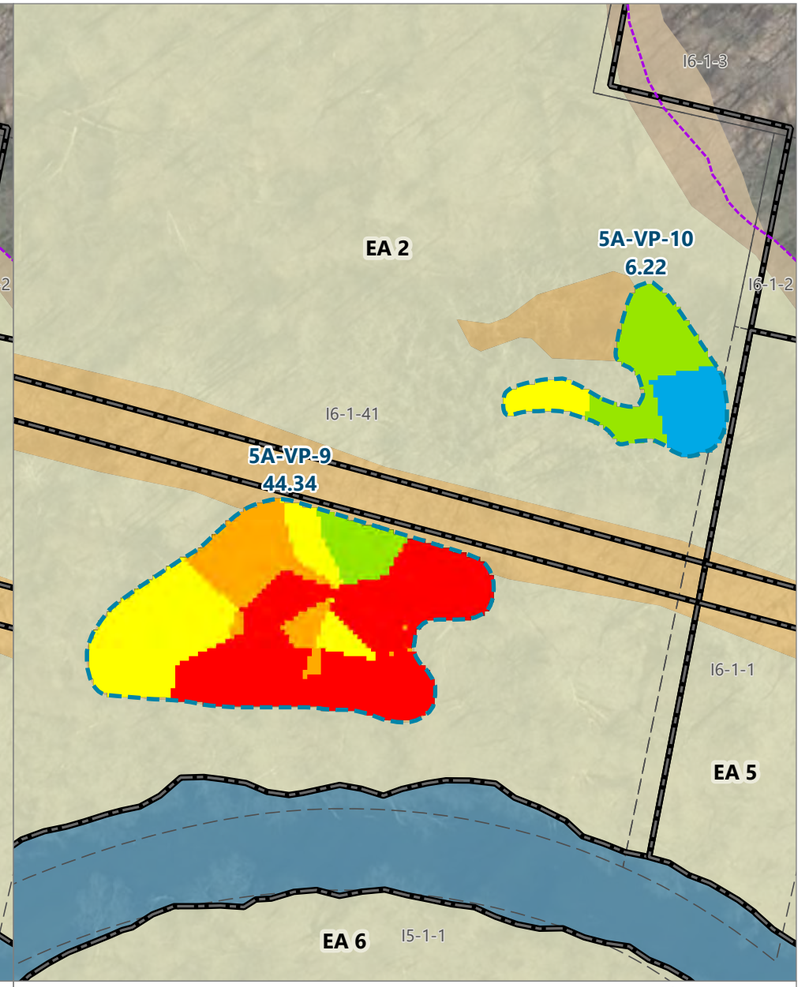


Total PCB (Interpolated 0 to 12 inches)[1]

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

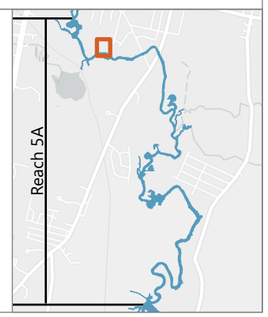
- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations
- Vernal Pool Bench-Scale Testing Sampling Location

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCB concentration color coding excludes results from 2024 baseline monitoring.
3. Aerial imagery from MassGIS 2023.

0 100
Feet



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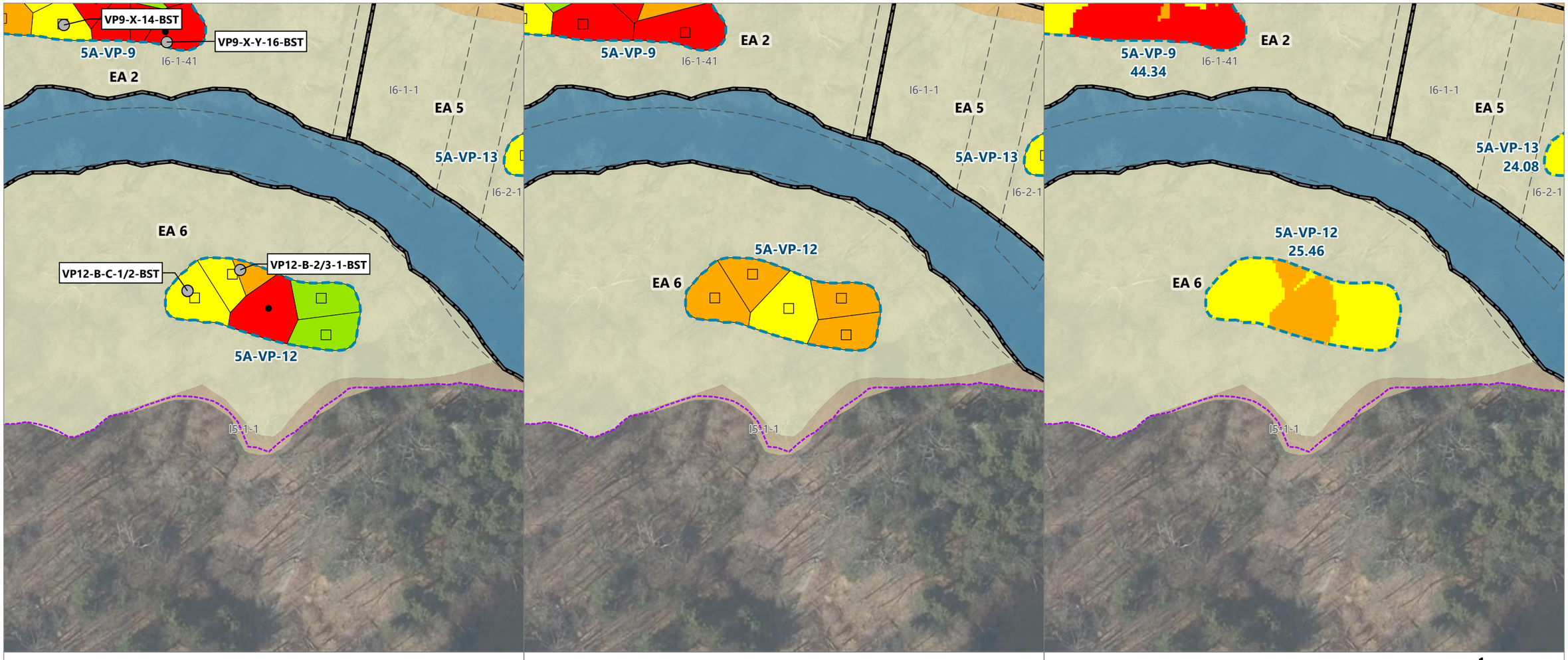
ANCHOR QEA

Figure 2-1a
Bench-Scale Sampling Locations in 5A-VP-9 (October 2023 Mobilization)
Bench-Scale Treatability Testing Summary Report
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations
- Vernal Pool Bench-Scale Testing Sampling Location

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCB concentration color coding excludes results from 2024 baseline monitoring.
3. Aerial imagery from MassGIS 2023.

0 100
Feet

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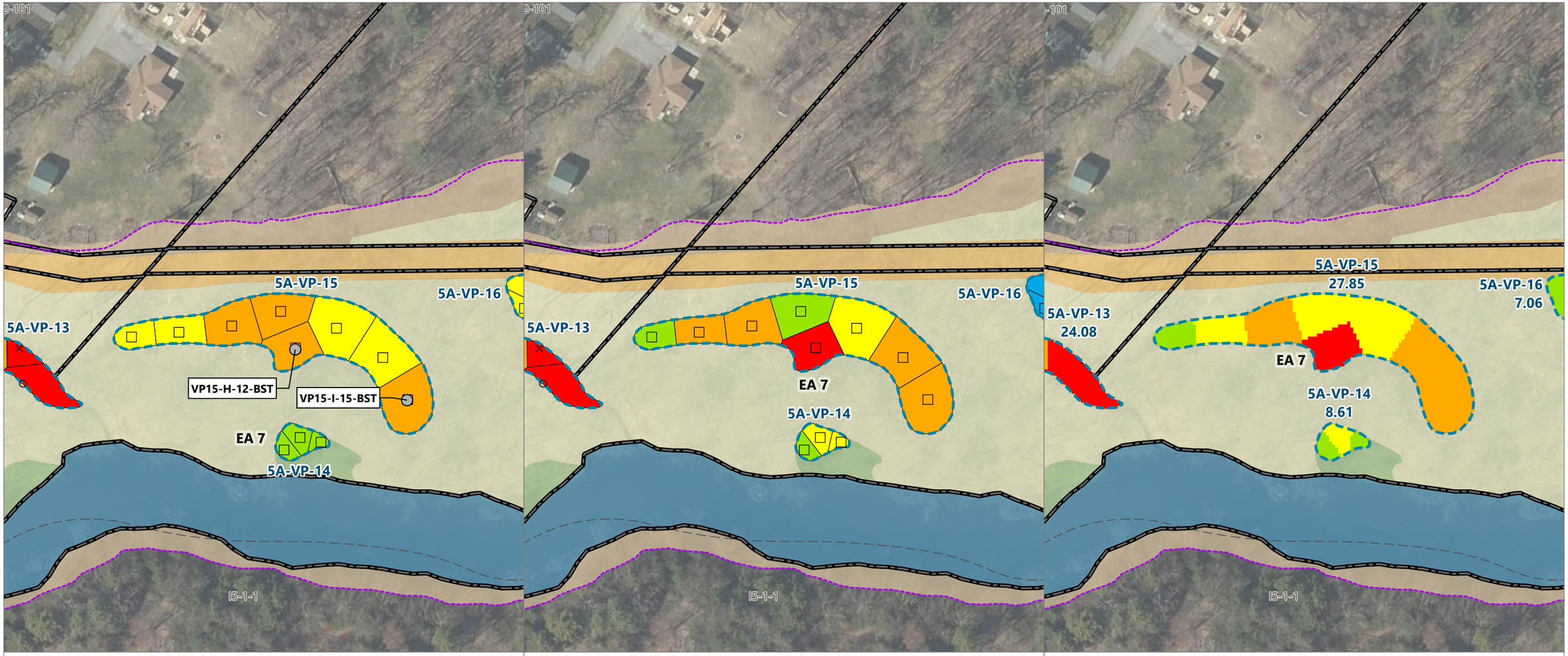
ANCHOR QEA

Figure 2-1b
Bench-Scale Sampling Locations in 5A-VP-12 (October 2023 Mobilization)
Bench-Scale Treatability Testing Summary Report
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

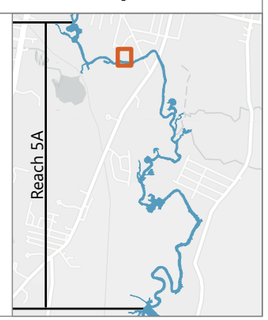
- Non-Residential PDI Sampling Locations (2022)
- Residential PDI Sampling Locations (2020-2021)
- Actual/Potential Lawn Sampling Locations
- Vernal Pool Bench-Scale Testing Sampling Location

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCB concentration color coding excludes results from 2024 baseline monitoring.
3. Aerial imagery from MassGIS 2023.

0 100
Feet



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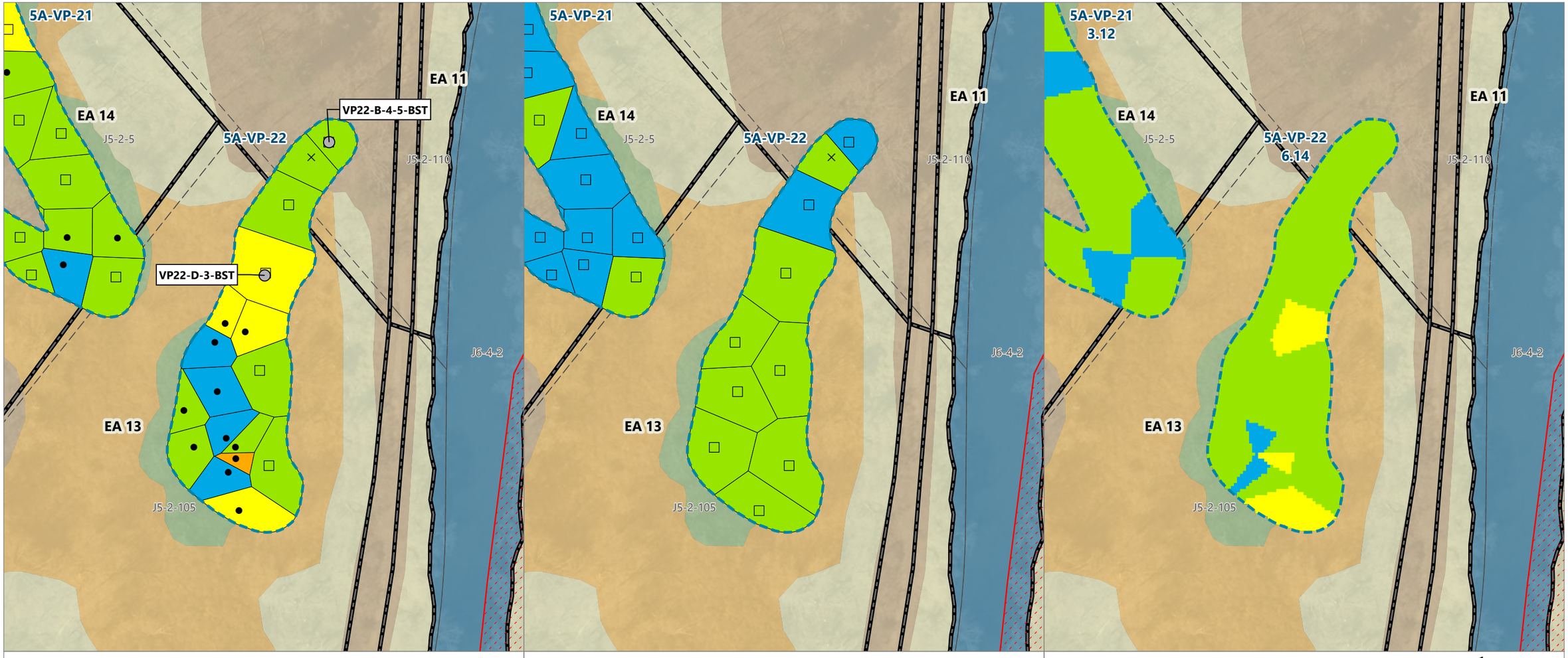
ANCHOR QEA

Figure 2-1c
Bench-Scale Sampling Locations in 5A-VP-15 (October 2023 Mobilization)
Bench-Scale Treatability Testing Summary Report
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)
- Core Area 1 Habitat

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

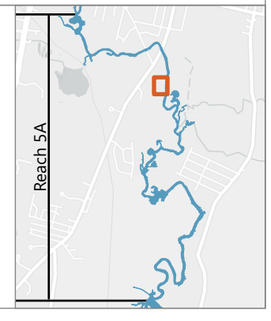
- Non-Residential PDI Sampling Locations (2022)
- Actual/Potential Lawn Sampling Locations
- Historical Sampling Locations
- Vernal Pool Bench-Scale Testing Sampling Location

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCB concentration color coding excludes results from 2024 baseline monitoring.
3. Aerial imagery from MassGIS 2023.

0 100
Feet



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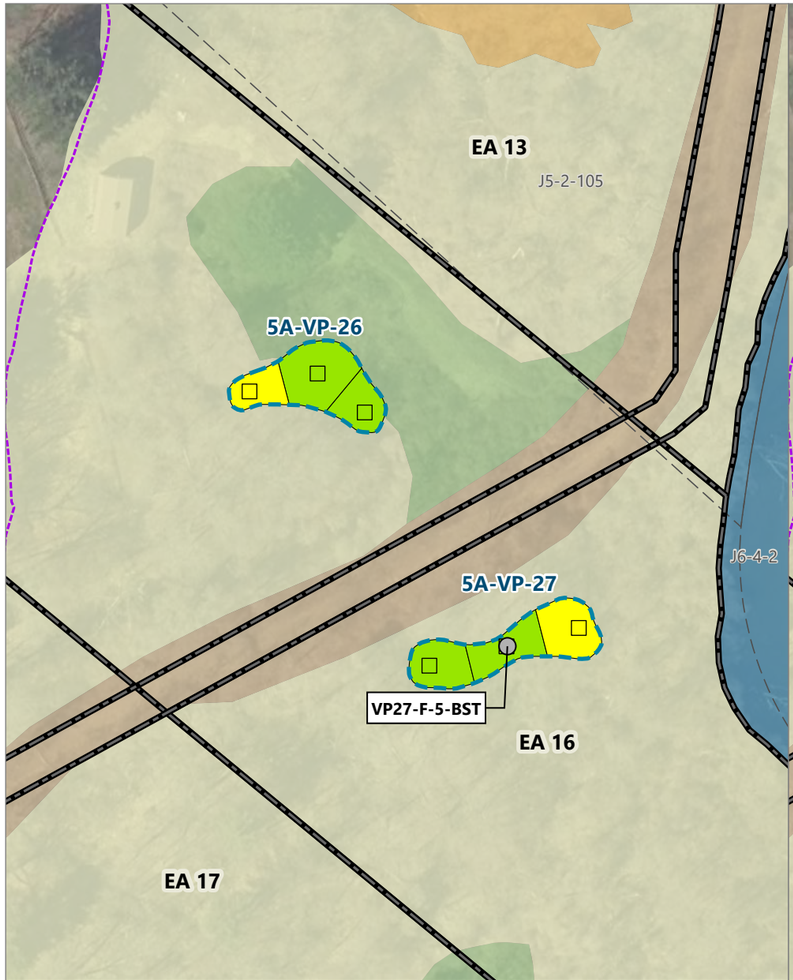
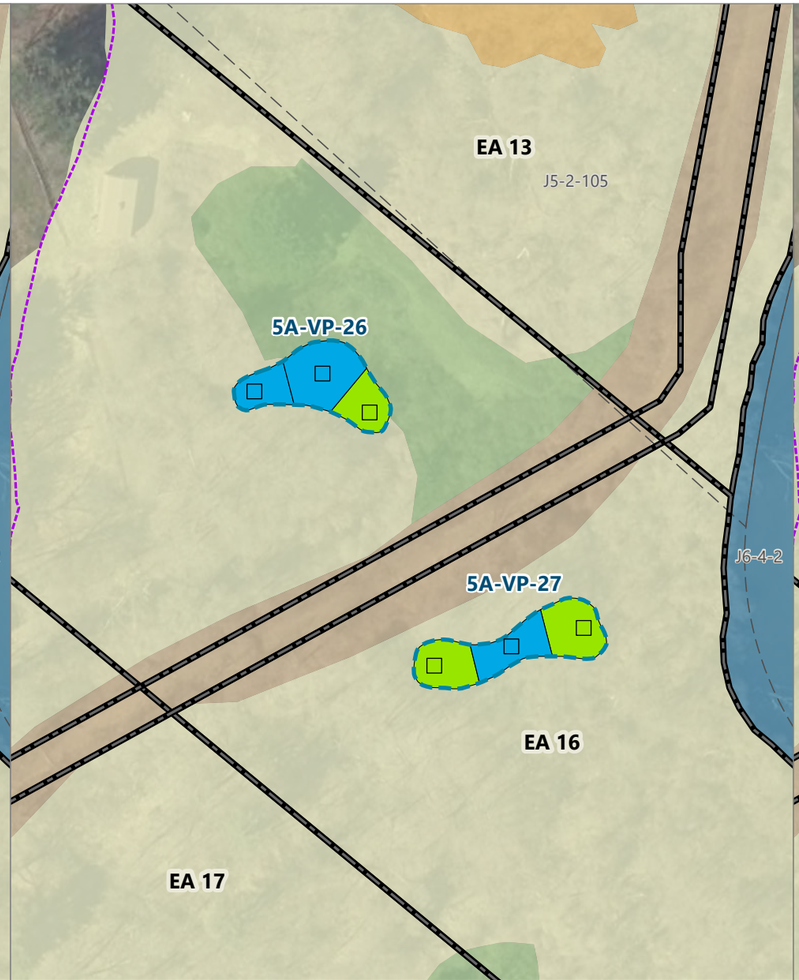
ANCHOR QEA

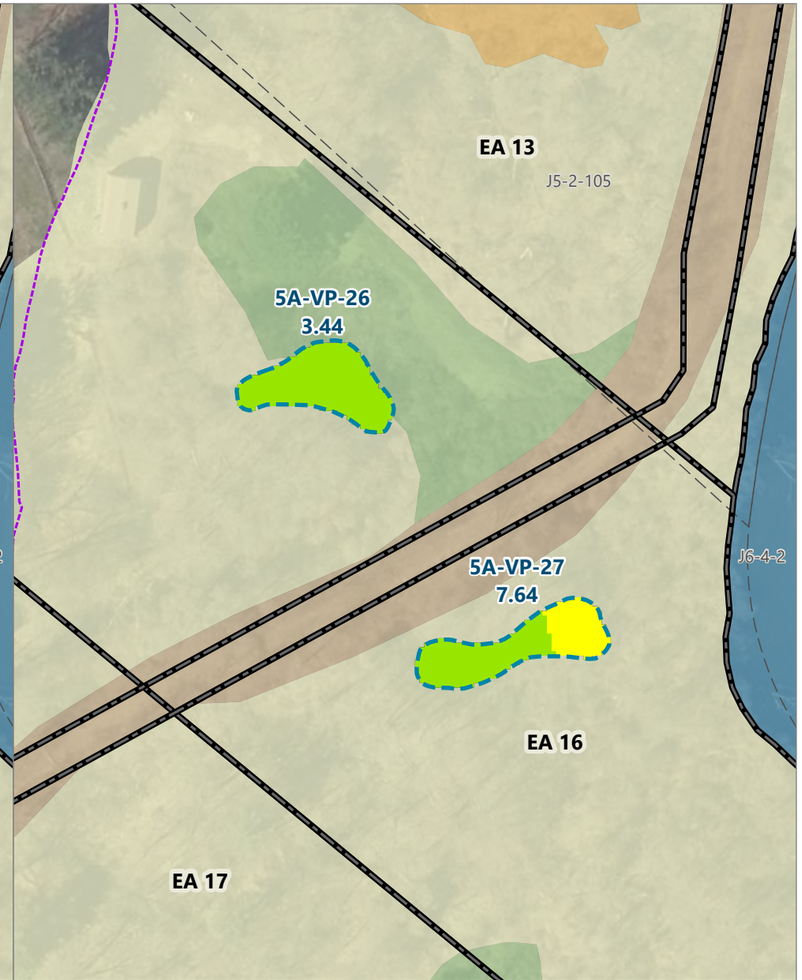
Figure 2-1d
Bench-Scale Sampling Locations in 5A-VP-22 (October 2023 Mobilization)
Bench-Scale Treatability Testing Summary Report
Housatonic River – Rest of River



Total PCB (0 to 6 inches)



Total PCB (6 to 12 inches)



Total PCB (Interpolated 0 to 12 inches)[1]

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

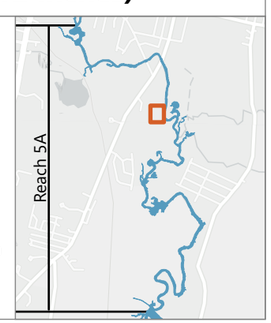
- Non-Residential PDI Sampling Locations (2022)
- Vernal Pool Bench-Scale Testing Sampling Location

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCB concentration color coding excludes results from 2024 baseline monitoring.
3. Aerial imagery from MassGIS 2023.

0 100
Feet



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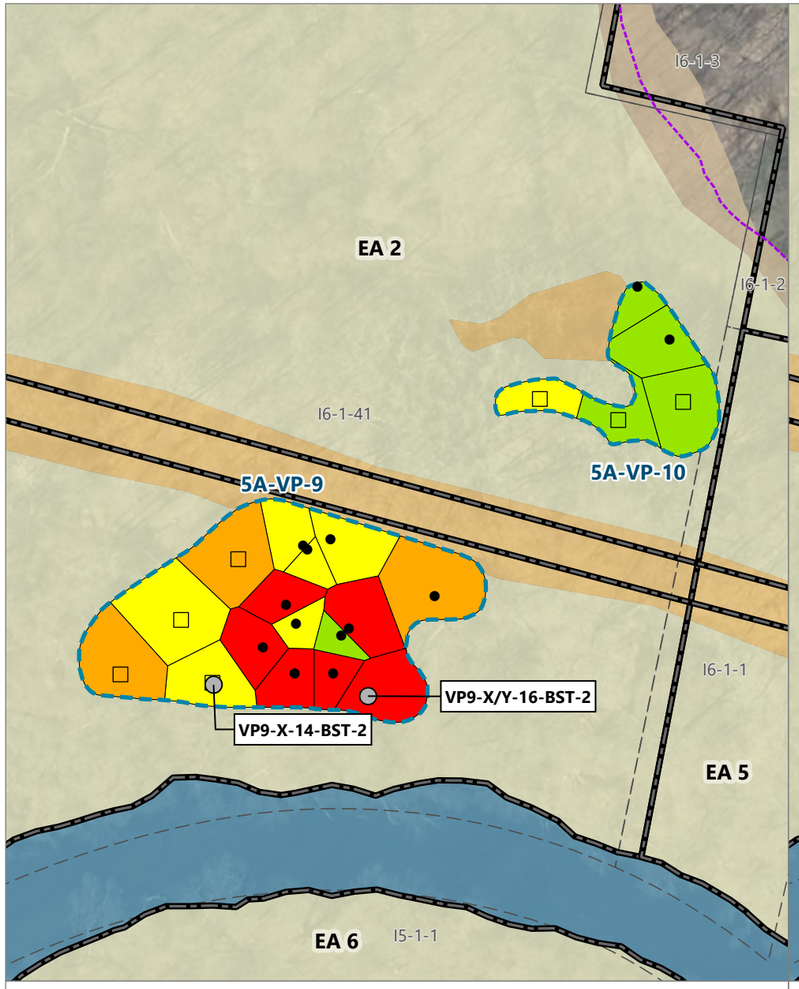
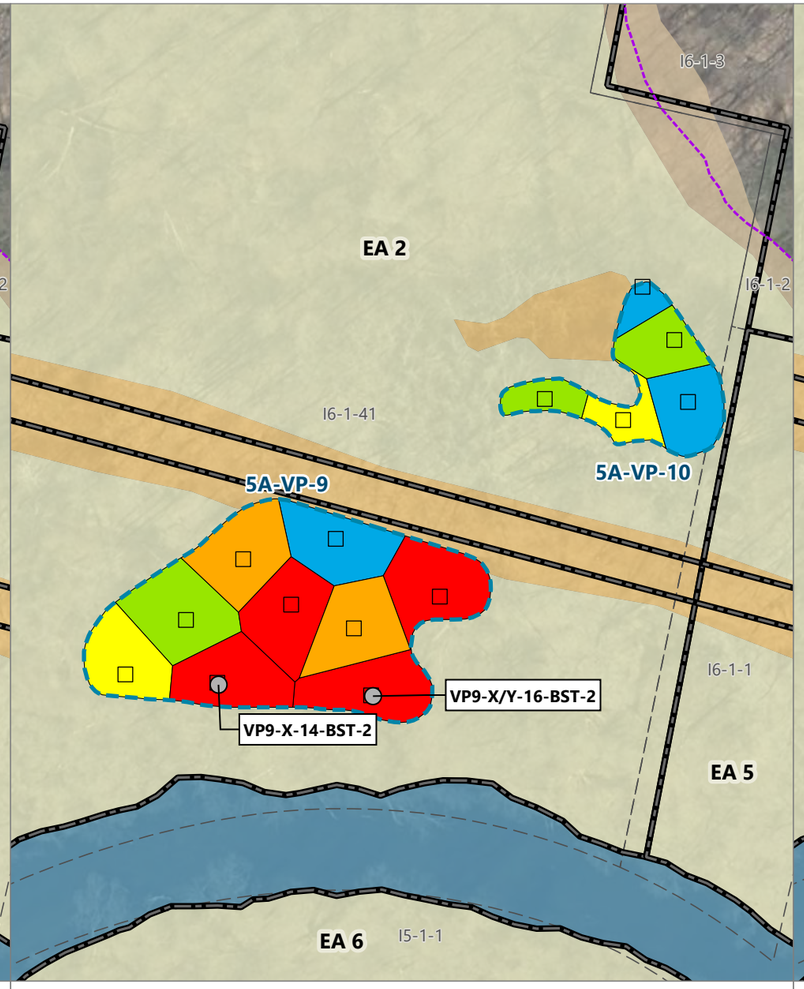
ANCHOR QEA

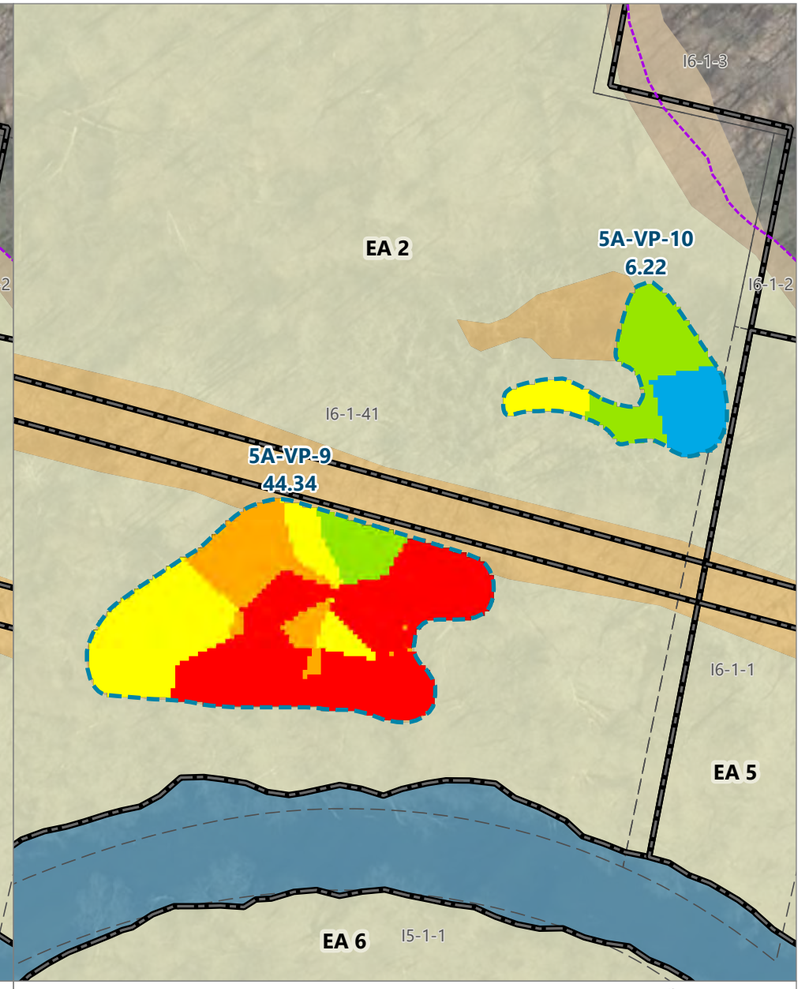
Figure 2-1e
Bench-Scale Sampling Locations in 5A-VP-27 (October 2023 Mobilization)
Bench-Scale Treatability Testing Summary Report
Housatonic River – Rest of River



Total PCB (0 to 6 inches)



Total PCB (6 to 12 inches)



Total PCB (Interpolated 0 to 12 inches)[1]

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

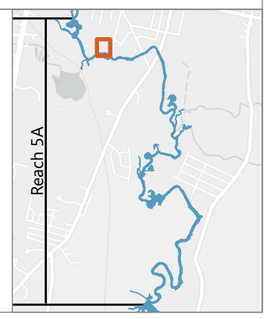
- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations
- Vernal Pool Bench-Scale Testing Sampling Location

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCB concentration color coding excludes results from 2024 baseline monitoring.
3. Aerial imagery from MassGIS 2023.

0 100
Feet



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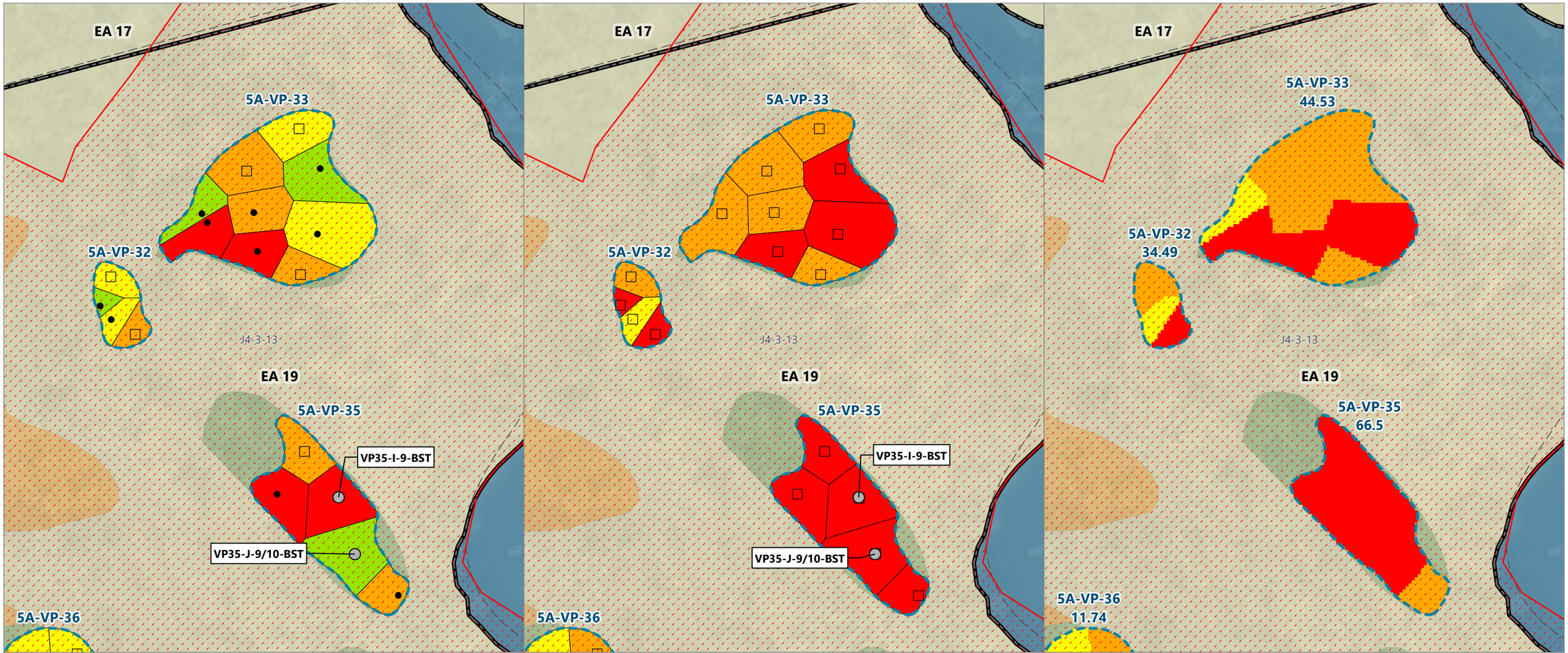
ANCHOR QEA

Figure 2-2a
Bench-Scale Sampling Location 5A-VP-9 (December 2023 Mobilization)
Bench-Scale Treatability Testing Summary Report
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)
- Core Area 1 Habitat

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

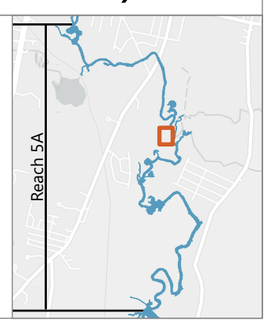
- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations
- Vernal Pool Bench-Scale Testing Sampling Location

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCB concentration color coding excludes results from 2024 baseline monitoring.
3. Aerial imagery from MassGIS 2023.

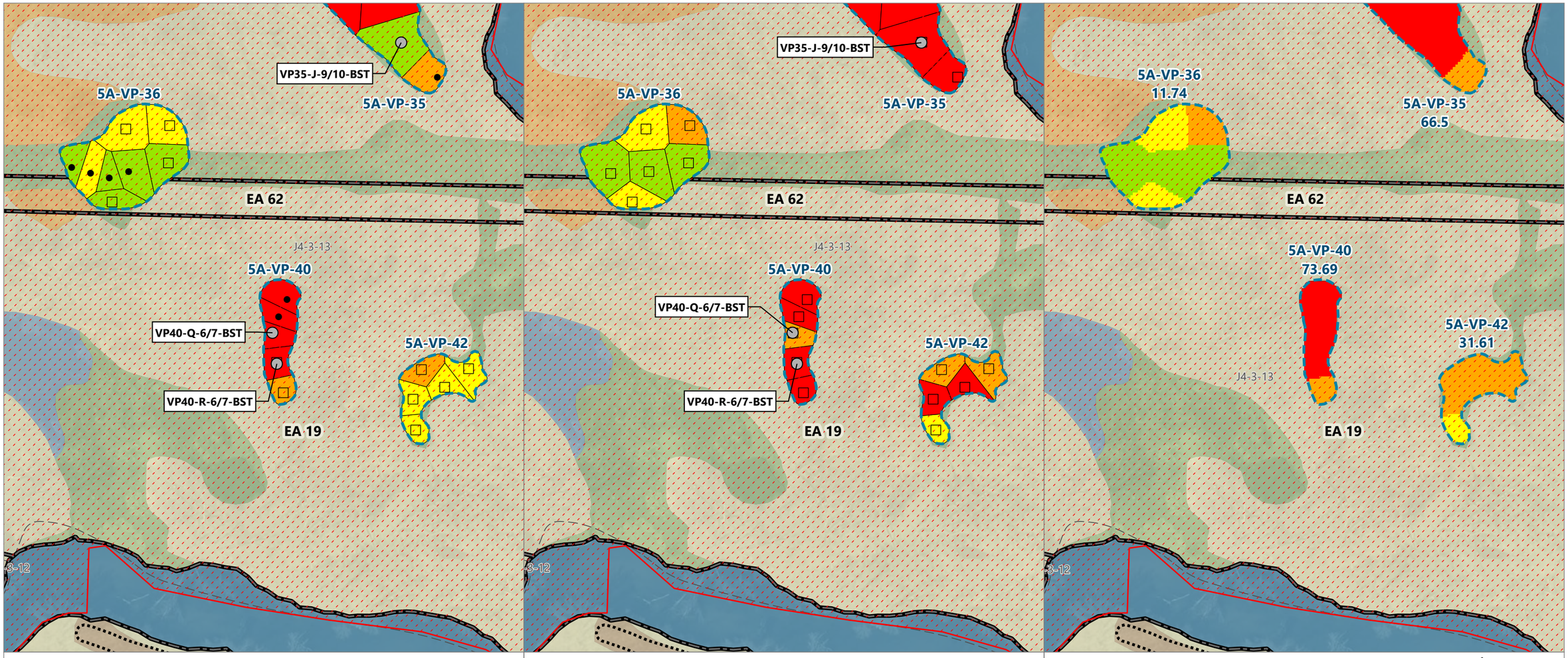
0 100
Feet



Publish Date: 2025/06/18, 12:07 PM | User: dmiller
Filepath: \\gstfile01\gis\Jobs\GE_0469\HousatonicRiver\Maps\Reports\VernalPools\PilotStudy\WorkPlan\R5APilotStudyWorkPlan.aprx\BSTTR Figure 2-2a-d Bench Scale Testing

ANCHOR QEA

Figure 2-2b
Bench-Scale Sampling Location 5A-VP-35 (December 2023 Mobilization)
Bench-Scale Treatability Testing Summary Report
Housatonic River – Rest of River



Total PCB (0 to 6 inches) | **Total PCB (6 to 12 inches)** | **Total PCB (Interpolated 0 to 12 inches)[1]**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)
- Core Area 1 Habitat

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations
- Vernal Pool Bench-Scale Testing Sampling Location

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

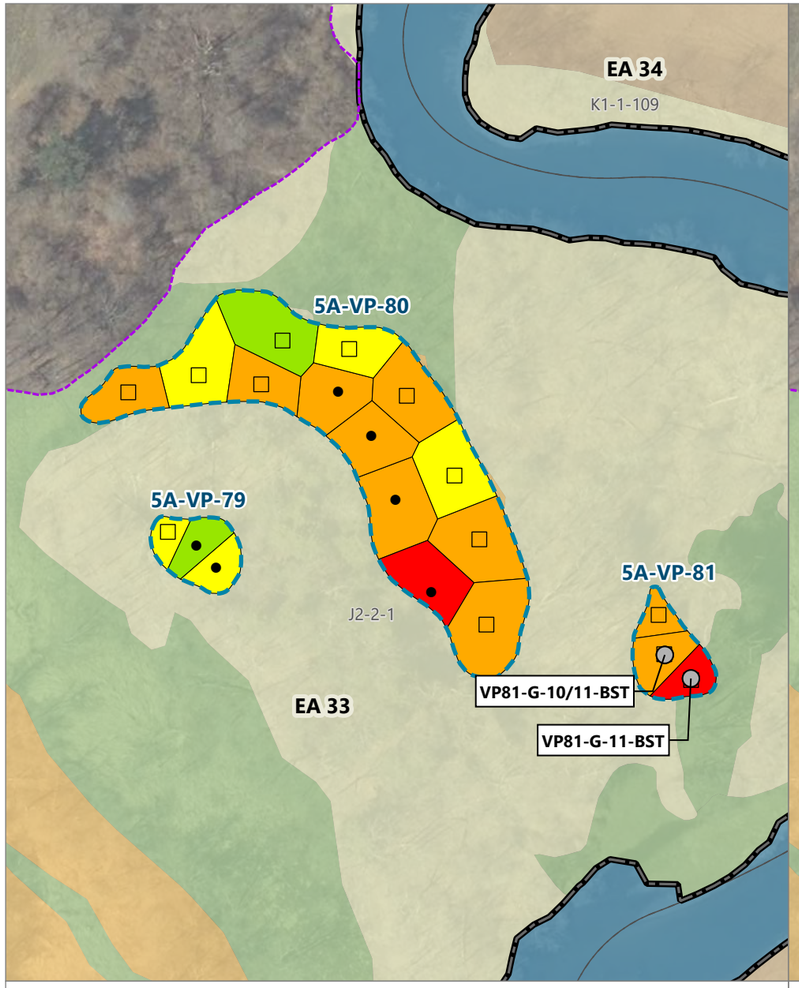
NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCB concentration color coding excludes results from 2024 baseline monitoring.
3. Aerial imagery from MassGIS 2023.

0 120
Feet

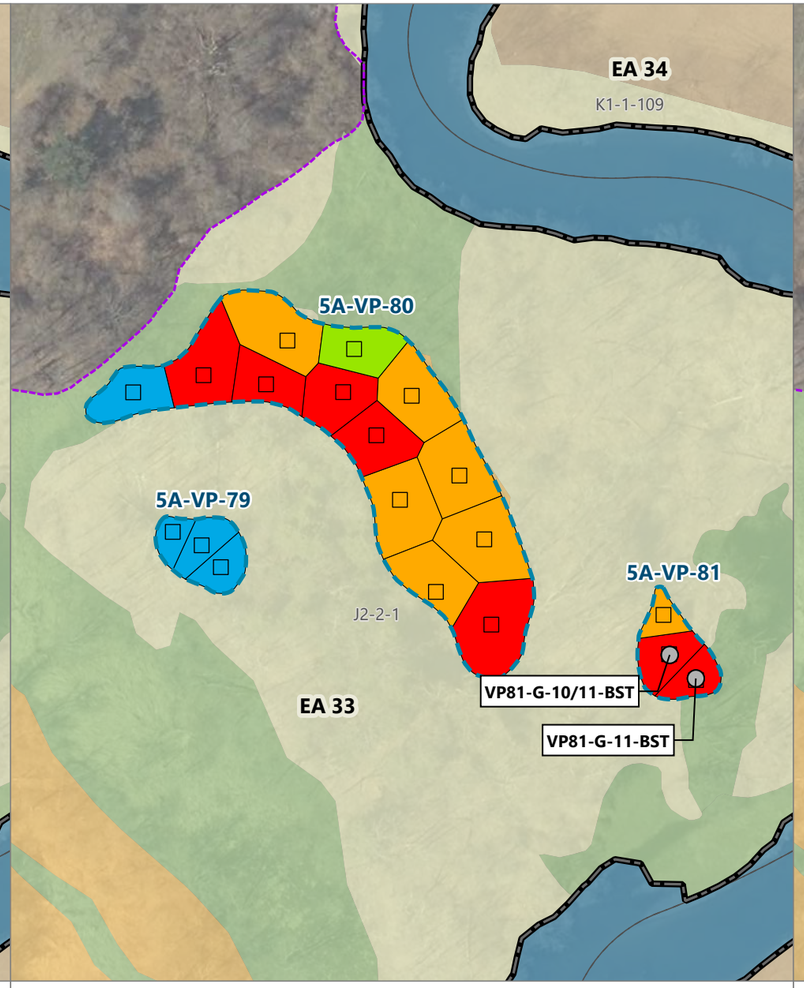
Publish Date: 2025/06/18, 12:07 PM | User: dmiller
Filepath: \\gstfile01\gis\Jobs\GE_0469\HousatonicRiver\Maps\Reports\VernalPools\PilotStudy\WorkPlan\R5APilotStudyWorkPlan.aprx\BSTTR Figure 2-2a-d Bench Scale Testing

ANCHOR QEA

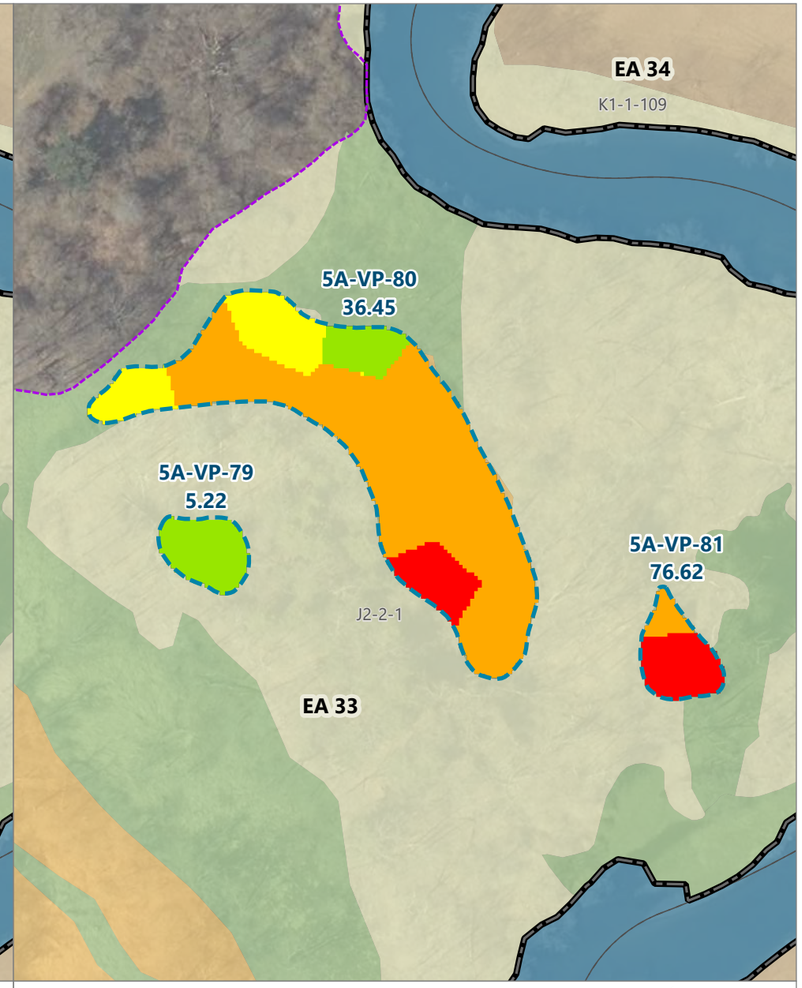
Figure 2-2c
Bench-Scale Sampling Location 5A-VP-40 (December 2023 Mobilization)
Bench-Scale Treatability Testing Summary Report
Housatonic River – Rest of River



Total PCB (0 to 6 inches)



Total PCB (6 to 12 inches)



Total PCB (Interpolated 0 to 12 inches)[1]

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

- Non-Residential PDI Sampling Locations (2022)
- Historical Sampling Locations
- Vernal Pool Bench-Scale Testing Sampling Location

PCB Concentrations (mg/kg)

- ≤ 2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

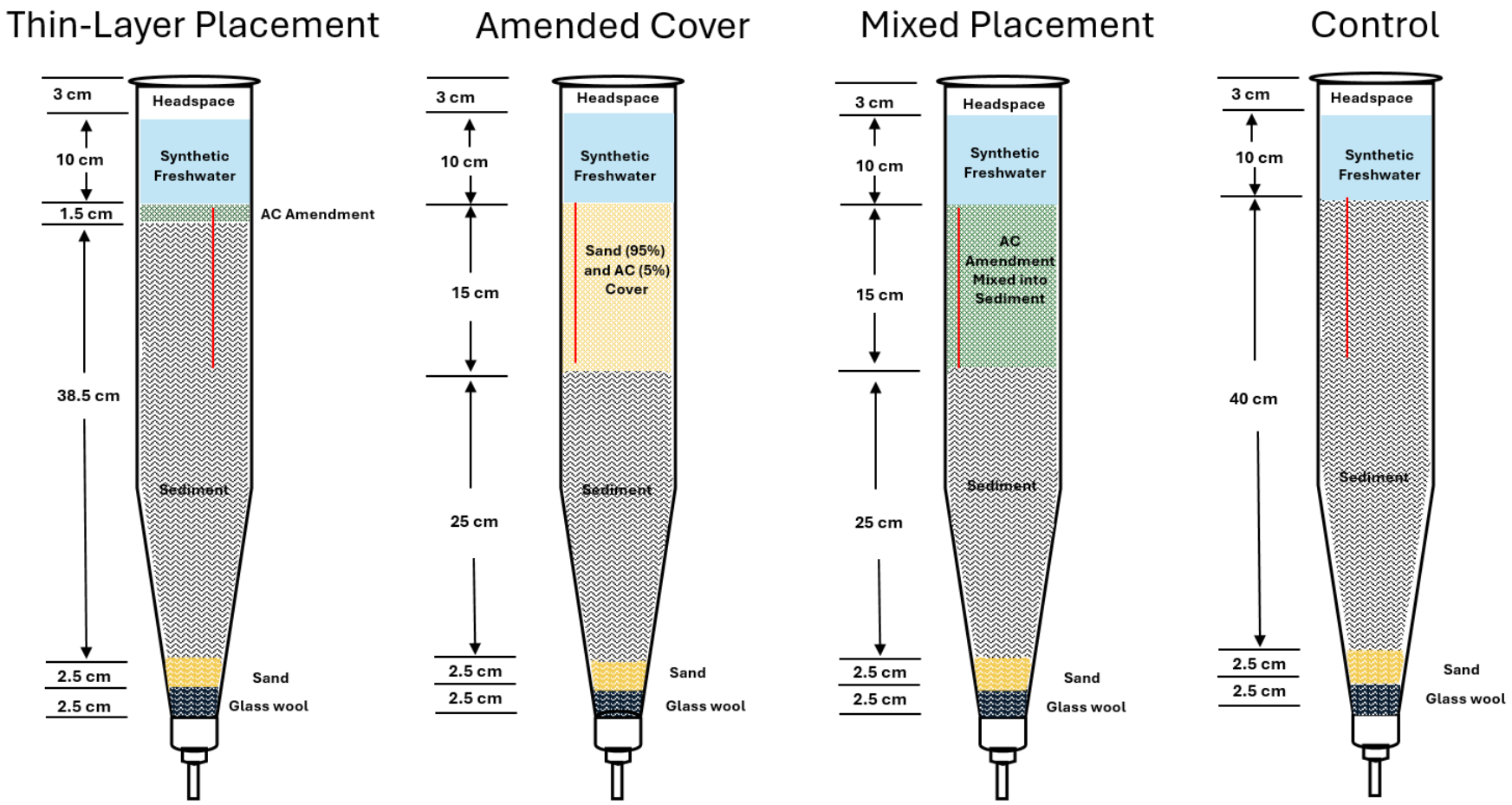
NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCB concentration color coding excludes results from 2024 baseline monitoring.
3. Aerial imagery from MassGIS 2023.

0 120
Feet

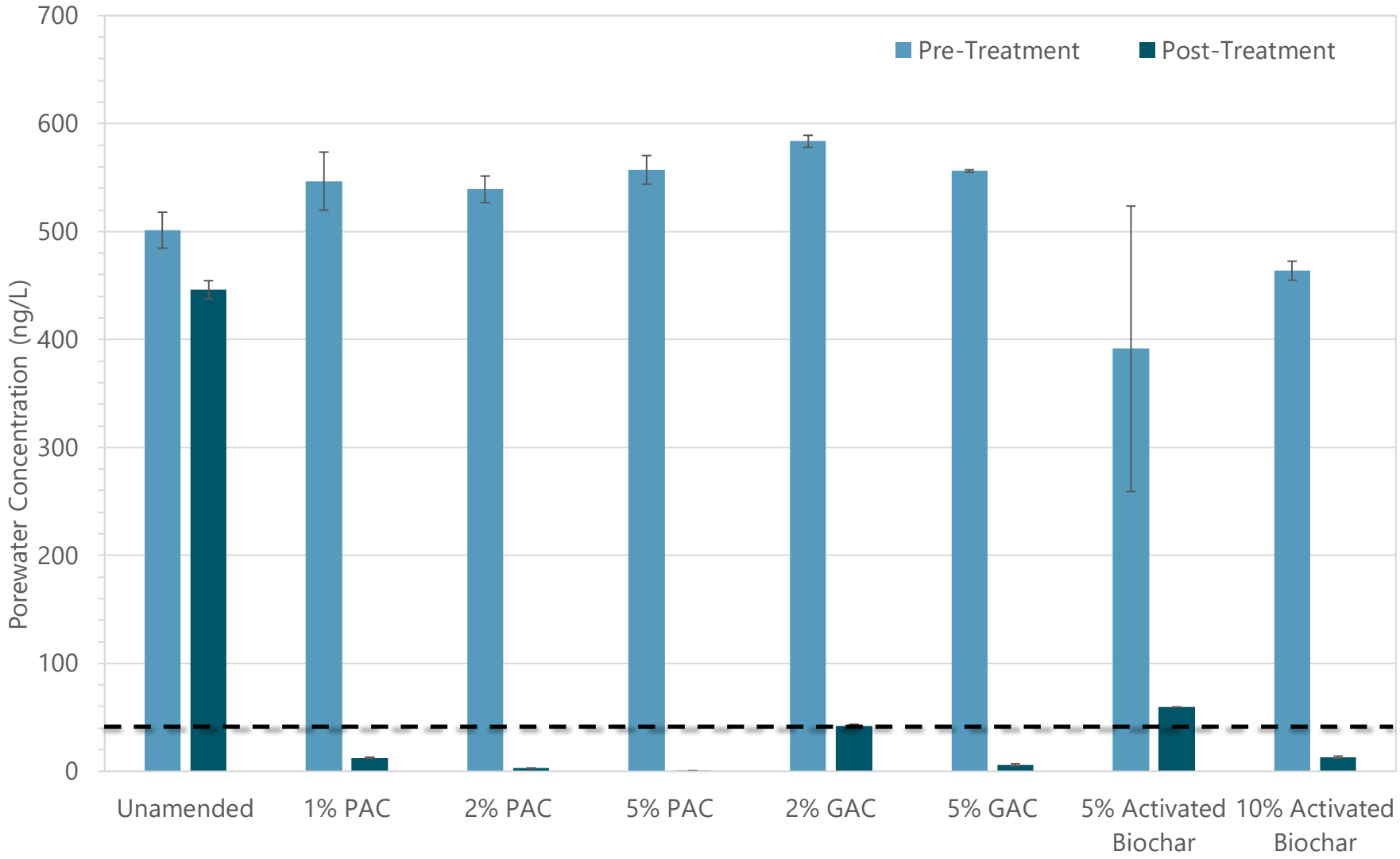
Publish Date: 2025/06/18, 12:08 PM | User: dmiller
Filepath: \\gstfile01\gis\Jobs\GE_0469\HousatonicRiver\Maps\Reports\VernalPools\PilotStudy\WorkPlan\R5APilotStudyWorkPlan.aprx\BSTTR Figure 2-2a-d Bench Scale Testing

ANCHOR QEA

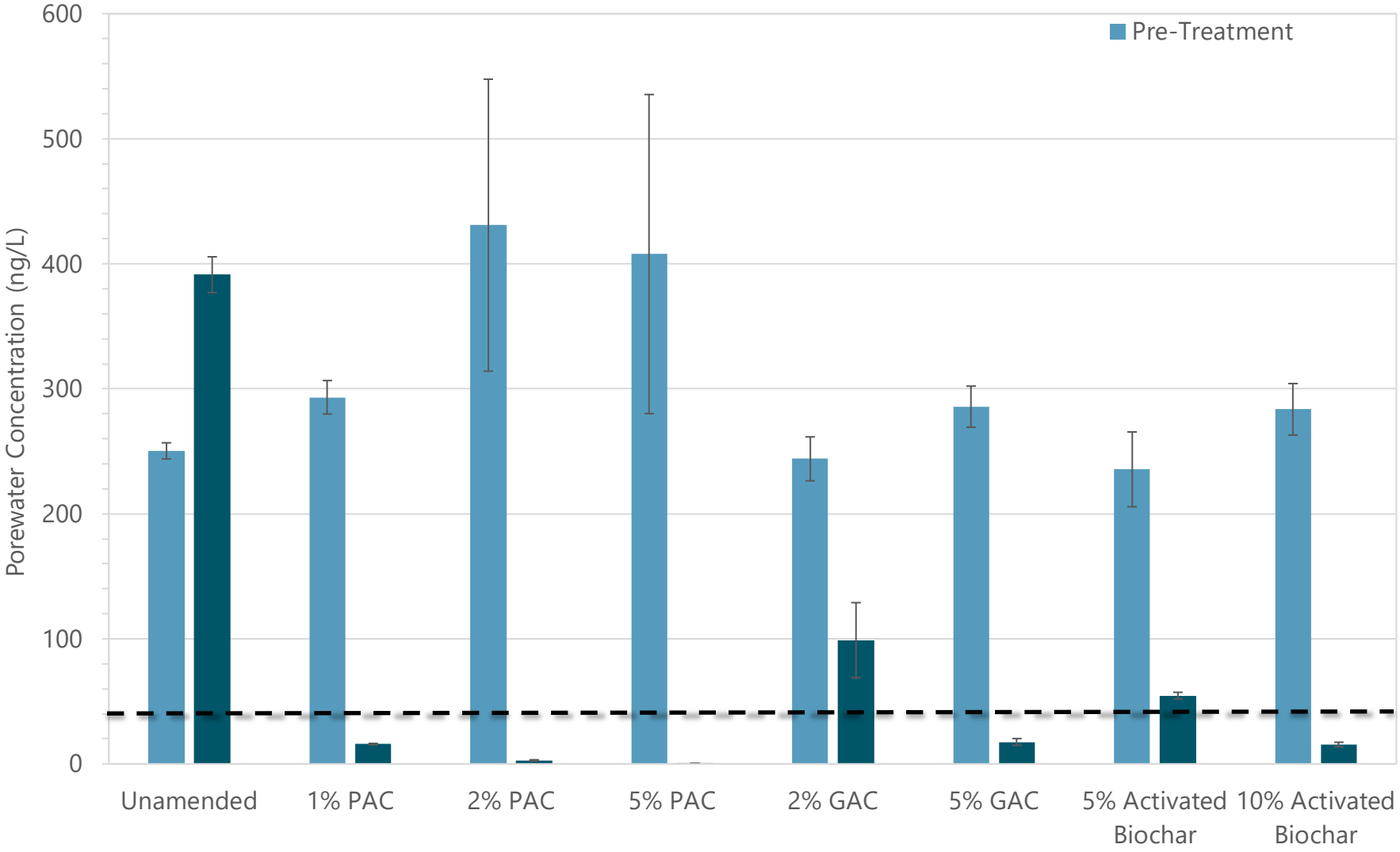
Figure 2-2d
Bench-Scale Sampling Location 5A-VP-81 (December 2023 Mobilization)
Bench-Scale Treatability Testing Summary Report
Housatonic River – Rest of River


Thin-Layer Placement
3 cm
10 cm
1.5 cm
38.5 cm
2.5 cm
2.5 cm
Headspace
Synthetic Freshwater
AC Amendment
Sediment
Sand
Glass wool
Amended Cover
3 cm
10 cm
15 cm
25 cm
2.5 cm
2.5 cm
Headspace
Synthetic Freshwater
Sand (95%) and AC (5%) Cover
Sediment
Sand
Glass wool
Mixed Placement
3 cm
10 cm
15 cm
25 cm
2.5 cm
2.5 cm
Headspace
Synthetic Freshwater
AC Amendment Mixed into Sediment
Sediment
Sand
Glass wool
Control
3 cm
10 cm
40 cm
2.5 cm
2.5 cm
Headspace
Synthetic Freshwater
Sediment
Sand
Glass wool

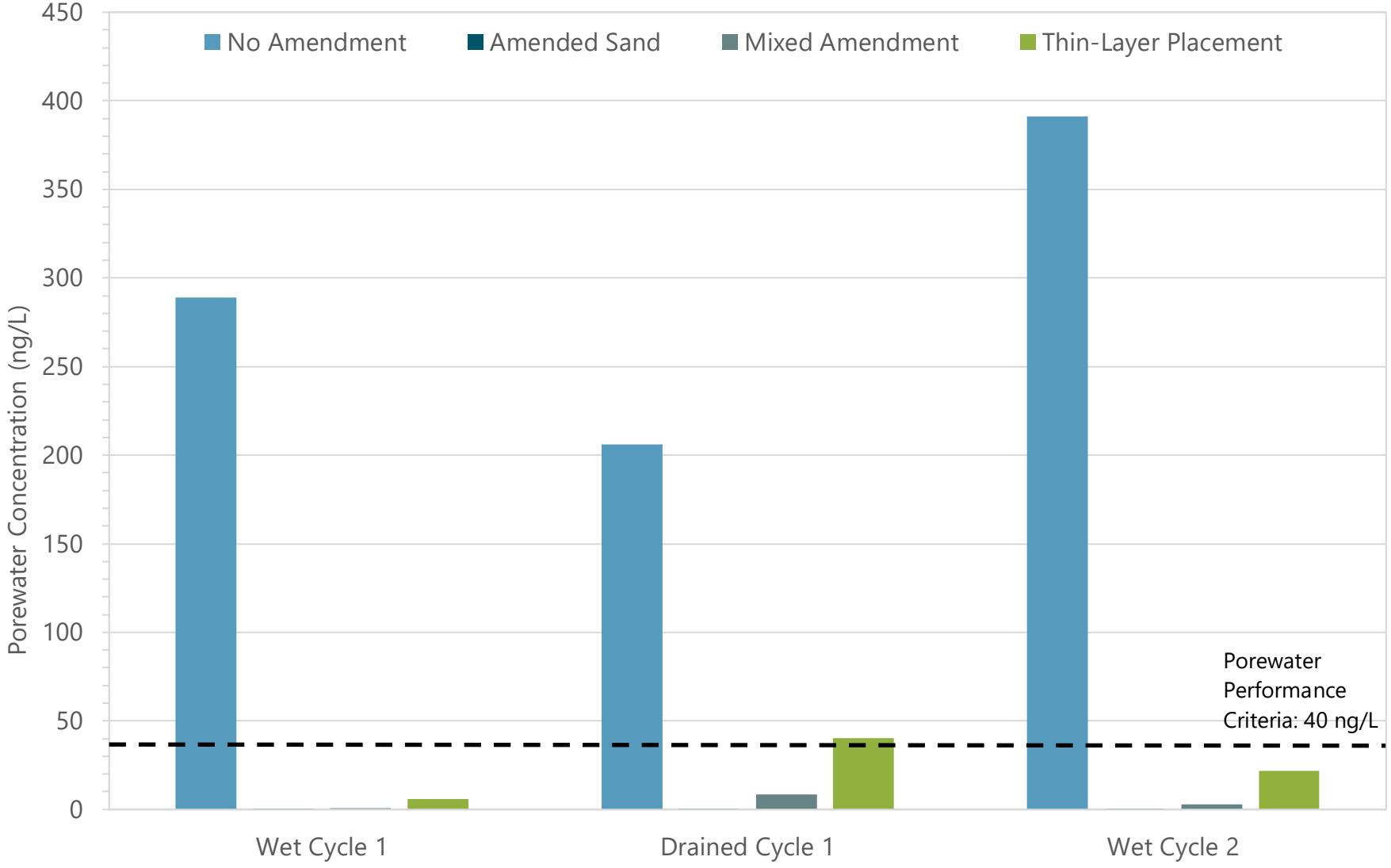
Thin Layer Placement
VP81-G-10-11-BST
Amended Cover
VP81-G-10-11-BST
Mixed Placement
VP81-G-10-11-BST
Control
VP81-G-10-11-BST



Notes:
1. Error bars represent one standard error.
2. The dashed line represents the porewater performance criteria of 40 ng/L.



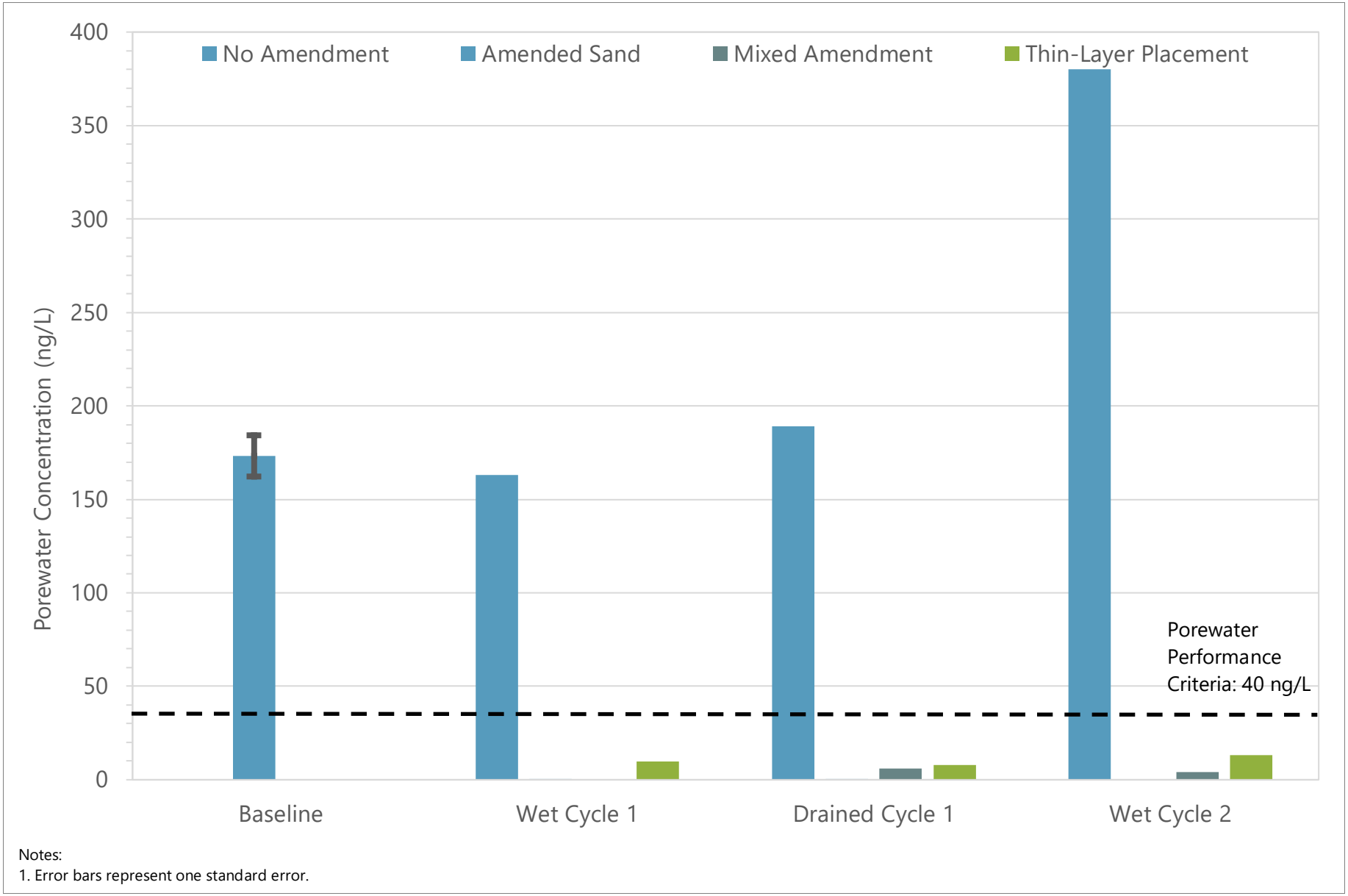
Notes:
1. Error bars represent one standard error
2. The dashed line represents the porewater performance criteria of 40 ng/L



Notes:
1. Error bars represent one standard error.

ANCHOR QEA

Figure 6-3
Bench-Scale Column Testing Results: VP12
Bench-Scale Treatability Testing Summary Report
Housatonic River – Rest of River



Notes:
1. Error bars represent one standard error.

ANCHOR QEA

Figure 6-4
Bench-Scale Column Testing Results: VP81
Bench-Scale Treatability Testing Summary Report
Housatonic River – Rest of River

Attachment A
Activated Carbon Specification Sheets

Activated Carbon Products & Services

PO Box 70096 – Vancouver, WA 98665 Phone: (360) 727-3775 Email: Info@PacificCoastCarbon.com

PCC-BioCarbon™

Pacific Coast Carbon's BioCarbon is a high activity USDA certified BioCarbon blended product. It is produced in our "state of the art" patented continuous feed pyrolysis production facility which develops a highly active carbon with pore structures that are particularly well suited for adsorbing and retaining a multitude of organic and inorganic compounds.

Typical applications include storm water and process water treatment, soil remediation, soil amendment and revegetation applications. Pacific Coast Carbon BioCarbon presents superior specification to most other filtration mediums and carbons manufactured by kiln and partial gasification facilities. All of Pacific Coast Carbon BioCarbon products are manufactured under carefully controlled parameters to produce the highest quality and activity product with the following typical properties.

TYPICAL SPECIFICATIONS:

Butane Activity (g/100g dry)	10.5
U.S. Mesh Size Available	4x50 / 4x8 / 8x30/ 12x30/ 20x50
Ash (% weight maximum)	5%
Moisture (% weight)	0.5%
Bulk Density (lb/ft^3) varies by sieve size and feed stock	12 lb/ft3 – 25/ft3/ft3
Surface Area (m^2/gm. BET)	450
Ash (% weight)	1.6
Hardness Number	97 - 99
Total Nitrogen (% by mass)	0.70
Total Carbonates (as CaCO3)	1.0
pH value	7.2-7.8
Organic Carbon (% minimum)	92

Packaging: 7 ft3 drums / 27 ft3 bulk bags / bulk transport and smaller bagging options available
Shipping Point: Prineville, OR / Ridgefield, WA

Shipping Information: Pacific Coast Carbons BioCarbon is produced by high temperature pyrolysis equipment capable of creating graphitized products. It is therefore exempt from provisions of IMCO 4.2, IATA A 51, IATA #395 and UN1362. The domestic freight classification is NMFC #40560; UFC #20460.

This information has been gathered from standard reference materials and/or test procedures and is believed to be true and accurate. It is offered solely for your consideration and verification. None of the information presented shall be construed as constituting a warranty or representation, expressed or implied, for which we assume legal responsibility or that the information or goods described is fit for any particular use either alone or in combination with other goods or processes, or that it's use does not conflict with existing patent rights. No license is granted to infringe on any patent rights or to practice any patented invention.

FILTRASORB® 400

Granular Activated Carbon

Applications

FILTRASORB 400 activated carbon can be used in a variety of liquid phase applications for the removal of dissolved organic compounds. FILTRASORB 400 has been successfully applied for over 40 years in applications such as drinking and process water purification, wastewater treatment, and food, pharmaceutical, and industrial purification.

Description

FILTRASORB 400 is a granular activated carbon for the removal of dissolved organic compounds from water and wastewater as well as industrial and food processing streams. These contaminants include taste and odor compounds, organic color, total organic carbon (TOC), industrial organic compounds such as TCE and PCE, and PFAS.

This activated carbon is made from select grades of bituminous coal through a process known as reagglomeration to produce a high activity, durable, granular product capable of withstanding the abrasion associated with repeated backwashing, hydraulic transport, and reactivation for reuse. Activation is carefully controlled to produce a significant volume of both low and high energy pores for effective adsorption of a broad range of high and low molecular weight organic contaminants.

FILTRASORB 400 is formulated to comply with all the applicable provisions of the AWWA Standard for Granular Activated Carbon (B604) and Food Chemicals Codex. This product may also be certified to the requirements of ANSI/NSF Standard 61 for use in municipal water treatment facilities. Only products bearing the NSF Mark are certified to the NSF/ANSI 61 - Drinking Water System Components - Health Effects standard. Certified Products will bear the NSF Mark on packaging or documentation shipped with the product.

Features / Benefits

- Produced from a pulverized blend of high quality bituminous coals resulting in a consistent, high quality product.
- Carbon granules are uniformly activated through the whole granule, not just the outside, resulting in excellent adsorption properties and constant adsorption kinetics.
- The reagglomerated structure ensures proper wetting while also eliminating floating material.
- High mechanical strength relative to other raw materials, thereby reducing the generation of fines during backwashing and hydraulic transport.
- Carbon bed segregation is retained after repeated backwashing, ensuring the adsorption profile remains unchanged and therefore maximizing the bed life.
- Reagglomerated with a high abrasion resistance, which provides excellent reactivation performance.
- High density carbon resulting in a greater adsorption capacity per unit volume.

Specifications[1]	FILTRASORB 400
Iodine Number, mg/g	1000 (min)
Moisture by Weight	2% (max)
Effective Size	0.55–0.75 mm
Uniformity Coefficient	1.9 (max)
Abrasion Number	75 (min)
Screen Size by Weight, US Sieve Series	
On 12 mesh	5% (max)
Through 40 mesh	4% (max)

[1]Calgon Carbon test method

Typical Properties*	FILTRASORB 400
Apparent Density (tamped)	0.54 g/cc
Water Extractables	<1%
Non-Wettable	<1%

*For general information only, not to be used as purchase specifications.

Safety Message

Wet activated carbon can deplete oxygen from air in enclosed spaces. If use in an enclosed space is required, procedures for work in an oxygen deficient environment should be followed.

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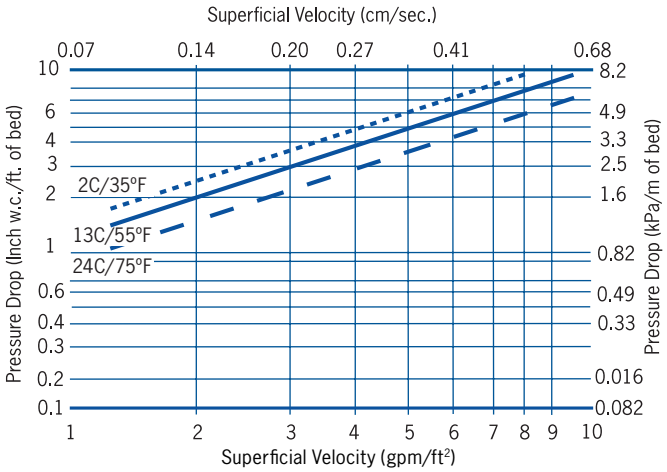
DS-FILTRA40017-EIN-E1

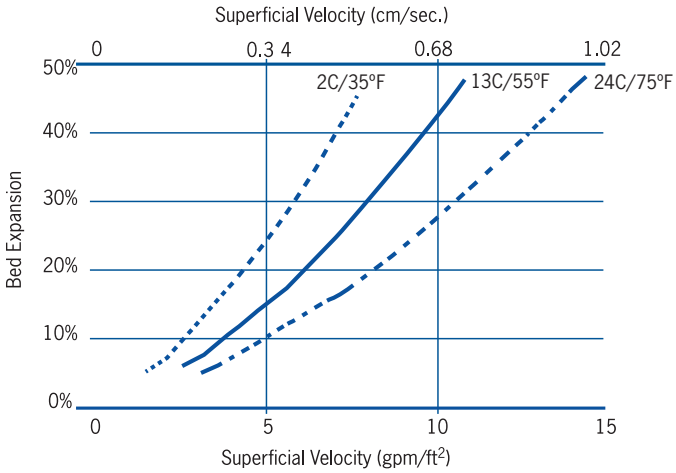
Typical Pressure Drop

Based on a backwashed and segregated bed



Typical Bed Expansion During Backwash

Based on a backwashed and segregated bed



Design Considerations

FILTRASORB 400 activated carbon is typically applied in down-flow packed-bed operations using either pressure or gravity systems. Design considerations for a treatment system is based on the user's operating conditions, the treatment objectives desired, and the chemical nature of the compound(s) being adsorbed.

Safety Message

Wet activated carbon can deplete oxygen from air in enclosed spaces. If use in an enclosed space is required, procedures for work in an oxygen deficient environment should be followed.

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DS-FILTRA40017-EIN-E1

SALES SPECIFICATION SHEET

WPH

Powder Activated Carbon

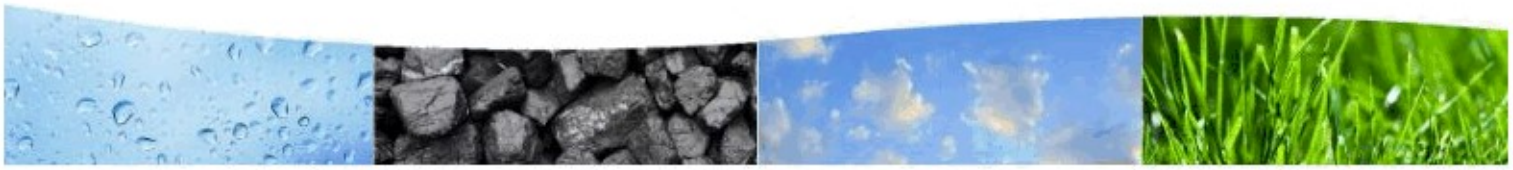
Test	Specification		Calgon Carbon Test Method
	Min	Max	
IODINE NUMBER, mg/g	800	-	TM-4,ASTM D4607
MOISTURE (AS PACKAGED), wt%	-	8	TM-1,ASTM D2867
< 100 US MESH [0.150 mm], wt%	99	-	TM-13,ASTM D5158
< 200 US MESH [0.075 mm], wt%	95	-	TM-13,ASTM D5158
< 325 US MESH [0.045 mm], wt%	90	-	TM-13,ASTM D5158

Typical Properties:

Product to meet or exceed AWWA specification B-600-90.
This product complies with the requirements for activated carbon as defined by the Food Chemicals Codex (FCC) (Latest Edition) published by the U.S. Pharmacopeia.

Only products bearing the NSF Mark are Certified to NSF/ANSI/CAN 61 - Drinking Water System Components - Health Effects standard. Certified Products will bear the NSF Mark on packing or documentation shipped with the product.

Calgon Carbon Corporation's activated carbon products are continuously being improved and changes may have taken place since this publication went to press. 13365-12/16/2015



+1 800 422 7266 calgoncarbon.com

CalgonCarbon
A Kuraray Company

Attachment B
Water Quality Monitoring Results

Housatonic Column Test Water Quality Measurements

VP12-B-C-1/2-BST

Week 1	**Actual date water quality was taken from column: 2/16**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP12-B-C-1/2-BST	8.61	8.22	20.70	**NA[3]**	80.00
Amended Cover Column VP12-B-C-1/2-BST	8.03	9.15	20.70	**NA[3]**	40.00
Mixed Placement Column VP12-B-C-1/2-BST	7.03	8.82	20.70	**NA[3]**	60.00
Control Column VP12-B-C-1/2-BST	7.01	8.74	20.70	**NA[3]**	60.00
Week 2	**Actual date water quality was taken: 2/23**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP12-B-C-1/2-BST	8.12	7.44	21.20	**0.66[3]**	160.00
Amended Cover Column VP12-B-C-1/2-BST	6.72	9.20	21.20	**2.50[3]**	80.00
Mixed Placement Column VP12-B-C-1/2-BST	7.63	8.73	21.10	**0.30[3]**	120.00
Control Column VP12-B-C-1/2-BST	7.45	8.96	21.10	**0.36[3]**	120.00
Week 3	**Actual date water quality was taken: 3/1**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP12-B-C-1/2-BST	7.49	**12.50[1]**	20.20	54.50	140.00
Amended Cover Column VP12-B-C-1/2-BST	7.61	**12.48[1]**	20.10	57.99	40.00
Mixed Placement Column VP12-B-C-1/2-BST	7.55	**12.80[1]**	20.30	90.29	120.00
Control Column VP12-B-C-1/2-BST	7.53	**12.58[1]**	19.90	100.41	120.00
Week 4	**Actual date water quality was taken: 3/8**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP12-B-C-1/2-BST	7.03	**12.12[1]**	20.20	62.24	140.00
Amended Cover Column VP12-B-C-1/2-BST	7.18	**12.97[1]**	19.90	54.02	60.00
Mixed Placement Column VP12-B-C-1/2-BST	7.16	**12.32[1]**	20.10	81.91	120.00
Control Column VP12-B-C-1/2-BST	7.09	**12.52[1]**	20.10	104.03	140.00
Week 5	**Actual date water quality was taken: 3/15**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP12-B-C-1/2-BST	7.63	7.86	19.90	71.72	180.00
Amended Cover Column VP12-B-C-1/2-BST	7.54	9.24	20.10	54.50	60.00
Mixed Placement Column VP12-B-C-1/2-BST	7.52	8.83	20.10	91.90	120.00
Control Column VP12-B-C-1/2-BST	7.27	7.69	20.00	130.97	180.00

VP81-G-10-11-BST

Week 1	**Actual date water quality was taken from columns: 3/1**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP81	7.77	**11.83[1]**	19.90	**101.31[2]**	180.00
Amended Cover Column VP81	7.85	**12.56[1]**	20.10	**91.90[2]**	120.00
Mixed Placement Column VP81	7.66	**12.24[1]**	20.20	**87.15[2]**	120.00
Control Column VP81	7.55	**12.54[1]**	20.10	**96.06[2]**	140.00
Week 2	**Actual date water quality was taken: 3/8**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3[2]**	**Alkalinity mg/L**
Thin Layer Placement Column VP81	7.26	**12.86[1]**	19.90	**132.13[2]**	180.00
Amended Cover Column VP81	7.43	**12.64[1]**	20.20	**103.11[2]**	140.00
Mixed Placement Column VP81	7.45	**12.52[1]**	20.10	**94.38[2]**	120.00
Control Column VP81	7.28	**12.28[1]**	20.10	**135.69[2]**	200.00
Week 3	**Actual date water quality was taken: 3/15**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3[2]**	**Alkalinity mg/L**
Thin Layer Placement Column VP81	6.85	8.35	20.10	**156.35[2]**	180.00
Amended Cover Column VP81	7.01	8.38	20.20	**114.68[2]**	180.00
Mixed Placement Column VP81	7.26	9.01	20.10	**113.67[2]**	140.00
Control Column VP81	7.17	7.44	19.90	**164.88[2]**	260.00
Week 4	**Actual date water quality was taken: 3/22**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3[2]**	**Alkalinity mg/L**
Thin Layer Placement Column VP81	6.99	9.01	19.30	**175.43[2]**	300.00
Amended Cover Column VP81	7.19	9.02	19.20	**135.69[2]**	220.00
Mixed Placement Column VP81	7.28	9	19.20	**135.69[2]**	220.00
Control Column VP81	7.51	8.98	19.30	**175.43[2]**	300.00
Week 5	**Actual date water quality was taken: 3/29**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP81	7.96	7.85	20.70	170.83	260.00
Amended Cover Column VP81	7.78	9.3	20.70	138.12	220.00
Mixed Placement Column VP81	7.55	8.5	20.70	129.81	200.00
Control Column VP81	7.78	8.15	20.70	169.32	240.00

Housatonic Column Test Water Quality Measurements

Week 6	Actual date water quality was taken: 3/22				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP12-B-C-1/2-BST	7.92	8.96	19.30	61.69	200.00
Amended Cover Column VP12-B-C-1/2-BST	8.12	9.45	19.20	51.22	100.00
Mixed Placement Column VP12-B-C-1/2-BST	7.68	9.51	19.30	93.54	140.00
Control Column VP12-B-C-1/2-BST	7.48	8.94	19.10	144.37	240.00
Week 7	**Actual date water quality was taken: 3/29**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP12-B-C-1/2-BST	7.12	9.10	20.70	74.30	260.00
Amended Cover Column VP12-B-C-1/2-BST	6.76	9.20	20.70	59.55	100.00
Mixed Placement Column VP12-B-C-1/2-BST	6.46	8.34	20.70	107.78	180.00
Control Column VP12-B-C-1/2-BST	7.33	8.15	20.70	170.83	240.00
Week 8	**Actual date water quality was taken: 4/5**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP12-B-C-1/2-BST	7.05	7.76	21.30	76.98	260.00
Amended Cover Column VP12-B-C-1/2-BST	7.22	7.62	21.30	56.47	100.00
Mixed Placement Column VP12-B-C-1/2-BST	6.21	8.43	21.30	107.78	180.00
Control Column VP12-B-C-1/2-BST	7.05	7.71	21.30	183.37	280.00
Week 9	**Actual date water quality was taken: 4/12**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP12-B-C-1/2-BST	7.88	9.45	20.30	114.68	160.00
Amended Cover Column VP12-B-C-1/2-BST	7.49	9.75	20.30	83.37	80.00
Mixed Placement Column VP12-B-C-1/2-BST	7.71	9.46	20.30	149.58	180.00
Control Column VP12-B-C-1/2-BST	7.06	9.23	20.30	245.61	320.00
Week 10	**Actual date water quality was taken: 6/25/24**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP12-B-C-1/2-BST	7.05	8.82	20.40	87.15	60.00
Amended Cover Column VP12-B-C-1/2-BST	7.25	10.07	20.50	61.69	100.00
Mixed Placement Column VP12-B-C-1/2-BST	7.13	9.35	20.40	49.44	100.00
Control Column VP12-B-C-1/2-BST	6.96	9.62	20.50	67.41	60.00

Week 6	Actual date water quality was taken: 4/5				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP81	7.81	7.76	21.30	159.14	280.00
Amended Cover Column VP81	7.68	9	21.30	91.90	200.00
Mixed Placement Column VP81	7.31	8.37	21.30	114.68	180.00
Control Column VP81	7.56	7.35	21.30	166.35	240.00
Week 7	**Actual date water quality was taken: 4/12**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP81	7.71	9.44	21.20	200.35	280.00
Amended Cover Column VP81	8.13	9.47	21.20	160.56	180.00
Mixed Placement Column VP81	7.74	9.37	21.20	153.60	180.00
Control Column VP81	7.58	9.36	21.20	243.45	280.00
Week 8	**Actual date water quality was taken: 4/19**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP81	7.56	7.63	21.90	261.32	280.00
Amended Cover Column VP81	8.35	9.35	21.90	230.85	220.00
Mixed Placement Column VP81	7.67	8.61	21.90	189.98	220.00
Control Column VP81	7.34	6.68	21.90	163.43	280.00
Week 9	**Actual date water quality was taken: 4/25**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP81	7.53	7.85	19.60	150.91	280.00
Amended Cover Column VP81	7.49	9.6	19.70	128.67	180.00
Mixed Placement Column VP81	7.52	9.02	19.60	113.67	160.00
Control Column VP81	6.91	7.1	19.50	189.98	360.00
Week 10	**Actual date water quality was taken: 5/3**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP81	7.51	8.58	21.60	135.69	320.00
Amended Cover Column VP81	8.23	9.23	21.60	125.30	220.00
Mixed Placement Column VP81	7.40	8.49	21.50	126.41	180.00
Control Column VP81	7.18	6.51	21.60	207.57	320.00

Housatonic Column Test Water Quality Measurements

Week 11	Actual date water quality was taken: 7/5/2024				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP12-B-C-1/2-BST	6.92	9.99	21.40	67.41	140.00
Amended Cover Column VP12-B-C-1/2-BST	7.08	10.22	21.40	59.55	60.00
Mixed Placement Column VP12-B-C-1/2-BST	7.03	10.16	21.40	49.01	60.00
Control Column VP12-B-C-1/2-BST	6.98	9.9	21.40	66.81	60.00
Week 12	**Actual date water quality was taken: 7/12/24**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP12-B-C-1/2-BST	6.71	9.46	19.80	104.03	140.00
Amended Cover Column VP12-B-C-1/2-BST	6.89	9.70	19.80	60.61	80.00
Mixed Placement Column VP12-B-C-1/2-BST	6.89	9.14	19.80	56.97	60.00
Control Column VP12-B-C-1/2-BST	6.84	9.37	19.90	73.00	60.00
Week 13	**Actual date water quality was taken: 7/19/24**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP12-B-C-1/2-BST	6.75	9.30	20.60	122.01	200.00
Amended Cover Column VP12-B-C-1/2-BST	6.98	9.76	20.80	61.15	60.00
Mixed Placement Column VP12-B-C-1/2-BST	6.99	8.91	20.70	59.02	80.00
Control Column VP12-B-C-1/2-BST	6.94	9.05	20.80	71.72	80.00
Week 14	**Actual date water quality was taken: 7/26/24**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP12-B-C-1/2-BST	7.09	8.74	19.90	144.37	180.00
Amended Cover Column VP12-B-C-1/2-BST	7.32	9.99	19.80	66.81	60.00
Mixed Placement Column VP12-B-C-1/2-BST	6.92	9.02	19.90	65.06	80.00
Control Column VP12-B-C-1/2-BST	7.25	9.28	19.90	85.62	60.00
Week 15	**Actual date water quality was taken: 8/2/24**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP12-B-C-1/2-BST	6.98	9.23	21.10	185.00	220.00
Amended Cover Column VP12-B-C-1/2-BST	7.18	9.67	21.20	76.31	80.00
Mixed Placement Column VP12-B-C-1/2-BST	7.14	8.93	21.30	74.97	80.00
Control Column VP12-B-C-1/2-BST	7.10	9.16	21.30	90.29	80.00

Week 11	Actual date water quality was taken: 5/10				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3[2]**	**Alkalinity mg/L**
Thin Layer Placement Column VP81	7.49	9.90	20.60	133.31	300.00
Amended Cover Column VP81	8.00	9.73	20.60	123.10	180.00
Mixed Placement Column VP81	7.66	9.72	20.60	128.67	180.00
Control Column VP81	7.07	9.35	20.60	186.65	320.00
Week 12	**Actual date water quality was taken: 5/17**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP81	7.36	7.48	19.40	107.78	300.00
Amended Cover Column VP81	8.07	9.37	19.40	108.74	220.00
Mixed Placement Column VP81	7.73	8.71	18.80	113.67	220.00
Control Column VP81	7.46	5.14	18.30	181.75	340.00
Week 13	**Actual date water quality was taken: 5/24**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP81	7.05	8.18	18.50	160.56	280.00
Amended Cover Column VP81	7.43	9.34	18.60	139.35	180.00
Mixed Placement Column VP81	7.44	9.08	18.30	133.31	200.00
Control Column VP81	7.41	5.01	18.50	213.16	300.00
Week 14	**Actual date water quality was taken: 8/2/24**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP81	6.80	9.64	21.20	60.61	100.00
Amended Cover Column VP81	6.93	9.79	21.30	56.47	60.00
Mixed Placement Column VP81	6.98	9.62	21.30	56.47	60.00
Control Column VP81	7.02	9.67	21.40	60.08	60.00
Week 15	**Actual date water quality was taken: 8/9/2024**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP81	6.65	8.81	20.40	73.00	80.00
Amended Cover Column VP81	6.61	8.79	20.40	115.70	60.00
Mixed Placement Column VP81	6.64	8.90	20.40	129.81	60.00
Control Column VP81	6.62	8.78	20.40	127.54	60.00

Housatonic Column Test Water Quality Measurements

Week 16	Actual date water quality was taken: 8/9/2024				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP12-B-C-1/2-BST	6.71	8.64	20.30	301.10	220.00
Amended Cover Column VP12-B-C-1/2-BST	7.12	8.96	20.30	149.58	80.00
Mixed Placement Column VP12-B-C-1/2-BST	7.07	8.64	20.30	152.25	100.00
Control Column VP12-B-C-1/2-BST	6.98	8.43	20.20	211.28	80.00
Week 17	**Actual date water quality was taken: 8/16/24**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP12-B-C-1/2-BST	7.23	10.09	20.20	96.06	200.00
Amended Cover Column VP12-B-C-1/2-BST	7.36	10.58	20.10	65.06	80.00
Mixed Placement Column VP12-B-C-1/2-BST	7.39	10.58	20.20	71.09	80.00
Control Column VP12-B-C-1/2-BST	7.33	9.71	20.20	87.15	60.00
Week 18	**Actual date water quality was taken: 8/23/2024**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP12-B-C-1/2-BST	6.87	8.34	19.30	167.83	260.00
Amended Cover Column VP12-B-C-1/2-BST	6.65	10.10	19.20	76.31	80.00
Mixed Placement Column VP12-B-C-1/2-BST	7.15	9.38	19.40	74.30	80.00
Control Column VP12-B-C-1/2-BST	7.03	9.22	19.50	96.92	100.00
Week 19	**Actual date water quality was taken: 8/30/2024**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP12-B-C-1/2-BST	7.21	9.87	20.60	139.35	200.00
Amended Cover Column VP12-B-C-1/2-BST	7.35	10.15	20.50	49.44	80.00
Mixed Placement Column VP12-B-C-1/2-BST	7.20	10.17	20.50	62.80	80.00
Control Column VP12-B-C-1/2-BST	7.17	9.78	20.80	89.49	100.00
Week 20	**Actual date water quality was taken: 9/6/2024**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP12-B-C-1/2-BST	6.70	8.37	21.20	211.28	240.00
Amended Cover Column VP12-B-C-1/2-BST	7.02	9.59	21.30	100.41	80.00
Mixed Placement Column VP12-B-C-1/2-BST	7.01	8.72	21.30	95.22	80.00
Control Column VP12-B-C-1/2-BST	7.01	9.11	21.30	132.13	100.00

Week 16	Actual date water quality was taken: 8/16/24				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP81	7.53	9.43	20.20	193.38	100.00
Amended Cover Column VP81	7.96	10.14	20.10	226.79	60.00
Mixed Placement Column VP81	7.41	9.40	20.10	87.92	60.00
Control Column VP81	7.24	9.49	20.20	115.70	80.00
Week 17	**Actual date water quality was taken: 8/23/2024**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP81	6.74	10.02	19.50	84.86	120.00
Amended Cover Column VP81	6.89	9.94	19.40	57.99	60.00
Mixed Placement Column VP81	6.90	9.59	19.30	63.36	60.00
Control Column VP81	6.92	9.15	19.30	81.19	80.00
Week 18	**Actual date water quality was taken: 8/30/2024**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP81	7.15	9.90	20.40	101.31	140.00
Amended Cover Column VP81	7.19	9.96	20.60	54.02	60.00
Mixed Placement Column VP81	7.09	9.86	20.60	59.02	80.00
Control Column VP81	7.13	9.55	20.60	78.36	80.00
Week 19	**Actual date water quality was taken: 9/6/24**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP81	7.06	9.49	20.90	136.90	120.00
Amended Cover Column VP81	7.30	9.57	21.00	89.49	60.00
Mixed Placement Column VP81	7.27	9.29	21.10	102.21	100.00
Control Column VP81	7.03	9.14	21.10	123.10	100.00
Week 20	**Actual date water quality was taken: 9/13/2024**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP81	7.40	9.84	19.30	104.03	160.00
Amended Cover Column VP81	7.11	10.04	19.30	61.15	60.00
Mixed Placement Column VP81	7.29	9.54	19.30	71.09	100.00
Control Column VP81	7.17	9.51	19.50	87.15	80.00

Housatonic Column Test Water Quality Measurements

Week 21	Actual date water quality was taken: 9/13/2024				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP12-B-C-1/2-BST	7.38	9.11	19.30	166.35	260.00
Amended Cover Column VP12-B-C-1/2-BST	7.67	9.95	19.20	75.63	80.00
Mixed Placement Column VP12-B-C-1/2-BST	7.51	9.42	19.50	79.06	100.00
Control Column VP12-B-C-1/2-BST	7.41	9.57	19.40	96.92	120.00
Week 22	**Actual date water quality was taken: 9/20/2024**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP12-B-C-1/2-BST	7.87	9.82	20.40	278.03	260.00
Amended Cover Column VP12-B-C-1/2-BST	7.83	10.11	20.60	130.97	80.00
Mixed Placement Column VP12-B-C-1/2-BST	7.33	9.80	20.50	129.81	80.00
Control Column VP12-B-C-1/2-BST	7.55	9.74	20.60	176.99	120.00
Week 23	**Actual date water quality was taken: 9/27/2024**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP12-B-C-1/2-BST	7.35	9.44	19.90	188.31	240.00
Amended Cover Column VP12-B-C-1/2-BST	7.64	9.90	19.80	71.72	80.00
Mixed Placement Column VP12-B-C-1/2-BST	7.49	9.23	19.90	77.67	100.00
Control Column VP12-B-C-1/2-BST	7.60	9.78	19.80	117.77	100.00

Week 21	Actual date water quality was taken: 9/20/2024				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP81	7.53	9.91	20.30	186.65	160.00
Amended Cover Column VP81	7.69	10.05	20.20	76.98	60.00
Mixed Placement Column VP81	7.56	10.14	20.20	105.89	80.00
Control Column VP81	7.31	9.86	20.40	139.35	100.00
Week 22	**Actual date water quality was taken: 9/27/2024**				
Column ID	**pH**	**Dissolved Oxygen mg/L**	**Temperature °C**	**Hardness as mg/L of CacO3**	**Alkalinity mg/L**
Thin Layer Placement Column VP81	7.42	9.93	19.70	128.67	160.00
Amended Cover Column VP81	7.51	9.94	19.80	71.09	60.00
Mixed Placement Column VP81	7.51	10.51	19.90	79.76	100.00
Control Column VP81	7.23	9.72	19.70	92.72	100.00

Notes:

Bolded values are water quality measurements with some exceptions listed below.

1. Water quality measurements were not taken same day they were taken from columns due to scheudling issues resulting in DO discrepancies, all other water quality measurements were taken same day unless otherwise noted.
2. All hardness measurements for VP81 before 3/25 were stored and taken on a later date with a clacium probe due to hach test system errors.
3. These hardness measurements were taken with a hach test system and resulted in system errors or invalid output ranges, all future hardness measurements were taken with a calcium probe instead.

Calculation for hardness as mg/L of CacO3 : A calibration curve was created for the calcium ion probe using known calcium and magnesium concentrations (ug/L) which were tested at Apex analytical laboratories. The calcium ion probe reported hardness in mV, the value was converted to ppm Ca 2+ by the following equation: Hardness as Ca2+ = 10^((mV-1)/26), then the value was converted to mg/L of CacO3 by the following equation: Hardness as mg/L CacO3 = (ppm Ca2+*100)/40. All hardness water quality measurements followed these calculations and final hardness values were reported as mg/L of CacO3.

ID: identification

mg/L: milligram per liter

°C: degrees Celsius

Attachment C
Data Validation Summary Reports

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Data Validation Report – EPA Stage 2A

April 22, 2025

Project: Housatonic Vernal Pool Pilot Study

Project Number: 240469-10.01

Validation ID: AQ-2025-0050

This report summarizes the review of analytical results for 11 sediment samples, and 1 field duplicate sample collected in October 31 through November 2, 2023. The samples were collected by Anchor QEA and submitted to SGS Analytical (SGS) in Dayton, New Jersey. Samples were analyzed for the following parameters:

- Polychlorinated biphenyl Aroclors (PCBs) by U.S. Environmental Protection Agency (EPA) method 8082A
- Total Solids by Standard Method 2540G
- Total Organic Carbon (TOC) by method Lloyd Kahn

Sample IDs, matrices, analyses, and SGS sample delivery group numbers (SDGs) reviewed in this report are presented in Table 1.

Table 1
Sample IDs, SDGs, Matrices, and Analyses

Sample ID	Lab Sample ID	SDG	Matrix	Analyses
TS-BW1	JD77399-11	JD77399	Soil	TOC, PCBs, Total Solids
VP12-B-2/3-1-BST	JD77399-7	JD77399	Soil	TOC, PCBs, Total Solids
VP12-B-C-1/2-BST	JD77399-6	JD77399	Soil	TOC, PCBs, Total Solids
VP12-B-C-1/2-BST-DUP	JD77399-12	JD77399	Soil	TOC, PCBs, Total Solids
VP15-H-12-BST	JD77399-4	JD77399	Soil	TOC, PCBs, Total Solids
VP15-I-15-BST	JD77399-5	JD77399	Soil	TOC, PCBs, Total Solids
VP22-B-4-5-BST	JD77399-8	JD77399	Soil	TOC, PCBs, Total Solids
VP22-D-3-BST	JD77399-9	JD77399	Soil	TOC, PCBs, Total Solids
VP27-F-5-BST	JD77399-10	JD77399	Soil	TOC, PCBs, Total Solids
VP9-V-W-14-BST	JD77399-1	JD77399	Soil	TOC, PCBs, Total Solids
VP9-X-14-BST	JD77399-2	JD77399	Soil	TOC, PCBs, Total Solids
VP9-X-Y-16	JD77399-3	JD77399	Soil	TOC, PCBs, Total Solids

Data Validation and Qualifications

The following comments refer to the laboratory's performance in meeting the quality assurance/ quality control (QA/QC) guidelines outlined in the analytical procedures. Laboratory results were reviewed using the following guidelines:

- Field Sampling Plan/Quality Assurance Project Plan, Revision1 (Arcadis 2023)
- EPA Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846, Third Edition; EPA1986)
- Region I, EPA-New England Data Validation Functional Guidelines for Evaluating Environmental Analyses (EPA 1996)
- EPA National Functional Guidelines for Organic Superfund Methods Data Review (EPA 2020a)
- EPA National Functional Guidelines for Inorganic Superfund Methods Data Review (EPA 2020b)

Unless noted in this report, laboratory results for the samples listed above were within QC criteria.

Field Documentation

Field documentation was checked for completeness and accuracy. The chain-of-custody forms were signed by SGS at the time of sample receipt. Samples were received in good condition and within the recommended temperature range.

Sample Preservation and Holding Times

Samples were appropriately preserved. Samples were analyzed within the holding times with the following exceptions. The TOC analysis was analyzed outside of the 14-day holding time for all samples. The TOC sample results were qualified "J" as estimated.

Laboratory Method Blanks

Laboratory method blanks were analyzed at the required frequencies and were free of target analytes.

Field Quality Control

Field QC included two field duplicates. Field QC samples were collected at the required frequency.

Field Duplicates

One field duplicate was collected in association with this sample set. Detected results are summarized in Table 2. Field duplicate relative percent difference (RPD) values were assessed by the 50% RPD according to the QAPP. Field duplicate RPDs were within control limits.

Table 2
Field Duplicate Summary

Analyte	VP12-B-C-1/2-BST	VP12-B-C-1/2-BST-DUP	RPD
Aroclor 1260	4170 µg/kg	3280 µg/kg	24%
Total organic carbon	34000 mg/kg	40300 mg/kg	17 %
Total solids	53.9%	55.6%	3 %

µg/kg: microgram per kilogram

Surrogate Spike Recoveries

Due to the inability to accurately quantify surrogates when a sample was analyzed at a dilution of 5x or greater, no data were qualified when surrogate recoveries were outside of control limits when a 5X dilution or greater was performed. When surrogate recoveries were outside of the control limits in one column, but results were reported from the other column; no data were qualified. Surrogates recovered outside of control limits in some laboratory QC samples, however; data are not qualified for surrogate outliers in QC samples alone or when outlying surrogates are associated with the non-reporting column. Surrogates recovered within project-required control limits with the following exceptions noted in Table 3.

Table 3
Surrogate Recovery Summary

Sample ID	Parameter	Surrogate	Recovery %	Acceptance Criteria %	Qualifier
VP9-V-W-14-BST	PCBs	DCB	140	10-134	J for all detected results
TS-BW1	PCBs	DCB	137	10-134	None due to 5x dilution
VP9-X-Y-16	PCBs	DCB	137	10-134	J for all detected results
VP15-I-15-BST	PCBs	DCB	142	10-134	J for all detected results
VP12-B-2/3-1-BST	PCBs	DCB	153	10-134	J for all detected results
VP22-B-4-5-BST	PCBs	DCB	151	10-134	J for all detected results
VP22-D-3-BST	PCBs	DCB	176	10-134	J for all detected results

Notes:
DCB: Decachlorobiphenyl

Column Confirmation Results

Second column confirmation results were within method requirements (40% RPD) for detected results.

Laboratory Control Samples and Laboratory Control Sample Duplicates

Laboratory control samples (LCS) and laboratory control sample duplicates (LCSD) were analyzed at the required frequency. LCS and LCSD recoveries and RPD values were within project-required control limits.

Matrix Spike and Matrix Spike Duplicate Samples

Matrix spike (MS) and matrix spike duplicate (MSD) samples were analyzed at the required frequencies. MS/MSD results reported for non-project samples were not evaluated. No data was qualified when native sample concentrations were greater than four times spike concentrations. No data were qualified when the recoveries and/or the RPD values were above the control limits and sample concentrations were not detected. Recoveries and/or RPD values were within project-required control limits with the following exceptions. The MSD was below the control limit for TOC in batch GP50665 analyzed on sample VP15-H-12-BST. All associated batch results were qualified "J" to indicate a potential low bias.

Laboratory Duplicates

Laboratory duplicates were analyzed at the required frequency for total solids analysis and RPD values were within project-required control limits.

Method Reporting Limits

MRLs were acceptable as reported. All values were reported using the laboratory reporting limits. Values were reported as undiluted or when diluted, the reporting limit reflects the dilution factor.

Overall Assessment

As was determined by this evaluation, the laboratory followed the specified analytical methods and all requested sample analyses were completed. Accuracy was acceptable as demonstrated by the surrogate, LCS/LCSD, and MS/MSD recovery values, with the exceptions noted above. Precision was acceptable as demonstrated by the LCS/LCSD, MS/MSD, and laboratory and field duplicate RPD values, with the exceptions noted above. All data are acceptable as reported or qualified. Completeness was 100%; completeness goals were met. Table 4 summarizes the qualifiers applied to the sample results reviewed in this report.

Data Qualifier Definitions

J Indicates an estimated value.

Table 4
Data Qualification Summary

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
TS-BW1	Conventionals	TOC	57400 mg/kg	57400J mg/kg	Holding time exceedance
VP12-B-2/3-1-BST	Conventionals	TOC	38500 mg/kg	38500J mg/kg	Holding time exceedance
	PCBs	Aroclor 1260	2930 µg/kg	2930J µg/kg	Surrogate %R above CL
VP12-B-C-1/2-BST	Conventionals	TOC	34000 mg/kg	34000J mg/kg	Holding time exceedance; MS/MSD %R below CL
VP12-B-C-1/2-BST-DUP	Conventionals	TOC	40300 mg/kg	40300J mg/kg	Holding time exceedance
VP15-H-12-BST	Conventionals	TOC	38500 mg/kg	38500J mg/kg	Holding time exceedance; MS/MSD %R below CL
VP15-I-15-BST	Conventionals	TOC	47900 mg/kg	47900J mg/kg	Holding time exceedance; MS/MSD %R below CL
	PCBs	Aroclor 1260	6850 µg/kg	6850J µg/kg	Surrogate %R above CL
VP22-B-4-5-BST	Conventionals	TOC	19200 mg/kg	19200J mg/kg	Holding time exceedance
	PCBs	Aroclor 1260	2540 µg/kg	2540J µg/kg	Surrogate %R above CL
VP22-D-3-BST	Conventionals	TOC	34500 mg/kg	34500J mg/kg	Holding time exceedance
	PCBs	Aroclor 1260	2730 µg/kg	2730J µg/kg	Surrogate %R above CL
VP27-F-5-BST	Conventionals	TOC	28800 mg/kg	28800J mg/kg	Holding time exceedance
VP9-V-W-14-BST	Conventionals	TOC	39200 mg/kg	39200J mg/kg	Holding time exceedance; MS/MSD %R below CL
	PCBs	Aroclor 1260	3600 µg/kg	3600J µg/kg	Surrogate %R above CL
VP9-X-14-BST	Conventionals	TOC	41100 mg/kg	41100J mg/kg	Holding time exceedance; MS/MSD %R below CL

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
VP9-X-Y-16	Conventionals	TOC	46100 mg/kg	46100J mg/kg	Holding time exceedance; MS/MSD %R below CL
	PCBs	Aroclor 1260	4970 µg/kg	4970J µg/kg	Surrogate %R above CL

Notes:
%R: percent recovery
CL: control limit
µg/kg: microgram per kilogram
mg/kg: milligram per kilogram

References

Arcadis, 2023. *Field Sampling Plan/Quality Assurance Project Plan, Revision 1*. Prepared for General Electric Company, Pittsfield, Massachusetts. December 2023.

EPA (U.S. Environmental Protection Agency), 1986. *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. EPA-530/SW-846.

EPA, 1996. *Region I, EPA-New England Data Validation Functional Guidelines for Evaluating Environmental Analyses*. USEPA-New England, Region I, Quality Assurance Unit Staff, Office of Environmental Measurement and Evaluation. July 1996, Revised December 1996.

EPA, 2020a. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. EPA-540-R-20-006. November 2020.

EPA, 2020b. USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. EPA 540-R-20-005. November 2020.

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ANCHOR QEA

Data Validation Report – EPA Stage 2A

April 23, 2025

Project: Housatonic Vernal Pool Pilot Study

Project Number: 240469-10.01

Validation ID: AQ-2025-0057

This report summarizes the review of analytical results for 10 sediment samples and 1 field duplicate sample collected in December 2023 through February 2024. The samples were collected by Anchor QEA and submitted to SGS Analytical (SGS) in Dayton, New Jersey. Samples were analyzed for the following parameters:

- Polychlorinated biphenyl Aroclors (PCBs) by U.S. Environmental Protection Agency (EPA) method 8082A
- Total Solids by Standard Method 2540G
- Total Organic Carbon (TOC) by method Lloyd Kahn Method

Sample IDs, matrices, analyses, and SGS sample delivery group numbers (SDGs) reviewed in this report are presented in Table 1.

Table 1
Sample IDs, SDGs, Matrices, and Analyses

Sample ID	Lab Sample ID	SDG	Matrix	Analyses
VP9-X/Y-16-BST-2	JD79662-1	JD79662	Soil	TOC, PCBs, Total Solids
VP9-X-14-BST-2	JD79662-2	JD79662	Soil	TOC, PCBs, Total Solids
VP35-I-9-BST	JD79662-3	JD79662	Soil	TOC, PCBs, Total Solids
VP35-J-9/10-BST	JD79662-4	JD79662	Soil	TOC, PCBs, Total Solids
VP40-Q-6/7-BST	JD79662-5	JD79662	Soil	TOC, PCBs, Total Solids
VP40-R-6/7-BST	JD79662-6	JD79662	Soil	TOC, PCBs, Total Solids
VP81-G-10/11-BST	JD79662-7	JD79662	Soil	TOC, PCBs, Total Solids
VP81-G-11-BST	JD79662-8	JD79662	Soil	TOC, PCBs, Total Solids
VP81-G-11-BST-DUP	JD79662-9	JD79662	Soil	TOC, PCBs, Total Solids
VP81-G-10/11-BST-02292024	JD80913-1	JD80913	Soil	PCBs, Total Solids
VP12-B-C-1/2-BST-02292024	JD80913-2	JD80913	Soil	PCBs, Total Solids

Data Validation and Qualifications

The following comments refer to the laboratory's performance in meeting the quality assurance/ quality control (QA/QC) guidelines outlined in the analytical procedures. Laboratory results were reviewed using the following guidelines:

- Field Sampling Plan/Quality Assurance Project Plan, Revision1 (Arcadis 2023)
- EPA Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846, Third Edition; EPA1986)
- Region I, EPA-New England Data Validation Functional Guidelines for Evaluating Environmental Analyses (EPA 1996)
- EPA National Functional Guidelines for Organic Superfund Methods Data Review (EPA 2020a)
- EPA National Functional Guidelines for Inorganic Superfund Methods Data Review (EPA 2020b)

Unless noted in this report, laboratory results for the samples listed above were within QC criteria.

Field Documentation

Field documentation was checked for completeness and accuracy. The chain-of-custody forms were signed by SGS at the time of sample receipt. Samples were received in good condition and within the recommended temperature range.

Sample Preservation and Holding Times

Samples were appropriately preserved and analyzed within the holding times with the following exceptions. The TOC analysis was analyzed outside of the 14-day holding time for samples VP9-X/Y-16-BST-2, VP9-X-14-BST-2, VP35-I-9-BST, VP35-J-9/10-BST, VP40-Q-6/7-BST, and VP40-R-6/7-BST. The TOC results were qualified "J" as estimated.

Laboratory Method Blanks

Laboratory method blanks were analyzed at the required frequencies and were free of target analytes.

Field Quality Control

Field QC included two field duplicates. Field QC samples were collected at the required frequency.

Field Duplicates

Two field duplicates were collected in association with these sample sets. Detected results are summarized in Table 2. Field duplicate relative percent difference (RPD) values were assessed by the

50% RPD according to the QAPP. Results that were less than five times the method reporting limit (MRL) were assessed by the difference between them using ± two times the MRL as the control limit. Field duplicate RPD or difference values were within control limits.

Table 2
Field Duplicate Summary

Analyte	VP81-G-11-BST	VP81-G-11-BST-DUP	RPD
Aroclor 1260	11200 µg/kg	13600 µg/kg	19 %
TOC	47400 mg/kg	43600 mg/kg	8%
Total solids	46.3%	48.0%	4%

Surrogate Spike and Internal Standard Recoveries

Due to the inability to accurately quantify surrogates when a sample was analyzed at a dilution of 5x or greater, no data were qualified when surrogate recoveries were outside of control limits when a 5X dilution or greater was performed. When surrogate recoveries were outside of the control limits in one column, but results were reported from the other column; no data were qualified. Surrogates recovered outside of control limits in some laboratory QC samples, however; data are not qualified for surrogate outliers in QC samples alone or when outlying surrogates are associated with the non-reporting column. Surrogates recovered within project-required control limits with the following exceptions noted in Table 3.

Table 3
Surrogate Recovery Summary

Sample ID	Parameter	Surrogate	Recovery %	Acceptance Criteria %	Qualifier
VP12-B-C-1/2-BST-02292024	PCBs	DCB	174	10-134	J for all detected results
VP81-G-10/11-BST	PCBs	DCB	135	10-134	J for all detected results
VP81-G-10/11-BST-02292024	PCBs	DCB	138	10-134	J for all detected results
VP9-X/Y-16-BST-2	PCBs	DCB	140	10-134	J for all detected results

Notes:
DCB: Decachlorobiphenyl

Column Confirmation Results

Second column confirmation results were within method requirements (40% RPD) for detected results with one exception. The Aroclor 1254 result for sample VP9-X-14-BST-2 had a RPD above 40%. The sample result was qualified "J" as estimated.

Laboratory Control Samples and Laboratory Control Sample Duplicates

Laboratory control samples (LCS) and laboratory control sample duplicates (LCSD) were analyzed at the required frequency. LCS and LCSD recoveries and RPD values were within project-required control limits.

Matrix Spike and Matrix Spike Duplicate Samples

Matrix spike (MS) and matrix spike duplicate (MSD) samples were analyzed at the required frequencies. MS/MSD results reported for non-project samples were not evaluated. No data were qualified when native sample concentrations were greater than four times spike concentrations. No data were qualified when the recoveries and/or the RPD values were above the control limits and sample concentrations were not detected. Recoveries and/or RPD values were within project-required control limits with the following exception. The MSD recovered below the control limit for TOC in batch GP51283. All associated sample results were qualified "J" to indicate a potential low bias.

Laboratory Duplicates

Laboratory duplicates were analyzed at the required frequency for total solids analysis and RPD values were within project-required control limits.

Method Reporting Limits

MRLs were acceptable as reported. All values were reported using the laboratory reporting limits. Values were reported as undiluted or when diluted, the reporting limit reflects the dilution factor.

Overall Assessment

As was determined by this evaluation, the laboratory followed the specified analytical methods and all requested sample analyses were completed. Accuracy was acceptable as demonstrated by the surrogate, LCS/LCSD, and MS/MSD recovery values, with the exceptions noted above. Precision was acceptable as demonstrated by the LCS/LCSD, MS/MSD, and laboratory and field duplicate RPD or difference values, with the exceptions noted above. All data are acceptable as reported or qualified. Completeness was 100%; completeness goals were met. Table 4 summarizes the qualifiers applied to the sample results reviewed in this report.

Data Qualifier Definitions

J Indicates an estimated value.

Table 4
Data Qualification Summary

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
VP35-I-9-BST	Conventionals	TOC	32300 mg/kg	32300J mg/kg	Holding time exceedance; MSD %R below CL
	PCBs	Aroclor 1254	3640 µg/kg	3640J µg/kg	Surrogate %R above CL
		Aroclor 1260	6700 µg/kg	6700J µg/kg	
VP35-J-9/10-BST	Conventionals	TOC	28500 mg/kg	28500J mg/kg	Holding time exceedance; MSD %R below CL
VP40-Q-6/7-BST	Conventionals	TOC	38800 mg/kg	38800J mg/kg	Holding time exceedance; MSD %R below CL
	PCBs	Aroclor 1254	2670 µg/kg	2670J µg/kg	Surrogate %R above CL
		Aroclor 1260	5300 µg/kg	5300J µg/kg	
VP40-R-6/7-BST	Conventionals	TOC	22200 mg/kg	22200J mg/kg	Holding time exceedance; MSD %R below CL
VP81-G-10/11-BST	Conventionals	TOC	26000 mg/kg	26000J mg/kg	MSD %R below CL
	PCBs	Aroclor 1260	19000 µg/kg	19000J µg/kg	Surrogate %R above CL
VP81-G-11-BST	Conventionals	TOC	47400 mg/kg	47400J mg/kg	MSD %R below CL
VP81-G-11-BST-DUP	Conventionals	TOC	43600 mg/kg	43600J mg/kg	MSD %R below CL
VP9-X/Y-16-BST-2	Conventionals	TOC	38000 mg/kg	38000J mg/kg	Holding time exceedance; MSD %R below CL
	PCBs	Aroclor 1254	3760 µg/kg	3760J µg/kg	Surrogate %R above CL
		Aroclor 1260	5470 µg/kg	5470J µg/kg	
VP9-X-14-BST-2	Conventionals	TOC	32300 mg/kg	32300J mg/kg	Holding time exceedance; MSD %R below CL

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
	PCBs	Aroclor 1254	901J µg/kg	901J µg/kg	Column Confirmation RPD above CL; Surrogate %R above CL
		Aroclor 1260	1950 µg/kg	1950J µg/kg	Surrogate %R above CL

Notes:
%R: percent recovery
CL: control limit
µg/kg: microgram per kilogram
mg/kg: milligram per kilogram

References

Arcadis, 2023. *Field Sampling Plan/Quality Assurance Project Plan, Revision 1*. Prepared for General Electric Company, Pittsfield, Massachusetts. December 2023.

EPA (U.S. Environmental Protection Agency), 1986. *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. EPA-530/SW-846.

EPA, 1996. *Region I, EPA-New England Data Validation Functional Guidelines for Evaluating Environmental Analyses*. USEPA-New England, Region I, Quality Assurance Unit Staff, Office of Environmental Measurement and Evaluation. July 1996, Revised December 1996.

EPA, 2020a. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. EPA-540-R-20-006. November 2020.

EPA, 2020b. USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. EPA 540-R-20-005. November 2020.

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Data Validation Report – EPA Stage 2A

April 23, 2025

Project: Housatonic Vernal Pool Pilot Study

Project Number: 240469-10.01

Validation ID: AQ-2025-0058

This report summarizes the review of analytical results for 4 soil samples and 20 solid-phase microextraction (SPME) fiber samples collected between October 2023 and May 2024. The samples were collected by Anchor QEA and submitted to SGS Analytical (SGS) in Wilmington, North Carolina. Samples were analyzed for the following parameters:

- Polychlorinated biphenyls congeners (PCBs) by U.S. Environmental Protection Agency (EPA) method 1668C

Sample IDs, matrices, analyses, and SGS sample delivery group numbers (SDGs) reviewed in this report are presented in Table 1.

Table 1
Sample IDs, SDGs, Matrices, and Analyses

Sample ID	Lab Sample ID	SDG	Matrix	Analyses (Methods)
VP12-B-C-1/2-BST	B9060_20860_PCB_002-D10	B9060	Soil	PCBs
VP81-G-10/11-BST	B9060_20860_PCB_001-D10	B9060	Soil	PCBs
HOUS-COL-PW-SPME-MB-240226	B9179_20959_PCB_001	B9179	SPME	PCBs
HOUS-COL-PW-SPME-PRC-QC-1-240226	B9179_20959_PCB_002	B9179	SPME	PCBs
HOUS-COL-PW-SPME-PRC-QC-2-240226	B9179_20959_PCB_003	B9179	SPME	PCBs
HOUS-COL-PW-SPME-PRC-QC-3-240226	B9179_20959_PCB_004	B9179	SPME	PCBs
HOUS-COL-PW-SPME-PRC-QC-4-240226	B9179_20959_PCB_005	B9179	SPME	PCBs
VP40-R-6-7-BST-02292024	B9188_20955_PCB_001-D10	B9188	Soil	PCBs
VP9-X-Y-16-BST-02292024	B9188_20955_PCB_002-D10	B9188	Soil	PCBs
HOUS-COL-PW-SPME-PRC-QC-1-240312	B9210_20970_PCB_001	B9210	SPME	PCBs
HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	B9243_20992_PCB_002	B9243	SPME	PCBs

Sample ID	Lab Sample ID	SDG	Matrix	Analyses (Methods)
HOUS-COL-VP81-CTRL-BL-PW-SPME-240326	B9243_20992_PCB_004	B9243	SPME	PCBs
HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	B9243_20992_PCB_003	B9243	SPME	PCBs
HOUS-COL-VP81-THIN-BL-PW-SPME-240326	B9243_20992_PCB_001	B9243	SPME	PCBs
HOUS-COL-VP12-AMEND-WET1-PW-SPME-240416	B9302_21061_PCB_002	B9302	SPME	PCBs
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	B9302_21061_PCB_004	B9302	SPME	PCBs
HOUS-COL-VP12-MIXED-WET1-PW-SPME-240416	B9302_21061_PCB_003	B9302	SPME	PCBs
HOUS-COL-VP12-THIN-WET1-PW-SPME-240416	B9302_21061_PCB_001	B9302	SPME	PCBs
HOUS-COL-PW-SPME-PRC-QC-1-240425	B9347_21091_PCB_001	B9347	SPME	PCBs
HOUS-COL-PW-SPME-PRC-QC-1-240515	B9432_21136_PCB_001-RJ	B9432	SPME	PCBs
HOUS-COL-VP81-AMEND-WET1-PW-SPME-240528	B9475_21172_PCB_002-AR1	B9475	SPME	PCBs
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	B9475_21172_PCB_004-RJ	B9475	SPME	PCBs
HOUS-COL-VP81-MIXED-WET1-PW-SPME-240528	B9475_21172_PCB_003-RJ	B9475	SPME	PCBs
HOUS-COL-VP81-THIN-WET1-PW-SPME-240528	B9475_21172_PCB_001-AR1	B9475	SPME	PCBs

Data Validation and Qualifications

The following comments refer to the laboratory's performance in meeting the quality assurance/ quality control (QA/QC) guidelines outlined in the analytical procedures. Laboratory results were reviewed using the following guidelines:

- Field Sampling Plan/Quality Assurance Project Plan, Revision1 (Arcadis 2023)
- EPA Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846, Third Edition; EPA1986)
- Region I, EPA-New England Data Validation Functional Guidelines for Evaluating Environmental Analyses (EPA 1996)
- EPA National Functional Guidelines for High Resolution Superfund Methods Data Review (EPA 2020)

Unless noted in this report, laboratory results for the samples listed above were within QC criteria.

Field Documentation

Field documentation was checked for completeness and accuracy. The chain-of-custody forms were signed by SGS at the time of sample receipt. Samples were received in good condition and within the recommended temperature range.

Sample Preservation and Holding Times

Samples were appropriately preserved and analyzed within the holding times.

Laboratory Method Blanks

Laboratory method blanks were analyzed at the required frequencies. PCBs were detected in every method blank. In instances where the sample concentration was not significantly greater than (5x greater than) the concentration of the method blank, the sample result was qualified "U".

Field Quality Control

Field QC included SPME method blanks. Field QC samples were collected at the required frequency.

SPME Method Blanks

One SPME method blank was collected in association with these sample sets and analyzed for PCBs. Several PCBs had detected results as shown in Table 2. Using professional judgment, no qualifiers were applied to the sample results since additional calculations will be performed on the samples. The concentrations of the PCBs in this method blank should be considered when evaluating the SPME data.

Table 2
SPME Method Blank Concentrations

Sample ID	Analyte	Result
HOUS-COL-PW-SPME-MB-240226	PCB-004	33.1 pg
	PCB-005	13.1 pg
	PCB-006	12.4 pg
	PCB-007	8.7 pg
	PCB-008	27 pg
	PCB-010	16.5 pg
	PCB-011	88.2 pg
	PCB-012/013	17.8 pg
	PCB-015	14.7 pg
	PCB-017	34.4 pg

Sample ID	Analyte	Result
	PCB-018/030	41.4 pg
	PCB-020/028	63.5 pg
	PCB-021/033	40.1 pg
	PCB-022	26.6 pg
	PCB-026/029	31.9 pg
	PCB-031	54.1 pg
	PCB-032	26.3 pg
	PCB-037	26.1 pg
	PCB-040/071	35.9 pg
	PCB-042	25.5 pg
	PCB-044/047/065	87.2 pg
	PCB-045	9.88 pg
	PCB-048	23.2 pg
	PCB-049/069	45.5 pg
	PCB-050/053	16.7 pg
	PCB-051	12.9 pg
	PCB-052	82.9 pg
	PCB-054	6.68 pg
	PCB-056	27.7 pg
	PCB-059/062/075	29 pg
	PCB-061/070/074/076	130 pg
	PCB-064	33 pg
	PCB-066	40.4 pg
	PCB-073	5.99 pg
	PCB-084	38 pg
	PCB-085/116	41.2 pg
	PCB-086/087/097/109/119/125	138 pg
	PCB-090/101/113	216 pg
	PCB-091	34.4 pg
	PCB-092	36.9 pg
	PCB-095	151 pg
	PCB-099	77.1 pg
	PCB-105	42.9 pg
	PCB-110	185 pg
	PCB-118	96.1 pg
	PCB-128/166	54.8 pg
	PCB-129/138/163	193 pg

Sample ID	Analyte	Result
	PCB-130	38 pg
	PCB-132	93.5 pg
	PCB-135/151	112 pg
	PCB-136	33.9 pg
	PCB-141	47.7 pg
	PCB-146	25.5 pg
	PCB-147/149	198 pg
	PCB-153/168	177 pg
	PCB-158	37.1 pg
	PCB-164	20.8 pg
	PCB-174	57 pg
	PCB-179	26.1 pg
	PCB-180/193	107 pg
	PCB-183	45.9 pg
	PCB-187	67.5 pg

Surrogates and Labeled Compounds Recoveries

Due to the inability to accurately quantify surrogates and labeled compounds when a sample was analyzed at a dilution of 5x or greater, no data were qualified when surrogate recoveries were outside of control limits. When surrogate recoveries were outside of the control limits in one column, but results were reported from the other column; no data were qualified. Surrogates recovered outside of control limits in some laboratory QC samples, however; data are not qualified for surrogate outliers in QC samples alone or when outlying surrogates are associated with the non-reporting column. Surrogates and labeled compounds recovered within project-required control limits with the following exceptions. The labeled compounds for PCB-077, PCB-126, and PCB-169 recovered below the acceptance limits for HOUS-COL-VP81-AMEND-WET1-PW-SPME-240528 and PCB-126 and PCB-169 recovered below the acceptance limits for HOUS-COL-VP81-THIN-WET1-PW-SPME-240528. Associated sample results were qualified “J” or “UJ” to indicate a potential low bias.

Laboratory Control Samples

Laboratory control samples (LCS) were analyzed at the required frequency. LCS recoveries were within project-required control limits.

Matrix Spike and Matrix Spike Duplicate Samples

Matrix spike (MS) and matrix spike duplicate (MSD) samples were not required for analysis since labeled compounds were added to all samples.

Laboratory Duplicates

Laboratory duplicates were not required to be analyzed for these sample sets.

Method Reporting Limits

MRLs were acceptable as reported. All values were reported using the laboratory reporting limits. Values were reported as undiluted or when diluted, the reporting limit reflects the dilution factor.

Sample Analyses

Several results were noted by the laboratory to have exceeded the calibration. These results were qualified "J" as estimated.

Estimated Maximum Possible Concentration

Some PCB congener results were flagged as estimated maximum possible concentration (EMPC) due to results that do not meet all method qualitative criteria for positive identification. Results have been qualified "J" to indicate they are estimated.

Overall Assessment

As was determined by this evaluation, the laboratory followed the specified analytical methods and all requested sample analyses were completed. Accuracy was acceptable as demonstrated by the surrogate, labeled compound, and LCS recovery values, with the exceptions noted above. All data are acceptable as reported or qualified. Completeness was 100%; completeness goals were met. Table 3 summarizes the qualifiers applied to the sample results reviewed in this report.

Data Qualifier Definitions

U Indicates the compound or analyte was analyzed for but not detected at or above the specified limit.

J Indicates an estimated value.

UJ Indicates the compound or analyte was analyzed for but not detected and the specified limit reported is estimated.

Table 3
Data Qualification Summary

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
Various	PCBs	Various	Various	Various	EMPC
HOUS-COL-PW-SPME-MB-240226	PCBs	PCB-129/138/163	193 pg	193U pg	Method blank contamination
HOUS-COL-PW-SPME-MB-240226	PCBs	PCB-153/168	177 pg	177U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240226	PCBs	PCB-110	141 pg	141U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240226	PCBs	PCB-129/138/163	177 pg	177U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240226	PCBs	PCB-153/168	153 pg	153U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240312	PCBs	PCB-001	13.3J pg	13.3U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240312	PCBs	PCB-004	20.9 pg	20.9U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240312	PCBs	PCB-008	26.6 pg	26.6U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240312	PCBs	PCB-011	53.6 pg	53.6U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240312	PCBs	PCB-153/168	21J pg	21U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240312	PCBs	PCB-180/193	18.4J pg	18.4U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240312	PCBs	PCB-129/138/163	21.6JEMPC pg	21.6UJ pg	Method blank contamination; EMPC
HOUS-COL-PW-SPME-PRC-QC-1-240312	PCBs	PCB-147/149	12.9JEMPC pg	12.9UJ pg	Method blank contamination; EMPC
HOUS-COL-PW-SPME-PRC-QC-1-240425	PCBs	PCB-011	27.1 pg	27.1U pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-PW-SPME-PRC-QC-1-240425	PCBs	PCB-020/028	40.6 pg	40.6U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240425	PCBs	PCB-052	32.3 pg	32.3U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240425	PCBs	PCB-077	30.4 pg	30.4U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240425	PCBs	PCB-090/101/113	32.2J pg	32.2U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240425	PCBs	PCB-105	23.4 pg	23.4U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240425	PCBs	PCB-114	18.9J pg	18.9U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240425	PCBs	PCB-129/138/163	62.1 pg	62.1U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240425	PCBs	PCB-180/193	39.1J pg	39.1U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240425	PCBs	PCB-126	19JEMPC pg	19UJ pg	Method blank contamination; EMPC
HOUS-COL-PW-SPME-PRC-QC-1-240425	PCBs	PCB-153/168	27.3JEMPC pg	27.3UJ pg	Method blank contamination; EMPC
HOUS-COL-PW-SPME-PRC-QC-1-240425	PCBs	PCB-183	10.4JEMPC pg	10.4UJ pg	Method blank contamination; EMPC
HOUS-COL-PW-SPME-PRC-QC-1-240425	PCBs	PCB-189	7.38JEMPC pg	7.38UJ pg	Method blank contamination; EMPC
HOUS-COL-PW-SPME-PRC-QC-1-240515	PCBs	PCB-011	39.7 pg	39.7U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-3-240226	PCBs	PCB-011	50.5 pg	50.5U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-3-240226	PCBs	PCB-110	33.8 pg	33.8U pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-PW-SPME-PRC-QC-3-240226	PCBs	PCB-118	24.7 pg	24.7U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-3-240226	PCBs	PCB-153/168	36.9J pg	36.9U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-3-240226	PCBs	PCB-090/101/113	29.9JEMPC pg	29.9UJ pg	Method blank contamination; EMPC
HOUS-COL-PW-SPME-PRC-QC-3-240226	PCBs	PCB-129/138/163	45JEMPC pg	45UJ pg	Method blank contamination; EMPC
HOUS-COL-PW-SPME-PRC-QC-3-240226	PCBs	PCB-147/149	39.7JEMPC pg	39.7UJ pg	Method blank contamination; EMPC
HOUS-COL-PW-SPME-PRC-QC-4-240226	PCBs	PCB-011	39.4 pg	39.4U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-4-240226	PCBs	PCB-090/101/113	42.4J pg	42.4U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-4-240226	PCBs	PCB-110	48.1 pg	48.1U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-4-240226	PCBs	PCB-129/138/163	55.8J pg	55.8U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-4-240226	PCBs	PCB-153/168	45.9 pg	45.9U pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-4-240226	PCBs	PCB-095	29.1EMPC pg	29.1UJ pg	Method blank contamination; EMPC
HOUS-COL-PW-SPME-PRC-QC-4-240226	PCBs	PCB-118	23.5EMPC pg	23.5UJ pg	Method blank contamination; EMPC
HOUS-COL-PW-SPME-PRC-QC-4-240226	PCBs	PCB-147/149	27.8JEMPC pg	27.8UJ pg	Method blank contamination; EMPC
HOUS-COL-VP12-AMEND-WET1-PW-SPME-240416	PCBs	PCB-180/193	18.2J pg	18.2U pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET1-PW-SPME-240416	PCBs	PCB-153/168	13.1JEMPC pg	13.1UJ pg	Method blank contamination; EMPC

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	PCBs	PCB-052	308000 pg	308000J pg	Calibration Exceeded
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	PCBs	PCB-084	120000 pg	120000J pg	Calibration Exceeded
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	PCBs	PCB-090/101/113	880000 pg	880000J pg	Calibration Exceeded
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	PCBs	PCB-091	117000 pg	117000J pg	Calibration Exceeded
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	PCBs	PCB-092	218000 pg	218000J pg	Calibration Exceeded
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	PCBs	PCB-095	867000 pg	867000J pg	Calibration Exceeded
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	PCBs	PCB-099	254000 pg	254000J pg	Calibration Exceeded
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	PCBs	PCB-110	575000 pg	575000J pg	Calibration Exceeded
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	PCBs	PCB-118	202000 pg	202000J pg	Calibration Exceeded
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	PCBs	PCB-129/138/163	971000 pg	971000J pg	Calibration Exceeded
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	PCBs	PCB-132	369000 pg	369000J pg	Calibration Exceeded
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	PCBs	PCB-135/151	713000 pg	713000J pg	Calibration Exceeded
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	PCBs	PCB-136	294000 pg	294000J pg	Calibration Exceeded
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	PCBs	PCB-141	273000 pg	273000J pg	Calibration Exceeded
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	PCBs	PCB-146	169000 pg	169000J pg	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	PCBs	PCB-147/149	1150000 pg	1150000J pg	Calibration Exceeded
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	PCBs	PCB-153/168	959000 pg	959000J pg	Calibration Exceeded
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	PCBs	PCB-158	83800 pg	83800J pg	Calibration Exceeded
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	PCBs	PCB-170	193000 pg	193000J pg	Calibration Exceeded
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	PCBs	PCB-174	317000 pg	317000J pg	Calibration Exceeded
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	PCBs	PCB-177	168000 pg	168000J pg	Calibration Exceeded
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	PCBs	PCB-178	81900 pg	81900J pg	Calibration Exceeded
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	PCBs	PCB-179	187000 pg	187000J pg	Calibration Exceeded
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	PCBs	PCB-180/193	481000 pg	481000J pg	Calibration Exceeded
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	PCBs	PCB-183	163000 pg	163000J pg	Calibration Exceeded
HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	PCBs	PCB-187	354000 pg	354000J pg	Calibration Exceeded
HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	PCBs	PCB-084	88000 pg	88000J pg	Calibration Exceeded
HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	PCBs	PCB-090/101/113	609000 pg	609000J pg	Calibration Exceeded
HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	PCBs	PCB-091	102000 pg	102000J pg	Calibration Exceeded
HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	PCBs	PCB-092	161000 pg	161000J pg	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	PCBs	PCB-095	680000 pg	680000J pg	Calibration Exceeded
HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	PCBs	PCB-099	171000 pg	171000J pg	Calibration Exceeded
HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	PCBs	PCB-110	388000 pg	388000J pg	Calibration Exceeded
HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	PCBs	PCB-118	81200 pg	81200J pg	Calibration Exceeded
HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	PCBs	PCB-129/138/163	795000 pg	795000J pg	Calibration Exceeded
HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	PCBs	PCB-132	293000 pg	293000J pg	Calibration Exceeded
HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	PCBs	PCB-135/151	580000 pg	580000J pg	Calibration Exceeded
HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	PCBs	PCB-136	227000 pg	227000J pg	Calibration Exceeded
HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	PCBs	PCB-141	221000 pg	221000J pg	Calibration Exceeded
HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	PCBs	PCB-146	136000 pg	136000J pg	Calibration Exceeded
HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	PCBs	PCB-147/149	987000 pg	987000J pg	Calibration Exceeded
HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	PCBs	PCB-153/168	836000 pg	836000J pg	Calibration Exceeded
HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	PCBs	PCB-170	170000 pg	170000J pg	Calibration Exceeded
HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	PCBs	PCB-174	270000 pg	270000J pg	Calibration Exceeded
HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	PCBs	PCB-177	143000 pg	143000J pg	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	PCBs	PCB-179	165000 pg	165000J pg	Calibration Exceeded
HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	PCBs	PCB-180/193	445000 pg	445000J pg	Calibration Exceeded
HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	PCBs	PCB-183	152000 pg	152000J pg	Calibration Exceeded
HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	PCBs	PCB-187	316000 pg	316000J pg	Calibration Exceeded
HOUS-COL-VP81-AMEND-WET1-PW-SPME-240528	PCBs	PCB-126	136U pg	136UJ pg	Labeled compound %R below CL
HOUS-COL-VP81-AMEND-WET1-PW-SPME-240528	PCBs	PCB-169	210U pg	210UJ pg	Labeled compound %R below CL
HOUS-COL-VP81-AMEND-WET1-PW-SPME-240528	PCBs	PCB-061/070/074/076	259EMPC pg	259J pg	Labeled compound %R below CL; EMPC
HOUS-COL-VP81-AMEND-WET1-PW-SPME-240528	PCBs	PCB-086/087/097/109/119/125	14.8JEMPC pg	14.8UJ pg	Method blank contamination; EMPC
HOUS-COL-VP81-CTRL-BL-PW-SPME-240326	PCBs	PCB-084	94000 pg	94000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-BL-PW-SPME-240326	PCBs	PCB-090/101/113	654000 pg	654000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-BL-PW-SPME-240326	PCBs	PCB-091	109000 pg	109000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-BL-PW-SPME-240326	PCBs	PCB-092	171000 pg	171000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-BL-PW-SPME-240326	PCBs	PCB-095	726000 pg	726000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-BL-PW-SPME-240326	PCBs	PCB-099	182000 pg	182000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-BL-PW-SPME-240326	PCBs	PCB-110	414000 pg	414000J pg	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-VP81-CTRL-BL-PW-SPME-240326	PCBs	PCB-118	87500 pg	87500J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-BL-PW-SPME-240326	PCBs	PCB-129/138/163	812000 pg	812000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-BL-PW-SPME-240326	PCBs	PCB-132	294000 pg	294000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-BL-PW-SPME-240326	PCBs	PCB-135/151	578000 pg	578000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-BL-PW-SPME-240326	PCBs	PCB-136	245000 pg	245000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-BL-PW-SPME-240326	PCBs	PCB-141	224000 pg	224000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-BL-PW-SPME-240326	PCBs	PCB-146	137000 pg	137000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-BL-PW-SPME-240326	PCBs	PCB-147/149	1000000 pg	1000000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-BL-PW-SPME-240326	PCBs	PCB-153/168	862000 pg	862000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-BL-PW-SPME-240326	PCBs	PCB-170	182000 pg	182000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-BL-PW-SPME-240326	PCBs	PCB-174	293000 pg	293000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-BL-PW-SPME-240326	PCBs	PCB-177	153000 pg	153000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-BL-PW-SPME-240326	PCBs	PCB-179	167000 pg	167000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-BL-PW-SPME-240326	PCBs	PCB-180/193	480000 pg	480000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-BL-PW-SPME-240326	PCBs	PCB-183	160000 pg	160000J pg	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-VP81-CTRL-BL-PW-SPME-240326	PCBs	PCB-187	342000 pg	342000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	PCBs	PCB-052	86700 pg	86700J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	PCBs	PCB-084	102000 pg	102000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	PCBs	PCB-090/101/113	757000 pg	757000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	PCBs	PCB-091	110000 pg	110000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	PCBs	PCB-092	184000 pg	184000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	PCBs	PCB-095	788000 pg	788000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	PCBs	PCB-099	198000 pg	198000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	PCBs	PCB-110	506000 pg	506000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	PCBs	PCB-118	104000 pg	104000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	PCBs	PCB-129/138/163	871000 pg	871000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	PCBs	PCB-132	306000 pg	306000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	PCBs	PCB-135/151	618000 pg	618000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	PCBs	PCB-136	309000 pg	309000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	PCBs	PCB-141	219000 pg	219000J pg	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	PCBs	PCB-146	137000 pg	137000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	PCBs	PCB-147/149	936000 pg	936000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	PCBs	PCB-153/168	800000 pg	800000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	PCBs	PCB-170	209000 pg	209000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	PCBs	PCB-174	302000 pg	302000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	PCBs	PCB-177	152000 pg	152000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	PCBs	PCB-178	89800 pg	89800J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	PCBs	PCB-179	214000 pg	214000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	PCBs	PCB-180/193	502000 pg	502000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	PCBs	PCB-183	174000 pg	174000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	PCBs	PCB-187	396000 pg	396000J pg	Calibration Exceeded
HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	PCBs	PCB-011	29.5 pg	29.5U pg	Method blank contamination
HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	PCBs	PCB-084	92400 pg	92400J pg	Calibration Exceeded
HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	PCBs	PCB-090/101/113	646000 pg	646000J pg	Calibration Exceeded
HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	PCBs	PCB-091	109000 pg	109000J pg	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	PCBs	PCB-092	169000 pg	169000J pg	Calibration Exceeded
HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	PCBs	PCB-095	723000 pg	723000J pg	Calibration Exceeded
HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	PCBs	PCB-099	181000 pg	181000J pg	Calibration Exceeded
HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	PCBs	PCB-110	405000 pg	405000J pg	Calibration Exceeded
HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	PCBs	PCB-118	86200 pg	86200J pg	Calibration Exceeded
HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	PCBs	PCB-129/138/163	812000 pg	812000J pg	Calibration Exceeded
HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	PCBs	PCB-132	297000 pg	297000J pg	Calibration Exceeded
HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	PCBs	PCB-135/151	597000 pg	597000J pg	Calibration Exceeded
HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	PCBs	PCB-136	250000 pg	250000J pg	Calibration Exceeded
HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	PCBs	PCB-141	222000 pg	222000J pg	Calibration Exceeded
HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	PCBs	PCB-146	137000 pg	137000J pg	Calibration Exceeded
HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	PCBs	PCB-147/149	1030000 pg	1030000J pg	Calibration Exceeded
HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	PCBs	PCB-153/168	857000 pg	857000J pg	Calibration Exceeded
HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	PCBs	PCB-170	180000 pg	180000J pg	Calibration Exceeded
HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	PCBs	PCB-174	279000 pg	279000J pg	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	PCBs	PCB-177	146000 pg	146000J pg	Calibration Exceeded
HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	PCBs	PCB-179	167000 pg	167000J pg	Calibration Exceeded
HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	PCBs	PCB-180/193	451000 pg	451000J pg	Calibration Exceeded
HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	PCBs	PCB-183	155000 pg	155000J pg	Calibration Exceeded
HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	PCBs	PCB-187	329000 pg	329000J pg	Calibration Exceeded
HOUS-COL-VP81-MIXED-WET1-PW-SPME-240528	PCBs	PCB-011	22.2 pg	22.2U pg	Method blank contamination
HOUS-COL-VP81-THIN-BL-PW-SPME-240326	PCBs	PCB-084	91600 pg	91600J pg	Calibration Exceeded
HOUS-COL-VP81-THIN-BL-PW-SPME-240326	PCBs	PCB-090/101/113	635000 pg	635000J pg	Calibration Exceeded
HOUS-COL-VP81-THIN-BL-PW-SPME-240326	PCBs	PCB-091	108000 pg	108000J pg	Calibration Exceeded
HOUS-COL-VP81-THIN-BL-PW-SPME-240326	PCBs	PCB-092	168000 pg	168000J pg	Calibration Exceeded
HOUS-COL-VP81-THIN-BL-PW-SPME-240326	PCBs	PCB-095	711000 pg	711000J pg	Calibration Exceeded
HOUS-COL-VP81-THIN-BL-PW-SPME-240326	PCBs	PCB-099	177000 pg	177000J pg	Calibration Exceeded
HOUS-COL-VP81-THIN-BL-PW-SPME-240326	PCBs	PCB-110	399000 pg	399000J pg	Calibration Exceeded
HOUS-COL-VP81-THIN-BL-PW-SPME-240326	PCBs	PCB-118	85200 pg	85200J pg	Calibration Exceeded
HOUS-COL-VP81-THIN-BL-PW-SPME-240326	PCBs	PCB-129/138/163	835000 pg	835000J pg	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-VP81-THIN-BL-PW-SPME-240326	PCBs	PCB-132	304000 pg	304000J pg	Calibration Exceeded
HOUS-COL-VP81-THIN-BL-PW-SPME-240326	PCBs	PCB-135/151	608000 pg	608000J pg	Calibration Exceeded
HOUS-COL-VP81-THIN-BL-PW-SPME-240326	PCBs	PCB-136	240000 pg	240000J pg	Calibration Exceeded
HOUS-COL-VP81-THIN-BL-PW-SPME-240326	PCBs	PCB-141	233000 pg	233000J pg	Calibration Exceeded
HOUS-COL-VP81-THIN-BL-PW-SPME-240326	PCBs	PCB-146	143000 pg	143000J pg	Calibration Exceeded
HOUS-COL-VP81-THIN-BL-PW-SPME-240326	PCBs	PCB-147/149	1050000 pg	1050000J pg	Calibration Exceeded
HOUS-COL-VP81-THIN-BL-PW-SPME-240326	PCBs	PCB-153/168	872000 pg	872000J pg	Calibration Exceeded
HOUS-COL-VP81-THIN-BL-PW-SPME-240326	PCBs	PCB-170	180000 pg	180000J pg	Calibration Exceeded
HOUS-COL-VP81-THIN-BL-PW-SPME-240326	PCBs	PCB-174	284000 pg	284000J pg	Calibration Exceeded
HOUS-COL-VP81-THIN-BL-PW-SPME-240326	PCBs	PCB-177	150000 pg	150000J pg	Calibration Exceeded
HOUS-COL-VP81-THIN-BL-PW-SPME-240326	PCBs	PCB-179	166000 pg	166000J pg	Calibration Exceeded
HOUS-COL-VP81-THIN-BL-PW-SPME-240326	PCBs	PCB-180/193	467000 pg	467000J pg	Calibration Exceeded
HOUS-COL-VP81-THIN-BL-PW-SPME-240326	PCBs	PCB-183	161000 pg	161000J pg	Calibration Exceeded
HOUS-COL-VP81-THIN-BL-PW-SPME-240326	PCBs	PCB-187	335000 pg	335000J pg	Calibration Exceeded
HOUS-COL-VP81-THIN-WET1-PW-SPME-240528	PCBs	PCB-095	124000 pg	124000J pg	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-VP81-THIN-WET1-PW-SPME-240528	PCBs	PCB-136	89700 pg	89700J pg	Calibration Exceeded
HOUS-COL-VP81-THIN-WET1-PW-SPME-240528	PCBs	PCB-147/149	187000 pg	187000J pg	Calibration Exceeded
HOUS-COL-VP81-THIN-WET1-PW-SPME-240528	PCBs	PCB-126	125U pg	125UJ pg	Labeled compound %R below CL
HOUS-COL-VP81-THIN-WET1-PW-SPME-240528	PCBs	PCB-169	269U pg	269UJ pg	Labeled compound %R below CL
HOUS-COL-VP81-THIN-WET1-PW-SPME-240528	PCBs	PCB-004	13.1J pg	13.1U pg	Method blank contamination
VP12-B-C-1/2-BST	PCBs	PCB-031	8520 pg/g	8520J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-040/071	16800 pg/g	16800J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-042	13800 pg/g	13800J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-044/047/065	101000 pg/g	101000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-049/069	156000 pg/g	156000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-052	399000 pg/g	399000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-056	10800 pg/g	10800J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-061/070/074/076	126000 pg/g	126000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-064	28700 pg/g	28700J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-066	74600 pg/g	74600J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-082	94700 pg/g	94700J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-083	74900 pg/g	74900J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-084	293000 pg/g	293000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-085/116	226000 pg/g	226000J pg/g	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
VP12-B-C-1/2-BST	PCBs	PCB-086/087/097/109/119/125	914000 pg/g	914000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-090/101/113	2230000 pg/g	2230000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-091	226000 pg/g	226000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-092	547000 pg/g	547000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-093/100	25100 pg/g	25100J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-094	11400 pg/g	11400J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-095	1790000 pg/g	1790000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-099	661000 pg/g	661000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-102	22800 pg/g	22800J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-103	43400 pg/g	43400J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-105	254000 pg/g	254000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-107	74000 pg/g	74000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-108/124	53400 pg/g	53400J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-110	1880000 pg/g	1880000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-114	10400 pg/g	10400J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-117	32100 pg/g	32100J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-118	734000 pg/g	734000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-120	8870 pg/g	8870J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-122	15600 pg/g	15600J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-123	18900 pg/g	18900J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-128/166	488000 pg/g	488000J pg/g	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
VP12-B-C-1/2-BST	PCBs	PCB-129/138/163	1700000 pg/g	1700000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-130	110000 pg/g	110000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-131	15700 pg/g	15700J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-132	595000 pg/g	595000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-133	31400 pg/g	31400J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-134	104000 pg/g	104000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-135/151	890000 pg/g	890000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-136	731000 pg/g	731000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-137	39600 pg/g	39600J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-139/140	21400 pg/g	21400J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-141	525000 pg/g	525000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-144	118000 pg/g	118000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-146	294000 pg/g	294000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-147/149	1410000 pg/g	1410000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-150	9370 pg/g	9370J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-153/168	1460000 pg/g	1460000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-154	29200 pg/g	29200J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-156/157	290000 pg/g	290000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-158	190000 pg/g	190000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-159	62100 pg/g	62100J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-162	11700 pg/g	11700J pg/g	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
VP12-B-C-1/2-BST	PCBs	PCB-164	157000 pg/g	157000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-167	148000 pg/g	148000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-169	9240 pg/g	9240J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-170	1250000 pg/g	1250000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-171/173	260000 pg/g	260000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-172	149000 pg/g	149000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-174	769000 pg/g	769000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-175	35000 pg/g	35000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-176	316000 pg/g	316000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-177	471000 pg/g	471000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-178	483000 pg/g	483000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-179	918000 pg/g	918000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-180/193	1350000 pg/g	1350000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-183	445000 pg/g	445000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-185	130000 pg/g	130000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-187	796000 pg/g	796000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-189	81500 pg/g	81500J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-190	302000 pg/g	302000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-191	34800 pg/g	34800J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-194	1150000 pg/g	1150000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-195	552000 pg/g	552000J pg/g	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
VP12-B-C-1/2-BST	PCBs	PCB-196	624000 pg/g	624000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-197	45200 pg/g	45200J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-198/199	1140000 pg/g	1140000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-200	194000 pg/g	194000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-201	166000 pg/g	166000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-202	188000 pg/g	188000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-203	720000 pg/g	720000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-205	69200 pg/g	69200J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-206	230000 pg/g	230000J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-207	32700 pg/g	32700J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-208	46100 pg/g	46100J pg/g	Calibration Exceeded
VP12-B-C-1/2-BST	PCBs	PCB-209	16600 pg/g	16600J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-044/047/065	35200 pg/g	35200J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-049/069	70300 pg/g	70300J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-052	160000 pg/g	160000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-061/070/074/076	85900 pg/g	85900J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-064	18400 pg/g	18400J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-066	38700 pg/g	38700J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-082	67400 pg/g	67400J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-083	33400 pg/g	33400J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-084	133000 pg/g	133000J pg/g	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
VP40-R-6-7-BST-02292024	PCBs	PCB-085/116	231000 pg/g	231000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-086/087/097/109/119/125	791000 pg/g	791000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-090/101/113	1760000 pg/g	1760000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-091	193000 pg/g	193000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-092	466000 pg/g	466000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-095	1180000 pg/g	1180000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-099	627000 pg/g	627000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-102	14800 pg/g	14800J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-103	28800 pg/g	28800J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-105	223000 pg/g	223000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-107	65200 pg/g	65200J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-108/124	58000 pg/g	58000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-110	1800000 pg/g	1800000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-114	11700 pg/g	11700J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-117	30500 pg/g	30500J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-118	755000 pg/g	755000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-122	20800 pg/g	20800J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-123	24100 pg/g	24100J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-128/166	349000 pg/g	349000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-129/138/163	2320000 pg/g	2320000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-130	166000 pg/g	166000J pg/g	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
VP40-R-6-7-BST-02292024	PCBs	PCB-131	26600 pg/g	26600J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-132	777000 pg/g	777000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-133	53500 pg/g	53500J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-134	178000 pg/g	178000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-135/151	1250000 pg/g	1250000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-136	762000 pg/g	762000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-137	87300 pg/g	87300J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-139/140	38600 pg/g	38600J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-141	672000 pg/g	672000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-144	163000 pg/g	163000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-146	444000 pg/g	444000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-147/149	1980000 pg/g	1980000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-150	13300 pg/g	13300J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-153/168	2060000 pg/g	2060000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-154	43300 pg/g	43300J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-156/157	227000 pg/g	227000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-158	265000 pg/g	265000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-159	38900 pg/g	38900J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-162	11900 pg/g	11900J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-164	219000 pg/g	219000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-167	133000 pg/g	133000J pg/g	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
VP40-R-6-7-BST-02292024	PCBs	PCB-170	1250000 pg/g	1250000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-171/173	368000 pg/g	368000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-172	215000 pg/g	215000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-174	1010000 pg/g	1010000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-175	55000 pg/g	55000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-176	178000 pg/g	178000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-177	656000 pg/g	656000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-178	319000 pg/g	319000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-179	545000 pg/g	545000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-180/193	1970000 pg/g	1970000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-183	618000 pg/g	618000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-185	184000 pg/g	184000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-187	1140000 pg/g	1140000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-189	55100 pg/g	55100J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-190	292000 pg/g	292000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-191	50600 pg/g	50600J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-194	889000 pg/g	889000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-195	408000 pg/g	408000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-196	403000 pg/g	403000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-197	36500 pg/g	36500J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-198/199	773000 pg/g	773000J pg/g	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
VP40-R-6-7-BST-02292024	PCBs	PCB-200	154000 pg/g	154000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-201	117000 pg/g	117000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-202	138000 pg/g	138000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-203	501000 pg/g	501000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-205	56600 pg/g	56600J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-206	346000 pg/g	346000J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-207	33100 pg/g	33100J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-208	45600 pg/g	45600J pg/g	Calibration Exceeded
VP40-R-6-7-BST-02292024	PCBs	PCB-209	28900 pg/g	28900J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-044/047/065	85800 pg/g	85800J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-049/069	65200 pg/g	65200J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-052	98600 pg/g	98600J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-061/070/074/076	45200 pg/g	45200J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-064	7440 pg/g	7440J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-066	33300 pg/g	33300J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-082	52700 pg/g	52700J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-083	45400 pg/g	45400J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-084	162000 pg/g	162000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-085/116	139000 pg/g	139000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-086/087/097/109/119/125	506000 pg/g	506000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-090/101/113	1320000 pg/g	1320000J pg/g	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
VP81-G-10/11-BST	PCBs	PCB-091	190000 pg/g	190000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-092	359000 pg/g	359000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-093/100	42400 pg/g	42400J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-094	15200 pg/g	15200J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-095	1080000 pg/g	1080000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-096	9210 pg/g	9210J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-099	409000 pg/g	409000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-102	17700 pg/g	17700J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-103	34700 pg/g	34700J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-105	107000 pg/g	107000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-107	31800 pg/g	31800J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-108/124	31100 pg/g	31100J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-110	1060000 pg/g	1060000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-117	17100 pg/g	17100J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-118	371000 pg/g	371000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-120	7480 pg/g	7480J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-122	10200 pg/g	10200J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-123	11700 pg/g	11700J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-128/166	294000 pg/g	294000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-129/138/163	1400000 pg/g	1400000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-130	92800 pg/g	92800J pg/g	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
VP81-G-10/11-BST	PCBs	PCB-131	12300 pg/g	12300J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-132	474000 pg/g	474000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-133	30400 pg/g	30400J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-134	85500 pg/g	85500J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-135/151	768000 pg/g	768000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-136	685000 pg/g	685000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-137	29900 pg/g	29900J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-139/140	17200 pg/g	17200J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-141	454000 pg/g	454000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-144	106000 pg/g	106000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-146	272000 pg/g	272000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-147/149	1190000 pg/g	1190000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-150	15300 pg/g	15300J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-153/168	1240000 pg/g	1240000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-154	29800 pg/g	29800J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-156/157	193000 pg/g	193000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-158	158000 pg/g	158000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-159	44700 pg/g	44700J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-162	9310 pg/g	9310J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-164	130000 pg/g	130000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-167	105000 pg/g	105000J pg/g	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
VP81-G-10/11-BST	PCBs	PCB-170	1170000 pg/g	1170000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-171/173	257000 pg/g	257000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-172	156000 pg/g	156000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-174	752000 pg/g	752000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-175	39300 pg/g	39300J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-176	248000 pg/g	248000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-177	459000 pg/g	459000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-178	374000 pg/g	374000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-179	684000 pg/g	684000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-180/193	1310000 pg/g	1310000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-183	455000 pg/g	455000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-185	109000 pg/g	109000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-187	770000 pg/g	770000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-189	67700 pg/g	67700J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-190	276000 pg/g	276000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-191	36700 pg/g	36700J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-194	961000 pg/g	961000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-195	459000 pg/g	459000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-196	482000 pg/g	482000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-197	38000 pg/g	38000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-198/199	835000 pg/g	835000J pg/g	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
VP81-G-10/11-BST	PCBs	PCB-200	142000 pg/g	142000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-201	133000 pg/g	133000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-202	140000 pg/g	140000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-203	530000 pg/g	530000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-205	56700 pg/g	56700J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-206	186000 pg/g	186000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-207	30000 pg/g	30000J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-208	39100 pg/g	39100J pg/g	Calibration Exceeded
VP81-G-10/11-BST	PCBs	PCB-209	10300 pg/g	10300J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-044/047/065	48100 pg/g	48100J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-049/069	96500 pg/g	96500J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-052	304000 pg/g	304000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-061/070/074/076	125000 pg/g	125000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-064	24400 pg/g	24400J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-066	52800 pg/g	52800J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-082	79400 pg/g	79400J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-083	45800 pg/g	45800J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-084	179000 pg/g	179000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-085/116	212000 pg/g	212000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-086/087/097/109/119/125	844000 pg/g	844000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-090/101/113	1700000 pg/g	1700000J pg/g	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
VP9-X-Y-16-BST-02292024	PCBs	PCB-091	170000 pg/g	170000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-092	418000 pg/g	418000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-095	1230000 pg/g	1230000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-099	568000 pg/g	568000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-102	17300 pg/g	17300J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-103	19500 pg/g	19500J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-105	266000 pg/g	266000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-107	68200 pg/g	68200J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-108/124	53600 pg/g	53600J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-110	1700000 pg/g	1700000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-117	25700 pg/g	25700J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-118	891000 pg/g	891000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-122	13900 pg/g	13900J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-123	20700 pg/g	20700J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-128/166	258000 pg/g	258000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-129/138/163	1720000 pg/g	1720000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-130	124000 pg/g	124000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-131	20500 pg/g	20500J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-132	619000 pg/g	619000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-133	35700 pg/g	35700J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-134	138000 pg/g	138000J pg/g	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
VP9-X-Y-16-BST-02292024	PCBs	PCB-135/151	888000 pg/g	888000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-136	391000 pg/g	391000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-137	62300 pg/g	62300J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-139/140	27500 pg/g	27500J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-141	503000 pg/g	503000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-144	111000 pg/g	111000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-146	304000 pg/g	304000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-147/149	1450000 pg/g	1450000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-153/168	1460000 pg/g	1460000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-154	27000 pg/g	27000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-156/157	224000 pg/g	224000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-158	197000 pg/g	197000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-159	27100 pg/g	27100J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-164	158000 pg/g	158000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-167	86100 pg/g	86100J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-170	1460000 pg/g	1460000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-171/173	381000 pg/g	381000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-172	221000 pg/g	221000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-174	1110000 pg/g	1110000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-175	50600 pg/g	50600J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-176	174000 pg/g	174000J pg/g	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
VP9-X-Y-16-BST-02292024	PCBs	PCB-177	715000 pg/g	715000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-178	322000 pg/g	322000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-179	553000 pg/g	553000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-180/193	1940000 pg/g	1940000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-181	8380 pg/g	8380J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-183	596000 pg/g	596000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-185	224000 pg/g	224000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-187	1200000 pg/g	1200000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-189	46100 pg/g	46100J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-190	366000 pg/g	366000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-191	50800 pg/g	50800J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-194	456000 pg/g	456000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-195	225000 pg/g	225000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-196	218000 pg/g	218000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-197	17500 pg/g	17500J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-198/199	449000 pg/g	449000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-200	89000 pg/g	89000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-201	61100 pg/g	61100J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-202	76200 pg/g	76200J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-203	291000 pg/g	291000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-205	31600 pg/g	31600J pg/g	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
VP9-X-Y-16-BST-02292024	PCBs	PCB-206	186000 pg/g	186000J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-207	20400 pg/g	20400J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-208	30200 pg/g	30200J pg/g	Calibration Exceeded
VP9-X-Y-16-BST-02292024	PCBs	PCB-209	14600 pg/g	14600J pg/g	Calibration Exceeded

Notes:
%R: percent recovery
EMPC: estimated maximum potential concentration
pg: picogram
pg/g: picogram per gram

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Data Validation Report – EPA Stage 2A

April 18, 2025

Project: Housatonic Vernal Pool Pilot Study

Project Number: 240469-10.01

Validation ID: AQ-2025-0059

This report summarizes the review of analytical results for 15 solid-phase microextraction (SPME) fiber samples collected between June 2024 and July 2024. The samples were collected by Anchor QEA and submitted to SGS Analytical (SGS) in Wilmington, North Carolina. Samples were analyzed for the following parameters:

- Polychlorinated biphenyls congeners (PCBs) by U.S. Environmental Protection Agency (EPA) method 1668C

Sample IDs, matrices, analyses, and SGS sample delivery group numbers (SDGs) reviewed in this report are presented in Table 1.

Table 1
Sample IDs, SDGs, Matrices, and Analyses

Sample ID	Lab Sample ID	SDG	Matrix	Analyses (Methods)
HOUS-COL-VP12-AMEND-DRY1-PW-SPME-240617	B9551_21249_PCB_002	B9551	SPME	PCBs
HOUS-COL-VP12-CTRL-DRY1-PW-SPME-240617	B9551_21249_PCB_004	B9551	SPME	PCBs
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	B9551_21249_PCB_003-D10	B9551	SPME	PCBs
HOUS-COL-VP12-THIN-DRY1-PW-SPME-240617	B9551_21249_PCB_001	B9551	SPME	PCBs
HOUS-COL-PW-SPME-PRC-QC-1-240627	B9613_21292_PCB_001	B9613	SPME	PCBs
HOUS-COL-PW-SPME-PRC-QC-1-240716	B9673_21316_PCB_006-RJ	B9673	SPME	PCBs
HOUS-JAR-PW-SPME-PRC-QC-1-240716	B9673_21316_PCB_001-RJ	B9673	SPME	PCBs
HOUS-JAR-PW-SPME-PRC-QC-2-240716	B9673_21316_PCB_002-RJ	B9673	SPME	PCBs
HOUS-JAR-PW-SPME-PRC-QC-3-240716	B9673_21316_PCB_003-RJ	B9673	SPME	PCBs

Sample ID	Lab Sample ID	SDG	Matrix	Analyses (Methods)
HOUS-JAR-PW-SPME-PRC-QC-4-240716	B9673_21316_PCB_004-RJ	B9673	SPME	PCBs
HOUS-JAR-PW-SPME-PRC-QC-5-240716	B9673_21316_PCB_005-RJ	B9673	SPME	PCBs
HOUS-COL-VP81-AMEND-DRY1-PW-SPME-240729	B9748_21357_PCB_002	B9748	SPME	PCBs
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	B9748_21357_PCB_004-D10-RJ	B9748	SPME	PCBs
HOUS-COL-VP81-MIXED-DRY1-PW-SPME-240729	B9748_21357_PCB_003	B9748	SPME	PCBs
HOUS-COL-VP81-THIN-DRY1-PW-SPME-240729	B9748_21357_PCB_001	B9748	SPME	PCBs

Data Validation and Qualifications

The following comments refer to the laboratory's performance in meeting the quality assurance/ quality control (QA/QC) guidelines outlined in the analytical procedures. Laboratory results were reviewed using the following guidelines:

- Field Sampling Plan/Quality Assurance Project Plan, Revision1 (Arcadis 2023)
- EPA Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846, Third Edition; EPA1986)
- Region I, EPA-New England Data Validation Functional Guidelines for Evaluating Environmental Analyses (EPA 1996)
- EPA National Functional Guidelines for High Resolution Superfund Methods Data Review (EPA 2020)

Unless noted in this report, laboratory results for the samples listed above were within QC criteria.

Field Documentation

Field documentation was checked for completeness and accuracy. The chain-of-custody forms were signed by SGS at the time of sample receipt. Samples were received in good condition and within the recommended temperature range with one exception. Sample HOUS-COL-PW-SPME-PRC-QC-1-240627 was received at 28.9^{o}C. All results were qualified "J" or "UJ" to indicate they are estimated.

Sample Preservation and Holding Times

Samples were appropriately preserved and analyzed within the holding times with one exception. The extract was analyzed 47 days after preparation for HOUS-COL-VP81-CTRL-DRY1-PW-SPME-

240729, outside of the project-required 45 days. The sample results were qualified "J" or "UJ" to indicate they are estimated.

Laboratory Method Blanks

Laboratory method blanks were analyzed at the required frequencies. PCBs were detected in every method blank. In instances where the sample concentration was not significantly greater than (5x greater than) the concentration of the method blank, the sample result was qualified "U".

Field Quality Control

Field Quality Control (QC) were not collected with these sample sets.

Surrogates and Labeled Compounds Recoveries

Due to the inability to accurately quantify surrogates and labeled compounds when a sample was analyzed at a dilution of 5x or greater, no data were qualified when surrogate recoveries were outside of control limits. When surrogate recoveries were outside of the control limits in one column, but results were reported from the other column; no data were qualified. Surrogates recovered outside of control limits in some laboratory QC samples, however; data are not qualified for surrogate outliers in QC samples alone or when outlying surrogates are associated with the non-reporting column. Surrogates and labeled compounds recovered within project-required control limits with the following exceptions. The labeled compounds for PCB-169 recovered below 10% for HOUS-COL-VP12-AMEND-DRY1-PW-SPME-240617, HOUS-COL-VP12-THIN-DRY1-PW-SPME-240617, HOUS-COL-VP81-MIXED-DRY1-PW-SPME-240729, and HOUS-COL-VP81-THIN-DRY1-PW-SPME-240729 and PCB-126 and PCB-169 also recovered below 10% for HOUS-COL-VP81-AMEND-DRY1-PW-SPME-240729. Associated sample results were rejected due to the recovery being less than 10%.

Laboratory Control Samples

Laboratory control samples (LCS) were analyzed at the required frequency. LCS recoveries were within project-required control limits with one exception. The LCS recovered above the control limit in batch 21357 for PCB-169. Associated results were not detected, so qualification was not necessary.

Matrix Spike and Matrix Spike Duplicate Samples

Matrix spike (MS) and matrix spike duplicate (MSD) samples were not required for analysis since labeled compounds were added to all samples.

Laboratory Duplicates

Laboratory duplicates were not required to be analyzed for these sample sets.

Method Reporting Limits

MRLs were acceptable as reported. All values were reported using the laboratory reporting limits. Values were reported as undiluted or when diluted, the reporting limit reflects the dilution factor.

Sample Analyses

Several results were noted by the laboratory to have exceeded the calibration. These results were qualified "J" as estimated.

Estimated Maximum Possible Concentration

Some PCB congener results were flagged as estimated maximum possible concentration (EMPC) due to results that do not meet all method qualitative criteria for positive identification. Results have been qualified "J" or "UJ" to indicate they are estimated.

Overall Assessment

As was determined by this evaluation, the laboratory followed the specified analytical methods and all requested sample analyses were completed. Accuracy was acceptable as demonstrated by the surrogate, labeled compounds, and LCS recovery values, with the exceptions noted above. Most data are acceptable as reported or qualified. Six results in five samples were rejected due to low recovery. Completeness was greater than 99%. Table 2 summarizes the qualifiers applied to the sample results reviewed in this report.

Data Qualifier Definitions

U Indicates the compound or analyte was analyzed for but not detected at or above the specified limit.

J Indicates an estimated value.

UJ Indicates the compound or analyte was analyzed for but not detected and the specified limit reported is estimated.

R Indicates the value is rejected and unusable.

Table 2
Data Qualification Summary

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
Various	PCBs	Various	Various	Various	EMPC
HOUS-COL-PW-SPME-PRC-QC-1-240627	PCBs	All PCBs	Various	J or UJ	Cooler Temperature Exceedance

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-PW-SPME-PRC-QC-1-240627	PCBs	PCB-011	27.2 pg	27.2UJ pg	Cooler Temperature Exceedance; Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240627	PCBs	PCB-052	9.18JEMPC pg	9.18J pg	Cooler Temperature Exceedance; EMPC
HOUS-COL-PW-SPME-PRC-QC-1-240627	PCBs	PCB-090/101/113	12.5JEMPC pg	12.5J pg	Cooler Temperature Exceedance; EMPC
HOUS-COL-PW-SPME-PRC-QC-1-240627	PCBs	PCB-110	11.1JEMPC pg	11.1J pg	Cooler Temperature Exceedance; EMPC
HOUS-COL-PW-SPME-PRC-QC-1-240627	PCBs	PCB-118	12.8JEMPC pg	12.8J pg	Cooler Temperature Exceedance; EMPC
HOUS-COL-PW-SPME-PRC-QC-1-240627	PCBs	PCB-129/138/163	15.7JEMPC pg	15.7J pg	Cooler Temperature Exceedance; EMPC
HOUS-COL-PW-SPME-PRC-QC-1-240627	PCBs	PCB-153/168	14.5JEMPC pg	14.5J pg	Cooler Temperature Exceedance; EMPC
HOUS-COL-VP12-AMEND-DRY1-PW-SPME-240617	PCBs	PCB-169	85.9U pg	R	Labeled compound %R below 10%
HOUS-COL-VP12-AMEND-DRY1-PW-SPME-240617	PCBs	PCB-183	13.8JEMPC pg	13.8UJ pg	Method blank contamination; EMPC
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	PCBs	PCB-049/069	167000 pg	167000J pg	Calibration Exceeded
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	PCBs	PCB-052	411000 pg	411000J pg	Calibration Exceeded
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	PCBs	PCB-084	120000 pg	120000J pg	Calibration Exceeded
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	PCBs	PCB-090/101/113	1210000 pg	1210000J pg	Calibration Exceeded
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	PCBs	PCB-091	144000 pg	144000J pg	Calibration Exceeded
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	PCBs	PCB-092	275000 pg	275000J pg	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	PCBs	PCB-095	1220000 pg	1220000J pg	Calibration Exceeded
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	PCBs	PCB-099	344000 pg	344000J pg	Calibration Exceeded
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	PCBs	PCB-110	770000 pg	770000J pg	Calibration Exceeded
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	PCBs	PCB-118	221000 pg	221000J pg	Calibration Exceeded
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	PCBs	PCB-129/138/163	891000 pg	891000J pg	Calibration Exceeded
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	PCBs	PCB-132	310000 pg	310000J pg	Calibration Exceeded
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	PCBs	PCB-135/151	749000 pg	749000J pg	Calibration Exceeded
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	PCBs	PCB-136	391000 pg	391000J pg	Calibration Exceeded
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	PCBs	PCB-141	247000 pg	247000J pg	Calibration Exceeded
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	PCBs	PCB-146	152000 pg	152000J pg	Calibration Exceeded
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	PCBs	PCB-147/149	1330000 pg	1330000J pg	Calibration Exceeded
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	PCBs	PCB-153/168	1050000 pg	1050000J pg	Calibration Exceeded
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	PCBs	PCB-170	215000 pg	215000J pg	Calibration Exceeded
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	PCBs	PCB-174	369000 pg	369000J pg	Calibration Exceeded
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	PCBs	PCB-177	187000 pg	187000J pg	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	PCBs	PCB-178	116000 pg	116000J pg	Calibration Exceeded
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	PCBs	PCB-179	292000 pg	292000J pg	Calibration Exceeded
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	PCBs	PCB-180/193	528000 pg	528000J pg	Calibration Exceeded
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	PCBs	PCB-183	216000 pg	216000J pg	Calibration Exceeded
HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	PCBs	PCB-187	472000 pg	472000J pg	Calibration Exceeded
HOUS-COL-VP12-THIN-DRY1-PW-SPME-240617	PCBs	PCB-052	280000 pg	280000J pg	Calibration Exceeded
HOUS-COL-VP12-THIN-DRY1-PW-SPME-240617	PCBs	PCB-090/101/113	273000 pg	273000J pg	Calibration Exceeded
HOUS-COL-VP12-THIN-DRY1-PW-SPME-240617	PCBs	PCB-095	354000 pg	354000J pg	Calibration Exceeded
HOUS-COL-VP12-THIN-DRY1-PW-SPME-240617	PCBs	PCB-110	138000 pg	138000J pg	Calibration Exceeded
HOUS-COL-VP12-THIN-DRY1-PW-SPME-240617	PCBs	PCB-129/138/163	257000 pg	257000J pg	Calibration Exceeded
HOUS-COL-VP12-THIN-DRY1-PW-SPME-240617	PCBs	PCB-132	142000 pg	142000J pg	Calibration Exceeded
HOUS-COL-VP12-THIN-DRY1-PW-SPME-240617	PCBs	PCB-135/151	284000 pg	284000J pg	Calibration Exceeded
HOUS-COL-VP12-THIN-DRY1-PW-SPME-240617	PCBs	PCB-136	185000 pg	185000J pg	Calibration Exceeded
HOUS-COL-VP12-THIN-DRY1-PW-SPME-240617	PCBs	PCB-147/149	490000 pg	490000J pg	Calibration Exceeded
HOUS-COL-VP12-THIN-DRY1-PW-SPME-240617	PCBs	PCB-153/168	297000 pg	297000J pg	Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-VP12-THIN-DRY1-PW-SPME-240617	PCBs	PCB-169	294U pg	R	Labeled compound %R below 10%
HOUS-COL-VP12-THIN-DRY1-PW-SPME-240617	PCBs	PCB-174	140000 pg	140000J pg	Calibration Exceeded
HOUS-COL-VP12-THIN-DRY1-PW-SPME-240617	PCBs	PCB-179	129000 pg	129000J pg	Calibration Exceeded
HOUS-COL-VP12-THIN-DRY1-PW-SPME-240617	PCBs	PCB-187	162000 pg	162000J pg	Calibration Exceeded
HOUS-COL-VP81-AMEND-DRY1-PW-SPME-240729	PCBs	PCB-008	3.15J pg	3.15U pg	Method blank contamination
HOUS-COL-VP81-AMEND-DRY1-PW-SPME-240729	PCBs	PCB-011	38.1 pg	38.1U pg	Method blank contamination
HOUS-COL-VP81-AMEND-DRY1-PW-SPME-240729	PCBs	PCB-050/053	8.04JEMPC pg	8.04UJ pg	Method blank contamination; EMPC
HOUS-COL-VP81-AMEND-DRY1-PW-SPME-240729	PCBs	PCB-086/087/097/109/119/125	31.1J pg	31.1U pg	Method blank contamination
HOUS-COL-VP81-AMEND-DRY1-PW-SPME-240729	PCBs	PCB-126	25.2U pg	R	Labeled compound %R below 10%
HOUS-COL-VP81-AMEND-DRY1-PW-SPME-240729	PCBs	PCB-156/157	3.51JEMPC pg	3.51UJ pg	Method blank contamination; EMPC
HOUS-COL-VP81-AMEND-DRY1-PW-SPME-240729	PCBs	PCB-164	10.1J pg	10.1U pg	Method blank contamination
HOUS-COL-VP81-AMEND-DRY1-PW-SPME-240729	PCBs	PCB-169	174U pg	R	Labeled compound %R below 10%
HOUS-COL-VP81-AMEND-DRY1-PW-SPME-240729	PCBs	PCB-190	6.05J pg	6.05U pg	Method blank contamination
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	All PCBs	Various	J or UJ	Extraction holding time exceedance
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-011	49.4 pg	49.4UJ pg	Extraction holding time exceedance; Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-017	320EMPC pg	320J pg	Extraction holding time exceedance; EMPC
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-038	35.5EMPC pg	35.5J pg	Extraction holding time exceedance; EMPC
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-052	114000 pg	114000J pg	Extraction holding time exceedance; Calibration Exceeded
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-079	2000EMPC pg	2000J pg	Extraction holding time exceedance; EMPC
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-084	129000 pg	129000J pg	Extraction holding time exceedance; Calibration Exceeded
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-090/101/113	964000 pg	964000J pg	Extraction holding time exceedance; Calibration Exceeded
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-091	155000 pg	155000J pg	Extraction holding time exceedance; Calibration Exceeded
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-092	253000 pg	253000J pg	Extraction holding time exceedance; Calibration Exceeded
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-095	1100000 pg	1100000J pg	Extraction holding time exceedance; Calibration Exceeded
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-099	274000 pg	274000J pg	Extraction holding time exceedance; Calibration Exceeded
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-110	672000 pg	672000J pg	Extraction holding time exceedance; Calibration Exceeded
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-118	138000 pg	138000J pg	Extraction holding time exceedance; Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-129/138/163	954000 pg	954000J pg	Extraction holding time exceedance; Calibration Exceeded
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-132	349000 pg	349000J pg	Extraction holding time exceedance; Calibration Exceeded
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-135/151	743000 pg	743000J pg	Extraction holding time exceedance; Calibration Exceeded
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-136	403000 pg	403000J pg	Extraction holding time exceedance; Calibration Exceeded
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-141	270000 pg	270000J pg	Extraction holding time exceedance; Calibration Exceeded
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-144	87300 pg	87300J pg	Extraction holding time exceedance; Calibration Exceeded
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-146	165000 pg	165000J pg	Extraction holding time exceedance; Calibration Exceeded
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-147/149	1360000 pg	1360000J pg	Extraction holding time exceedance; Calibration Exceeded
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-153/168	1090000 pg	1090000J pg	Extraction holding time exceedance; Calibration Exceeded
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-170	258000 pg	258000J pg	Extraction holding time exceedance; Calibration Exceeded
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-174	430000 pg	430000J pg	Extraction holding time exceedance; Calibration Exceeded
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-176	82800 pg	82800J pg	Extraction holding time exceedance;

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
					Calibration Exceeded
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-177	222000 pg	222000J pg	Extraction holding time exceedance; Calibration Exceeded
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-178	115000 pg	115000J pg	Extraction holding time exceedance; Calibration Exceeded
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-179	281000 pg	281000J pg	Extraction holding time exceedance; Calibration Exceeded
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-180/193	673000 pg	673000J pg	Extraction holding time exceedance; Calibration Exceeded
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-183	253000 pg	253000J pg	Extraction holding time exceedance; Calibration Exceeded
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-184	228EMPC pg	228J pg	Extraction holding time exceedance; EMPC
HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	PCBs	PCB-187	515000 pg	515000J pg	Extraction holding time exceedance; Calibration Exceeded
HOUS-COL-VP81-MIXED-DRY1-PW-SPME-240729	PCBs	PCB-011	21.4EMPC pg	21.4UJ pg	Method blank contamination; EMPC
HOUS-COL-VP81-MIXED-DRY1-PW-SPME-240729	PCBs	PCB-169	316U pg	R	Labeled compound %R below 10%
HOUS-COL-VP81-THIN-DRY1-PW-SPME-240729	PCBs	PCB-006	4J pg	4U pg	Method blank contamination
HOUS-COL-VP81-THIN-DRY1-PW-SPME-240729	PCBs	PCB-008	4.23J pg	4.23U pg	Method blank contamination
HOUS-COL-VP81-THIN-DRY1-PW-SPME-240729	PCBs	PCB-011	35.5 pg	35.5U pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-VP81-THIN-DRY1-PW-SPME-240729	PCBs	PCB-095	116000 pg	116000J pg	Calibration Exceeded
HOUS-COL-VP81-THIN-DRY1-PW-SPME-240729	PCBs	PCB-147/149	185000 pg	185000J pg	Calibration Exceeded
HOUS-COL-VP81-THIN-DRY1-PW-SPME-240729	PCBs	PCB-169	469U pg	R	Labeled compound %R below 10%
HOUS-JAR-PW-SPME-PRC-QC-2-240716	PCBs	PCB-129/138/163	12.8J pg	12.8U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240716	PCBs	PCB-153/168	11.6JEMPC pg	11.6UJ pg	Method blank contamination; EMPC

Notes:
%R: percent recovery
EMPC: estimated maximum potential concentration
pg: picogram
pg/g: picogram per gram

References

Arcadis, 2023. *Field Sampling Plan/Quality Assurance Project Plan, Revision 1*. Prepared for General Electric Company, Pittsfield, Massachusetts. December 2023.

EPA (U.S. Environmental Protection Agency), 1986. *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. EPA-530/SW-846.

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EPA, 2020. USEPA Contract Laboratory Program National Functional Guidelines for High Resolution Superfund Methods Data Review. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. EPA 542-R-20-007. November 2020.

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ANCHOR QEA

Data Validation Report – EPA Stage 2A

April 30, 2025

Project: Housatonic Vernal Pool Pilot Study

Project Number: 240469-10.01

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This report summarizes the review of analytical results for 21 solid-phase microextraction (SPME) fiber samples collected in August 2024. The samples were collected by Anchor QEA and submitted to SGS Analytical (SGS) in Wilmington, North Carolina. Samples were analyzed for the following parameters:

- Polychlorinated biphenyls congeners (PCBs) by U.S. Environmental Protection Agency (EPA) method 1668C

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HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	B9843_21455_PCB_002	B9843	SPME	PCBs
HOUS-COL-VP12-MIXED-WET2-PW-SPME-240819	B9843_21455_PCB_003	B9843	SPME	PCBs
HOUS-COL-VP12-CTRL-WET2-PW-SPME-240819	B9843_21455_PCB_004	B9843	SPME	PCBs
HOUS-VP12-JAR-SPME-10-BIOC-B	B9845_21454_PCB_001-D10	B9845	SPME	PCBs
HOUS-VP81-JAR-SPME-CTRL-A	B9845_21454_PCB_002-D10	B9845	SPME	PCBs
HOUS-VP81-JAR-SPME-CTRL-B	B9845_21454_PCB_003-D10	B9845	SPME	PCBs
HOUS-VP81-JAR-SPME-1-PAC-A	B9845_21454_PCB_004	B9845	SPME	PCBs
HOUS-VP81-JAR-SPME-1-PAC-B	B9845_21454_PCB_005-D10	B9845	SPME	PCBs
HOUS-VP81-JAR-SPME-2-PAC-A	B9845_21454_PCB_006	B9845	SPME	PCBs
HOUS-VP81-JAR-SPME-2-PAC-B	B9845_21454_PCB_007	B9845	SPME	PCBs
HOUS-VP81-JAR-SPME-5-PAC-A	B9845_21454_PCB_008	B9845	SPME	PCBs
HOUS-VP81-JAR-SPME-5-PAC-B	B9845_21454_PCB_009-D10	B9845	SPME	PCBs

Sample ID	Lab Sample ID	SDG	Matrix	Analyses (Methods)
HOUS-VP81-JAR-SPME-2-GAC-A	B9845_21454_PCB_010-D10	B9845	SPME	PCBs
HOUS-VP81-JAR-SPME-2-GAC-B	B9845_21454_PCB_011-D10	B9845	SPME	PCBs
HOUS-VP81-JAR-SPME-5-GAC-A	B9845_21454_PCB_012	B9845	SPME	PCBs
HOUS-VP81-JAR-SPME-5-GAC-B	B9845_21454_PCB_013	B9845	SPME	PCBs
HOUS-VP81-JAR-SPME-5-BIOC-A	B9845_21454_PCB_014	B9845	SPME	PCBs
HOUS-VP81-JAR-SPME-5-BIOC-B	B9845_21454_PCB_015	B9845	SPME	PCBs
HOUS-VP81-JAR-SPME-10-BIOC-A	B9845_21454_PCB_016	B9845	SPME	PCBs
HOUS-VP81-JAR-SPME-10-BIOC-B	B9845_21454_PCB_017-D10	B9845	SPME	PCBs

Data Validation and Qualifications

The following comments refer to the laboratory's performance in meeting the quality assurance/ quality control (QA/QC) guidelines outlined in the analytical procedures. Laboratory results were reviewed using the following guidelines:

- Field Sampling Plan/Quality Assurance Project Plan, Revision 1 (Arcadis 2023)
- EPA Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846, Third Edition; EPA 1986)
- Region I, EPA-New England Data Validation Functional Guidelines for Evaluating Environmental Analyses (EPA 1996)
- EPA National Functional Guidelines for High Resolution Superfund Methods Data Review (EPA 2020)

Unless noted in this report, laboratory results for the samples listed above were within QC criteria.

Field Documentation

Field documentation was checked for completeness and accuracy. The chain-of-custody forms were signed by SGS at the time of sample receipt. Samples were received in good condition and within the recommended temperature range.

Sample Preservation and Holding Times

Samples were appropriately preserved. The extracts for all samples were analyzed outside of the project-required extraction holding time of 45 days. The sample results were qualified "J" or "UJ" to indicate they are estimated.

Laboratory Method Blanks

Laboratory method blanks were analyzed at the required frequencies. PCBs were detected in every method blank. In instances where the sample concentration was not significantly greater than (5x greater than) the concentration of the method blank, the sample result was qualified "U".

Field Quality Control

Field QC were not collected for these sample sets.

Surrogates and Labeled Compounds Recoveries

Due to the inability to accurately quantify surrogates and labeled compounds when a sample was analyzed at a dilution of 5x or greater, no data were qualified when surrogate recoveries were outside of control limits. Surrogates and labeled compounds recovered within project-required control limits.

Laboratory Control Samples

Laboratory control samples (LCS) were analyzed at the required frequency. LCS recoveries were within project-required control limits.

Matrix Spike and Matrix Spike Duplicate Samples

Matrix spike (MS) and matrix spike duplicate (MSD) samples were not required for analysis since labeled compounds were added to all samples.

Laboratory Duplicates

Laboratory duplicates were not required to be analyzed for these sample sets.

Method Reporting Limits

MRLs were acceptable as reported. All values were reported using the laboratory reporting limits. Values were reported as undiluted or when diluted, the reporting limit reflects the dilution factor.

Sample Analyses

Several results were noted by the laboratory to have exceeded the calibration. These results were qualified "J" as estimated.

Estimated Maximum Possible Concentration

Some PCB congener results were flagged as estimated maximum possible concentration (EMPC) due to results that do not meet all method qualitative criteria for positive identification. Results have been qualified "J" or "UJ" to indicate they are estimated.

Overall Assessment

As was determined by this evaluation, the laboratory followed the specified analytical methods and all requested sample analyses were completed. Accuracy was acceptable as demonstrated by the surrogate, labeled compounds, and LCS recovery values, with the exceptions noted above. All data are acceptable as reported or qualified; completeness was 100%. Table 2 summarizes the qualifiers applied to the sample results reviewed in this report.

Data Qualifier Definitions

U Indicates the compound or analyte was analyzed for but not detected at or above the specified limit.

J Indicates an estimated value.

UJ Indicates the compound or analyte was analyzed for but not detected and the specified limit reported is estimated.

Table 2
Data Qualification Summary

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
All	PCBs	All PCBs	Various	Various	Extraction Holding Time Exceedance
Various	PCBs	Various	Various	Various	EMPC
Various	PCBs	Various	Various	Various	Calibration Exceeded
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-011	22.5 pg	22.5UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-049/069	26.1J pg	26.1UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-052	71.7 pg	71.7UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-085/116	10.6J pg	10.6UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-086/087/097/109/119/125	42J pg	42UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-090/101/113	100 pg	100UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-092	20.8 pg	20.8UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-095	130 pg	130UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-099	25.7 pg	25.7UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-110	67.8 pg	67.8UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-118	21.2 pg	21.2UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-129/138/163	107 pg	107UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-132	37.5 pg	37.5UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-135/151	74.6 pg	74.6UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-136	45.1 pg	45.1UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-141	31.8 pg	31.8UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-146	15.4J pg	15.4UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-147/149	133 pg	133UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-153/168	96.8 pg	96.8UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-170	26.6 pg	26.6UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-174	29.8 pg	29.8UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-180/193	49.2 pg	49.2UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-183	19.3J pg	19.3UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-198/199	9.31J pg	9.31UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-044/047/065	13.7JEMPC pg	13.7UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-084	14.7JEMPC pg	14.7UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-091	9.45JEMPC pg	9.45UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-158	10.9JEMPC pg	10.9UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-177	10.9JEMPC pg	10.9UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-179	20.1EMPC pg	20.1UJ pg	Method blank contamination
HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	PCBs	PCB-187	26.8EMPC pg	26.8UJ pg	Method blank contamination
HOUS-COL-VP12-CTRL-WET2-PW-SPME-240819	PCBs	PCB-011	30.3 pg	30.3UJ pg	Method blank contamination
HOUS-COL-VP12-MIXED-WET2-PW-SPME-240819	PCBs	PCB-011	18.4J pg	18.4UJ pg	Method blank contamination
HOUS-COL-VP12-THIN-WET2-PW-SPME-240819	PCBs	PCB-011	17.4J pg	17.4UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-10-BIOC-A	PCBs	PCB-011	28.2 pg	28.2UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-1-PAC-A	PCBs	PCB-011	26.9 pg	26.9UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-PAC-A	PCBs	PCB-011	21.9 pg	21.9UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-PAC-B	PCBs	PCB-011	19.4JEMPC pg	19.4UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-BIOC-A	PCBs	PCB-011	16.7J pg	16.7UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-BIOC-B	PCBs	PCB-011	18.4J pg	18.4UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-GAC-A	PCBs	PCB-011	25 pg	25UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-GAC-B	PCBs	PCB-011	20.4 pg	20.4UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-PAC-A	PCBs	PCB-011	38.2EMPC pg	38.2UJ pg	Method blank contamination

Notes:
EMPC: estimated maximum potential concentration
FD: field duplicate
pg: picogram

References

Arcadis, 2023. *Field Sampling Plan/Quality Assurance Project Plan, Revision 1*. Prepared for General Electric Company, Pittsfield, Massachusetts. December 2023.

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EPA, 2020. USEPA Contract Laboratory Program National Functional Guidelines for High Resolution Superfund Methods Data Review. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. EPA 542-R-20-007. November 2020.

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ANCHOR QEA

Data Validation Report – EPA Stage 2A

April 29, 2025

Project: Housatonic Vernal Pool Pilot Study

Project Number: 240469-10.01

Validation ID: AQ-2025-0064

This report summarizes the review of analytical results for 42 solid-phase microextraction (SPME) fiber samples collected between August 2024 and October 2024. The samples were collected by Anchor QEA and submitted to SGS Analytical (SGS) in Wilmington, North Carolina. Samples were analyzed for the following parameters:

- Polychlorinated biphenyls congeners (PCBs) by U.S. Environmental Protection Agency (EPA) method 1668C

Sample IDs, matrices, analyses, and SGS sample delivery group numbers (SDGs) reviewed in this report are presented in Table 1.

Table 1
Sample IDs, SDGs, Matrices, and Analyses

Sample ID	Lab Sample ID	SDG	Matrix	Analyses (Methods)
HOUS-COL-PW-SPME-PRC-QC-1-240829	B9892_21496_PCB_001	B9892	SPME	PCBs
HOUS-JAR-PW-SPME-PRC-QC-1-240930	B9998_21620_PCB_001	B9998	SPME	PCBs
HOUS-JAR-PW-SPME-PRC-QC-2-240930	B9998_21620_PCB_002	B9998	SPME	PCBs
HOUS-JAR-PW-SPME-PRC-QC-3-240930	B9998_21620_PCB_003	B9998	SPME	PCBs
HOUS-JAR-PW-SPME-PRC-QC-4-240930	B9998_21620_PCB_004	B9998	SPME	PCBs
HOUS-JAR-PW-SPME-PRC-QC-5-240930	B9998_21620_PCB_005	B9998	SPME	PCBs
HOUS-COL-VP81-THIN-WET2-PW-SPME-241001	B9998_21620_PCB_006	B9998	SPME	PCBs
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	B9998_21620_PCB_007	B9998	SPME	PCBs
HOUS-COL-VP81-MIXED-WET2-PW-SPME-241001	B9998_21620_PCB_008	B9998	SPME	PCBs
HOUS-COL-VP81-CTRL-WET2-PW-SPME-241001	B9998_21620_PCB_009	B9998	SPME	PCBs
HOUS-VP12-JAR-SPME-CTRL-A-241030	C1153_21759_PCB_001	C1153	SPME	PCBs
HOUS-VP12-JAR-SPME-CTRL-B-241030	C1153_21759_PCB_002	C1153	SPME	PCBs
HOUS-VP12-JAR-SPME-1-PAC-A-241030	C1153_21759_PCB_003	C1153	SPME	PCBs

Sample ID	Lab Sample ID	SDG	Matrix	Analyses (Methods)
HOUS-VP12-JAR-SPME-1-PAC-B-241030	C1153_21759_PCB_004	C1153	SPME	PCBs
HOUS-VP12-JAR-SPME-2-PAC-A-241030	C1153_21759_PCB_005	C1153	SPME	PCBs
HOUS-VP12-JAR-SPME-2-PAC-B-241030	C1153_21759_PCB_006	C1153	SPME	PCBs
HOUS-VP12-JAR-SPME-5-PAC-A-241030	C1153_21759_PCB_007	C1153	SPME	PCBs
HOUS-VP12-JAR-SPME-5-PAC-B-241030	C1153_21759_PCB_008	C1153	SPME	PCBs
HOUS-VP12-JAR-SPME-2-GAC-A-241030	C1153_21759_PCB_009	C1153	SPME	PCBs
HOUS-VP12-JAR-SPME-2-GAC-B-241030	C1153_21759_PCB_010	C1153	SPME	PCBs
HOUS-VP12-JAR-SPME-5-GAC-A-241030	C1153_21759_PCB_011	C1153	SPME	PCBs
HOUS-VP12-JAR-SPME-5-GAC-B-241030	C1153_21759_PCB_012	C1153	SPME	PCBs
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	C1153_21759_PCB_013	C1153	SPME	PCBs
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	C1153_21759_PCB_014	C1153	SPME	PCBs
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	C1153_21759_PCB_015	C1153	SPME	PCBs
HOUS-VP12-JAR-SPME-10-BIOC-B-241030	C1154_21777_PCB_001-D2	C1154	SPME	PCBs
HOUS-VP81-JAR-SPME-CTRL-A-241030	C1154_21777_PCB_002-D10	C1154	SPME	PCBs
HOUS-VP81-JAR-SPME-CTRL-B-241030	C1154_21777_PCB_003-D10	C1154	SPME	PCBs
HOUS-VP81-JAR-SPME-1-PAC-A-241030	C1154_21777_PCB_004-D2	C1154	SPME	PCBs
HOUS-VP81-JAR-SPME-1-PAC-B-241030	C1154_21777_PCB_005-D2	C1154	SPME	PCBs
HOUS-VP81-JAR-SPME-2-PAC-A-241030	C1154_21777_PCB_006-D2	C1154	SPME	PCBs
HOUS-VP81-JAR-SPME-2-PAC-B-241030	C1154_21777_PCB_007-D2	C1154	SPME	PCBs
HOUS-VP81-JAR-SPME-5-PAC-A-241030	C1154_21777_PCB_008-D2	C1154	SPME	PCBs
HOUS-VP81-JAR-SPME-5-PAC-B-241030	C1154_21777_PCB_009-D2	C1154	SPME	PCBs
HOUS-VP81-JAR-SPME-2-GAC-A-241030	C1154_21777_PCB_010-D10	C1154	SPME	PCBs
HOUS-VP81-JAR-SPME-2-GAC-B-241030	C1154_21777_PCB_011-D10	C1154	SPME	PCBs
HOUS-VP81-JAR-SPME-5-GAC-A-241030	C1154_21777_PCB_012-D2	C1154	SPME	PCBs
HOUS-VP81-JAR-SPME-5-GAC-B-241030	C1154_21777_PCB_013-D2	C1154	SPME	PCBs
HOUS-VP81-JAR-SPME-5-BIOC-A-241030	C1154_21777_PCB_014-D10-RJ	C1154	SPME	PCBs
HOUS-VP81-JAR-SPME-5-BIOC-B-241030	C1154_21777_PCB_015-D10	C1154	SPME	PCBs
HOUS-VP81-JAR-SPME-10-BIOC-A-241030	C1154_21777_PCB_016-D2	C1154	SPME	PCBs
HOUS-VP81-JAR-SPME-10-BIOC-B-241030	C1154_21777_PCB_017-D2	C1154	SPME	PCBs

Data Validation and Qualifications

The following comments refer to the laboratory's performance in meeting the quality assurance/ quality control (QA/QC) guidelines outlined in the analytical procedures. Laboratory results were reviewed using the following guidelines:

- Field Sampling Plan/Quality Assurance Project Plan, Revision1 (Arcadis 2023)
- EPA Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846, Third Edition; EPA1986)
- Region I, EPA-New England Data Validation Functional Guidelines for Evaluating Environmental Analyses (EPA 1996)
- EPA National Functional Guidelines for High Resolution Superfund Methods Data Review (EPA 2020)

Unless noted in this report, laboratory results for the samples listed above were within QC criteria.

Field Documentation

Field documentation was checked for completeness and accuracy. The chain-of-custody forms were signed by SGS at the time of sample receipt. Samples were received in good condition and within the recommended temperature range.

Sample Preservation and Holding Times

Samples were appropriately preserved and analyzed within the holding times with the following exceptions. The extract was analyzed outside of the project-required 45 days for SDGs B9892, C1153, and C1154. The sample results were qualified "J" or "UJ" to indicate they are estimated.

Laboratory Method Blanks

Laboratory method blanks were analyzed at the required frequencies. PCBs were detected in every method blank. In instances where the sample concentration was not significantly greater than (5x greater than) the concentration of the method blank, the sample result was qualified "U".

Field Quality Control

Field QC were not collected with these sample sets.

Surrogates and Labeled Compounds Recoveries

Due to the inability to accurately quantify surrogates and labeled compounds when a sample was analyzed at a dilution of 5x or greater, no data were qualified when surrogate recoveries were outside of control limits. When surrogate recoveries were outside of the control limits in one column,

but results were reported from the other column; no data were qualified. Surrogates recovered outside of control limits in some laboratory QC samples, however; data are not qualified for surrogate outliers in QC samples alone or when outlying surrogates are associated with the non-reporting column. Surrogates and labeled compounds recovered within project-required control limits with one exception. The labeled compounds for PCB-155 recovered above the control limit for HOUS-COL-VP81-CTRL-WET2-PW-SPME-241001. The associated sample results was qualified "J" to indicate a potential high bias.

Laboratory Control Samples

Laboratory control samples (LCS) were analyzed at the required frequency. LCS recoveries were within project-required control limits.

Matrix Spike and Matrix Spike Duplicate Samples

Matrix spike (MS) and matrix spike duplicate (MSD) samples were not required for analysis since labeled compounds were added to all samples.

Laboratory Duplicates

Laboratory duplicates were not required to be analyzed for these sample sets.

Method Reporting Limits

MRLs were acceptable as reported. All values were reported using the laboratory reporting limits. Values were reported as undiluted or when diluted, the reporting limit reflects the dilution factor.

Sample Analyses

Several results were noted by the laboratory to have exceeded the calibration. These results were qualified "J" as estimated.

Estimated Maximum Possible Concentration

Some PCB congener results were flagged as estimated maximum possible concentration (EMPC) due to results that do not meet all method qualitative criteria for positive identification. Results have been qualified "J" or "UJ" to indicate they are estimated.

Overall Assessment

As was determined by this evaluation, the laboratory followed the specified analytical methods and all requested sample analyses were completed. Accuracy was acceptable as demonstrated by the surrogate, labeled compounds, and LCS recovery values, with the exceptions noted above. All data

are acceptable as reported or qualified; completeness was 100%. Table 2 summarizes the qualifiers applied to the sample results reviewed in this report.

Data Qualifier Definitions

U Indicates the compound or analyte was analyzed for but not detected at or above the specified limit.

J Indicates an estimated value.

UJ Indicates the compound or analyte was analyzed for but not detected and the specified limit reported is estimated.

Table 2
Data Qualification Summary

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
Various	PCBs	Various	Various	Various	EMPC
Various	PCBs	Various	Various	Various	Calibration Exceeded
HOUS-COL-PW-SPME-PRC-QC-1-240829	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-COL-PW-SPME-PRC-QC-1-240829	PCBs	PCB-011	43 pg	43UJ pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240829	PCBs	PCB-044/047/065	30.9J pg	30.9UJ pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240829	PCBs	PCB-064	8.89JEMPC pg	8.89UJ pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240829	PCBs	PCB-129/138/163	174 pg	174UJ pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240829	PCBs	PCB-170	28.1EMPC pg	28.1UJ pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240829	PCBs	PCB-174	41.5EMPC pg	41.5UJ pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240829	PCBs	PCB-180/193	81.5 pg	81.5UJ pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240829	PCBs	PCB-183	24.6EMPC pg	24.6UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-PW-SPME-PRC-QC-1-240829	PCBs	PCB-187	57.1EMPC pg	57.1UJ pg	Method blank contamination
HOUS-COL-PW-SPME-PRC-QC-1-240829	PCBs	PCB-194	9.68JEMPC pg	9.68UJ pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-001	17.7J pg	17.7U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-002	4.39JEMPC pg	4.39UJ pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-003	11.4J pg	11.4U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-004	228 pg	228U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-006	334 pg	334U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-008	199 pg	199U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-009	8.83J pg	8.83U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-010	13.2J pg	13.2U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-011	33.1 pg	33.1U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-012/013	31.4JEMPC pg	31.4UJ pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-016	120 pg	120U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-017	390 pg	390U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-018/030	514 pg	514U pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-019	165 pg	165U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-020/028	645 pg	645U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-021/033	69.4 pg	69.4U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-022	100 pg	100U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-025	215 pg	215U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-026/029	407 pg	407U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-031	456 pg	456U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-032	254 pg	254U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-040/071	100 pg	100U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-041	5.82J pg	5.82U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-042	69 pg	69U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-043	15.3J pg	15.3U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-044/047/065	257 pg	257U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-045	60.6 pg	60.6U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-046	28.5 pg	28.5U pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-048	22.2 pg	22.2U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-049/069	194 pg	194U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-050/053	87.2 pg	87.2U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-051	28.9 pg	28.9U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-052	308 pg	308U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-056	13.4J pg	13.4U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-059/062/075	25.4J pg	25.4U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-060	6.68J pg	6.68U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-061/070/074/076	87.2 pg	87.2U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-064	86.5 pg	86.5U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-066	47.6 pg	47.6U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-084	28.2 pg	28.2U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-086/087/097/109/119/125	40.8J pg	40.8U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-095	171 pg	171U pg	Method blank contamination
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-099	39 pg	39U pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	PCBs	PCB-118	23.3 pg	23.3U pg	Method blank contamination
HOUS-COL-VP81-CTRL-WET2-PW-SPME-241001	PCBs	PCB-155	198 pg	198J pg	Labeled Compound %R above CL
HOUS-COL-VP81-CTRL-WET2-PW-SPME-241001	PCBs	PCB-001	24.5 pg	24.5U pg	Method blank contamination
HOUS-COL-VP81-CTRL-WET2-PW-SPME-241001	PCBs	PCB-002	2.3J pg	2.3U pg	Method blank contamination
HOUS-COL-VP81-CTRL-WET2-PW-SPME-241001	PCBs	PCB-003	10.7J pg	10.7U pg	Method blank contamination
HOUS-COL-VP81-CTRL-WET2-PW-SPME-241001	PCBs	PCB-004	245 pg	245U pg	Method blank contamination
HOUS-COL-VP81-CTRL-WET2-PW-SPME-241001	PCBs	PCB-006	169 pg	169U pg	Method blank contamination
HOUS-COL-VP81-CTRL-WET2-PW-SPME-241001	PCBs	PCB-008	156 pg	156U pg	Method blank contamination
HOUS-COL-VP81-CTRL-WET2-PW-SPME-241001	PCBs	PCB-009	5.91J pg	5.91U pg	Method blank contamination
HOUS-COL-VP81-CTRL-WET2-PW-SPME-241001	PCBs	PCB-010	15.1J pg	15.1U pg	Method blank contamination
HOUS-COL-VP81-CTRL-WET2-PW-SPME-241001	PCBs	PCB-012/013	35.3J pg	35.3U pg	Method blank contamination
HOUS-COL-VP81-CTRL-WET2-PW-SPME-241001	PCBs	PCB-016	117 pg	117U pg	Method blank contamination
HOUS-COL-VP81-CTRL-WET2-PW-SPME-241001	PCBs	PCB-018/030	590 pg	590U pg	Method blank contamination
HOUS-COL-VP81-CTRL-WET2-PW-SPME-241001	PCBs	PCB-020/028	750 pg	750U pg	Method blank contamination
HOUS-COL-VP81-CTRL-WET2-PW-SPME-241001	PCBs	PCB-022	110 pg	110U pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-VP81-CTRL-WET2-PW-SPME-241001	PCBs	PCB-026/029	400 pg	400U pg	Method blank contamination
HOUS-COL-VP81-MIXED-WET2-PW-SPME-241001	PCBs	PCB-002	3.85J pg	3.85U pg	Method blank contamination
HOUS-COL-VP81-MIXED-WET2-PW-SPME-241001	PCBs	PCB-004	160 pg	160U pg	Method blank contamination
HOUS-COL-VP81-MIXED-WET2-PW-SPME-241001	PCBs	PCB-006	95.1 pg	95.1U pg	Method blank contamination
HOUS-COL-VP81-MIXED-WET2-PW-SPME-241001	PCBs	PCB-008	111 pg	111U pg	Method blank contamination
HOUS-COL-VP81-MIXED-WET2-PW-SPME-241001	PCBs	PCB-009	5.62J pg	5.62U pg	Method blank contamination
HOUS-COL-VP81-MIXED-WET2-PW-SPME-241001	PCBs	PCB-016	62.4 pg	62.4U pg	Method blank contamination
HOUS-COL-VP81-MIXED-WET2-PW-SPME-241001	PCBs	PCB-018/030	431 pg	431U pg	Method blank contamination
HOUS-COL-VP81-MIXED-WET2-PW-SPME-241001	PCBs	PCB-020/028	603 pg	603U pg	Method blank contamination
HOUS-COL-VP81-MIXED-WET2-PW-SPME-241001	PCBs	PCB-021/033	40.2 pg	40.2U pg	Method blank contamination
HOUS-COL-VP81-MIXED-WET2-PW-SPME-241001	PCBs	PCB-022	100 pg	100U pg	Method blank contamination
HOUS-COL-VP81-MIXED-WET2-PW-SPME-241001	PCBs	PCB-025	166 pg	166U pg	Method blank contamination
HOUS-COL-VP81-MIXED-WET2-PW-SPME-241001	PCBs	PCB-026/029	296 pg	296U pg	Method blank contamination
HOUS-COL-VP81-MIXED-WET2-PW-SPME-241001	PCBs	PCB-031	243 pg	243U pg	Method blank contamination
HOUS-COL-VP81-MIXED-WET2-PW-SPME-241001	PCBs	PCB-041	11.5J pg	11.5U pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-VP81-MIXED-WET2-PW-SPME-241001	PCBs	PCB-045	87.7 pg	87.7U pg	Method blank contamination
HOUS-COL-VP81-MIXED-WET2-PW-SPME-241001	PCBs	PCB-046	28.3 pg	28.3U pg	Method blank contamination
HOUS-COL-VP81-MIXED-WET2-PW-SPME-241001	PCBs	PCB-048	38.5 pg	38.5U pg	Method blank contamination
HOUS-COL-VP81-THIN-WET2-PW-SPME-241001	PCBs	PCB-001	2.17JEMPC pg	2.17UJ pg	Method blank contamination
HOUS-COL-VP81-THIN-WET2-PW-SPME-241001	PCBs	PCB-004	27.8 pg	27.8U pg	Method blank contamination
HOUS-COL-VP81-THIN-WET2-PW-SPME-241001	PCBs	PCB-006	25.9 pg	25.9U pg	Method blank contamination
HOUS-COL-VP81-THIN-WET2-PW-SPME-241001	PCBs	PCB-008	21.2 pg	21.2U pg	Method blank contamination
HOUS-COL-VP81-THIN-WET2-PW-SPME-241001	PCBs	PCB-011	16.5J pg	16.5U pg	Method blank contamination
HOUS-COL-VP81-THIN-WET2-PW-SPME-241001	PCBs	PCB-015	15.5J pg	15.5U pg	Method blank contamination
HOUS-COL-VP81-THIN-WET2-PW-SPME-241001	PCBs	PCB-016	19.3J pg	19.3U pg	Method blank contamination
HOUS-COL-VP81-THIN-WET2-PW-SPME-241001	PCBs	PCB-017	76.6 pg	76.6U pg	Method blank contamination
HOUS-COL-VP81-THIN-WET2-PW-SPME-241001	PCBs	PCB-018/030	77.1 pg	77.1U pg	Method blank contamination
HOUS-COL-VP81-THIN-WET2-PW-SPME-241001	PCBs	PCB-019	28.8 pg	28.8U pg	Method blank contamination
HOUS-COL-VP81-THIN-WET2-PW-SPME-241001	PCBs	PCB-020/028	95.6 pg	95.6U pg	Method blank contamination
HOUS-COL-VP81-THIN-WET2-PW-SPME-241001	PCBs	PCB-021/033	49.3 pg	49.3U pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-COL-VP81-THIN-WET2-PW-SPME-241001	PCBs	PCB-022	22.5 pg	22.5U pg	Method blank contamination
HOUS-COL-VP81-THIN-WET2-PW-SPME-241001	PCBs	PCB-025	118 pg	118U pg	Method blank contamination
HOUS-COL-VP81-THIN-WET2-PW-SPME-241001	PCBs	PCB-026/029	45.5 pg	45.5U pg	Method blank contamination
HOUS-COL-VP81-THIN-WET2-PW-SPME-241001	PCBs	PCB-027	17.3JEMPC pg	17.3UJ pg	Method blank contamination
HOUS-COL-VP81-THIN-WET2-PW-SPME-241001	PCBs	PCB-031	97.5 pg	97.5U pg	Method blank contamination
HOUS-COL-VP81-THIN-WET2-PW-SPME-241001	PCBs	PCB-032	58.1 pg	58.1U pg	Method blank contamination
HOUS-COL-VP81-THIN-WET2-PW-SPME-241001	PCBs	PCB-042	443 pg	443U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-001	23.3 pg	23.3U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-002	6.26J pg	6.26U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-003	11.9J pg	11.9U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-006	462 pg	462U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-009	12.7J pg	12.7U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-011	38.1 pg	38.1U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-012/013	37.7J pg	37.7U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-016	189 pg	189U pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-020/028	542 pg	542U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-021/033	69.9 pg	69.9U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-022	98.6 pg	98.6U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-025	196 pg	196U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-026/029	366 pg	366U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-031	445 pg	445U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-040/071	108 pg	108U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-041	7.55J pg	7.55U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-042	68.2 pg	68.2U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-043	13.7J pg	13.7U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-044/047/065	252 pg	252U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-045	58.1 pg	58.1U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-046	33.3 pg	33.3U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-048	26.3 pg	26.3U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-049/069	194 pg	194U pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-050/053	99 pg	99U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-051	29.3 pg	29.3U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-052	304 pg	304U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-056	16J pg	16U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-059/062/075	21.5J pg	21.5U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-060	9.23J pg	9.23U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-061/070/074/076	105 pg	105U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-064	85 pg	85U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-066	59.2 pg	59.2U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-084	20.8 pg	20.8U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-086/087/097/109/119/125	25.5J pg	25.5U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-090/101/113	42.4J pg	42.4U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-091	13.8J pg	13.8U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-092	12.7J pg	12.7U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-095	60.1 pg	60.1U pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-099	16.1J pg	16.1U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-110	38.9 pg	38.9U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-118	14.1J pg	14.1U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-129/138/163	17.6J pg	17.6U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-132	7.68J pg	7.68U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-135/151	11.7J pg	11.7U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-136	6.8J pg	6.8U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-146	3.65JEMPC pg	3.65UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-147/149	21.9J pg	21.9U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-153/168	17.6J pg	17.6U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-179	2.77J pg	2.77U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-180/193	8.76J pg	8.76U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-183	5.04JEMPC pg	5.04UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-1-240930	PCBs	PCB-187	5.8J pg	5.8U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-001	1.43JEMPC pg	1.43UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-004	7.69J pg	7.69U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-006	7.28J pg	7.28U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-008	11.3J pg	11.3U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-011	16.2JEMPC pg	16.2UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-015	5.5J pg	5.5U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-016	6.46J pg	6.46U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-017	15.5J pg	15.5U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-018/030	23.8J pg	23.8U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-019	6.93JEMPC pg	6.93UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-020/028	30.7J pg	30.7U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-021/033	10.6J pg	10.6U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-022	6.77J pg	6.77U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-025	3.47J pg	3.47U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-026/029	8.35J pg	8.35U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-027	3.15J pg	3.15U pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-031	28.3 pg	28.3U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-032	10.2JEMPC pg	10.2UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-040/071	10.5JEMPC pg	10.5U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-041	3.28J pg	3.28U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-042	7.27J pg	7.27U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-044/047/065	34J pg	34U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-045	7.15J pg	7.15U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-046	1.87J pg	1.87U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-048	6.56JEMPC pg	6.56UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-049/069	22.3J pg	22.3U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-050/053	7.44J pg	7.44U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-051	2.78JEMPC pg	2.78UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-052	41.4 pg	41.4U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-056	6.02J pg	6.02U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-059/062/075	2.26JEMPC pg	2.26UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-060	4.33JEMPC pg	4.33UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-061/070/074/076	29.8J pg	29.8U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-066	13.3J pg	13.3U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-084	8.89JEMPC pg	8.89UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-086/087/097/109/119/125	19.1J pg	19.1U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-090/101/113	51.7J pg	51.7U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-091	8.62J pg	8.62U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-092	13J pg	13U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-095	69.1 pg	69.1U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-099	16.6J pg	16.6U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-110	33.7 pg	33.7U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-118	12J pg	12U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-129/138/163	41.6J pg	41.6U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-132	14.4J pg	14.4U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-135/151	32.7J pg	32.7U pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-136	16.5J pg	16.5U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-146	6.47JEMPC pg	6.47UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-147/149	56 pg	56U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-153/168	42.5 pg	42.5U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-170	5.12JEMPC pg	5.12UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-174	8.57J pg	8.57U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-177	4.27JEMPC pg	4.27UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-179	6.76J pg	6.76U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-180/193	16J pg	16U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-183	9.52J pg	9.52U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-187	14.6J pg	14.6U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-2-240930	PCBs	PCB-194	1.73JEMPC pg	1.73UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-001	15.4J pg	15.4U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-002	5.78J pg	5.78U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-003	12.1J pg	12.1U pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-004	262 pg	262U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-006	284 pg	284U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-008	174 pg	174U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-009	8.79J pg	8.79U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-010	10.8J pg	10.8U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-011	33.3 pg	33.3U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-012/013	32.1J pg	32.1U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-015	97 pg	97U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-016	143 pg	143U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-017	404 pg	404U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-018/030	606 pg	606U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-019	161 pg	161U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-020/028	418 pg	418U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-021/033	37.7J pg	37.7U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-022	65.3 pg	65.3U pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-025	152 pg	152U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-026/029	293 pg	293U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-031	327 pg	327U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-032	246 pg	246U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-040/071	70.4 pg	70.4U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-041	5.09J pg	5.09U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-042	45.5 pg	45.5U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-043	8.61J pg	8.61U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-044/047/065	179 pg	179U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-045	48 pg	48U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-046	21.2 pg	21.2U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-048	17J pg	17U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-049/069	132 pg	132U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-050/053	61.5 pg	61.5U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-051	18.7J pg	18.7U pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-052	219 pg	219U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-056	8.84J pg	8.84U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-059/062/075	15.9J pg	15.9U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-060	5.34JEMPC pg	5.34UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-061/070/074/076	62.9J pg	62.9U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-064	59 pg	59U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-066	33.4 pg	33.4U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-084	16.3J pg	16.3U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-086/087/097/109/119/125	17.6J pg	17.6U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-090/101/113	35.6J pg	35.6U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-091	11.6J pg	11.6U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-092	9.47J pg	9.47U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-095	53.9 pg	53.9U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-099	13.7J pg	13.7U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-110	29.2 pg	29.2U pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-118	10.8J pg	10.8U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-129/138/163	15.1JEMPC pg	15.1UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-132	6.32JEMPC pg	6.32UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-135/151	14J pg	14U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-136	7.28J pg	7.28U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-146	3.38JEMPC pg	3.38UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-147/149	22.1J pg	22.1U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-153/168	17.4J pg	17.4U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-170	3.6J pg	3.6U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-174	2.97JEMPC pg	2.97UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-179	2.64J pg	2.64U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-180/193	7.31J pg	7.31U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-183	5.91J pg	5.91U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-187	4.96J pg	4.96U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-3-240930	PCBs	PCB-194	1.5J pg	1.5U pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-002	5.8J pg	5.8U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-004	200 pg	200U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-006	83.3 pg	83.3U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-008	134 pg	134U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-009	8.33J pg	8.33U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-016	62.7 pg	62.7U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-018/030	527 pg	527U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-020/028	743 pg	743U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-021/033	66.6 pg	66.6U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-022	121 pg	121U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-025	192 pg	192U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-026/029	392 pg	392U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-031	295 pg	295U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-040/071	142 pg	142U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-041	9.72J pg	9.72U pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-042	92.5 pg	92.5U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-043	23.2 pg	23.2U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-044/047/065	365 pg	365U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-046	34 pg	34U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-048	23.3 pg	23.3U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-049/069	275 pg	275U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-052	385 pg	385U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-056	13.7J pg	13.7U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-060	9JEMPC pg	9UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-061/070/074/076	77.1J pg	77.1U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-064	133 pg	133U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-066	40.2 pg	40.2U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-084	25 pg	25U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-086/087/097/109/119/125	33.8J pg	33.8U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-090/101/113	45.1J pg	45.1U pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-092	14.7JEMPC pg	14.7UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-095	75.9 pg	75.9U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-099	18.6J pg	18.6U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-110	50.1 pg	50.1U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-118	13.9J pg	13.9U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-129/138/163	37.1J pg	37.1U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-132	11.2JEMPC pg	11.2UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-135/151	23.9J pg	23.9U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-136	13.1J pg	13.1U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-146	6.82J pg	6.82U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-147/149	36.8J pg	36.8U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-153/168	34.5J pg	34.5U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-170	9.43JEMPC pg	9.43UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-174	11.7J pg	11.7U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-177	7.54J pg	7.54U pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-179	9.05J pg	9.05U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-180/193	19.3J pg	19.3U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-183	11.1J pg	11.1U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-187	12.8J pg	12.8U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-4-240930	PCBs	PCB-194	3.9JEMPC pg	3.9UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-001	16.7J pg	16.7U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-002	2.09JEMPC pg	2.09UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-003	8.81J pg	8.81U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-004	240 pg	240U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-006	244 pg	244U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-008	163 pg	163U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-009	6.54J pg	6.54U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-010	10.1JEMPC pg	10.1UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-011	29.1 pg	29.1U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-012/013	18.6J pg	18.6U pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-015	87.9 pg	87.9U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-016	92.8 pg	92.8U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-017	312 pg	312U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-018/030	395 pg	395U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-019	151 pg	151U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-020/028	341 pg	341U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-021/033	44.5 pg	44.5U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-022	61 pg	61U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-025	116 pg	116U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-026/029	216 pg	216U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-027	62 pg	62U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-031	267 pg	267U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-032	207 pg	207U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-040/071	58.5 pg	58.5U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-041	7.5J pg	7.5U pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-042	38.4 pg	38.4U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-043	7.74J pg	7.74U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-044/047/065	149 pg	149U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-045	33.6 pg	33.6U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-046	17.6J pg	17.6U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-048	17.9J pg	17.9U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-049/069	110 pg	110U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-050/053	54.5 pg	54.5U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-051	19.8J pg	19.8U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-052	181 pg	181U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-056	11.5J pg	11.5U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-059/062/075	14.2J pg	14.2U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-060	6.26J pg	6.26U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-061/070/074/076	68.1J pg	68.1U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-064	50 pg	50U pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-066	38.1 pg	38.1U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-084	12.3J pg	12.3U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-086/087/097/109/119/125	15.7J pg	15.7U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-090/101/113	29.8J pg	29.8U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-091	8.19J pg	8.19U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-092	7.45JEMPC pg	7.45UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-095	43.5 pg	43.5U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-099	12.8J pg	12.8U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-110	28.2 pg	28.2U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-118	11.4J pg	11.4U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-129/138/163	21.1J pg	21.1U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-132	7.14JEMPC pg	7.14UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-135/151	10.1JEMPC pg	10.1UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-136	5.86JEMPC pg	5.86UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-146	5.93JEMPC pg	5.93UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-147/149	21J pg	21U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-153/168	21.1J pg	21.1U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-179	2.01JEMPC pg	2.01UJ pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-180/193	9.91J pg	9.91U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-183	7.31J pg	7.31U pg	Method blank contamination
HOUS-JAR-PW-SPME-PRC-QC-5-240930	PCBs	PCB-187	6.24JEMPC pg	6.24UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-004	14.7U pg	14.7UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-008	15.6U pg	15.6UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-011	422 pg	422UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-016	23.7U pg	23.7UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-017	22.6U pg	22.6UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-018/030	15.6U pg	15.6UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-020/028	21.1U pg	21.1UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-021/033	21.1U pg	21.1UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-022	20.2U pg	20.2UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-026/029	22U pg	22UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-031	19.4U pg	19.4UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-032	14.9U pg	14.9UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-037	22.2U pg	22.2UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-040/071	32.1J pg	32.1UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-041	13.9U pg	13.9UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-042	21.9 pg	21.9UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-044/047/065	156 pg	156UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-045	11.7U pg	11.7UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-046	13.1U pg	13.1UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-048	11.1U pg	11.1UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-049/069	208 pg	208UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-050/053	32.8J pg	32.8UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-052	614 pg	614UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-056	21.8U pg	21.8UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-059/062/075	9.1J pg	9.1UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-060	25.7U pg	25.7UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-061/070/074/076	141 pg	141UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-064	34.3 pg	34.3UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-066	50.1 pg	50.1UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-B-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP12-JAR-SPME-10-BIOC-B-241030	PCBs	PCB-004	16.6J pg	16.6UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-B-241030	PCBs	PCB-008	15J pg	15UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-B-241030	PCBs	PCB-011	29.4 pg	29.4UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-B-241030	PCBs	PCB-015	20.9 pg	20.9UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-B-241030	PCBs	PCB-018/030	17JEMPC pg	17UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-B-241030	PCBs	PCB-020/028	21.6JEMPC pg	21.6UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-B-241030	PCBs	PCB-031	18.3JEMPC pg	18.3UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-B-241030	PCBs	PCB-054	17.4J pg	17.4UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-10-BIOC-B-241030	PCBs	PCB-077	22.8EMPC pg	22.8UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-10-BIOC-B-241030	PCBs	PCB-126	25.2EMPC pg	25.2UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-004	5.92U pg	5.92UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-008	7.49U pg	7.49UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-011	126 pg	126UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-016	13.8U pg	13.8UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-017	13.1U pg	13.1UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-018/030	17.5J pg	17.5UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-020/028	14.1JEMPC pg	14.1UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-021/033	11.3U pg	11.3UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-022	10.8U pg	10.8UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-026/029	11.6U pg	11.6UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-031	17.7J pg	17.7UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-032	8.72U pg	8.72UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-037	11.7U pg	11.7UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-040/071	42.8 pg	42.8UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-041	14.4U pg	14.4UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-042	34.4 pg	34.4UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-044/047/065	235 pg	235UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-045	12.1U pg	12.1UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-046	13.9U pg	13.9UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-048	11.5U pg	11.5UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-049/069	348 pg	348UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-050/053	37.4J pg	37.4UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-056	22.2 pg	22.2UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-059/062/075	17.4J pg	17.4UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-060	23U pg	23UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-061/070/074/076	239 pg	239UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-064	54.7 pg	54.7UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-1-PAC-A-241030	PCBs	PCB-066	115 pg	115UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-004	7.28U pg	7.28UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-008	5.05U pg	5.05UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-011	132 pg	132UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-016	9.25U pg	9.25UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-017	8.81U pg	8.81UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-018/030	14.1JEMPC pg	14.1UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-020/028	16.5J pg	16.5UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-021/033	8.2U pg	8.2UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-022	7.83U pg	7.83UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-026/029	8.45U pg	8.45UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-031	16.3J pg	16.3UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-032	5.86U pg	5.86UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-037	8.52U pg	8.52UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-040/071	45.5 pg	45.5UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-041	9.4U pg	9.4UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-042	35.4 pg	35.4UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-044/047/065	251 pg	251UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-045	9.64J pg	9.64UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-046	9.05U pg	9.05UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-048	10.5J pg	10.5UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-049/069	399 pg	399UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-050/053	41.3 pg	41.3UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-056	17.8U pg	17.8UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-059/062/075	21.7J pg	21.7UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-060	21.3U pg	21.3UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-061/070/074/076	248 pg	248UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-064	64.2 pg	64.2UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-1-PAC-B-241030	PCBs	PCB-066	105 pg	105UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-004	4.26J pg	4.26UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-008	4.73U pg	4.73UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-011	123 pg	123UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-016	5.9U pg	5.9UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-017	5.62U pg	5.62UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-018/030	12.4J pg	12.4UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-020/028	14.5J pg	14.5UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-021/033	5.61U pg	5.61UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-022	5.36U pg	5.36UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-026/029	6.74JEMPC pg	6.74UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-031	14.9J pg	14.9UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-032	3.74U pg	3.74UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-037	5.83U pg	5.83UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-040/071	37.8J pg	37.8UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-041	3.86U pg	3.86UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-042	29.3 pg	29.3UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-044/047/065	224 pg	224UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-045	7.27JEMPC pg	7.27UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-046	3.72U pg	3.72UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-048	3.09U pg	3.09UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-049/069	345 pg	345UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-050/053	35.7J pg	35.7UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-056	16.9U pg	16.9UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-059/062/075	16.1J pg	16.1UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-060	20.1U pg	20.1UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-061/070/074/076	215 pg	215UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-064	55.5 pg	55.5UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-A-241030	PCBs	PCB-066	83.7 pg	83.7UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-004	5.9J pg	5.9UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-008	5.24J pg	5.24UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-011	98.3 pg	98.3UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-016	7.82JEMPC pg	7.82UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-017	5.4U pg	5.4UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-018/030	10.6JEMPC pg	10.6UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-020/028	17.4J pg	17.4UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-021/033	3.88U pg	3.88UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-022	4.78J pg	4.78UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-026/029	7.64J pg	7.64UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-031	13.4J pg	13.4UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-032	5.25JEMPC pg	5.25UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-037	4.08U pg	4.08UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-040/071	33.8J pg	33.8UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-041	2.67U pg	2.67UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-042	26.9 pg	26.9UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-044/047/065	192 pg	192UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-045	5.74J pg	5.74UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-046	2.52U pg	2.52UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-048	7.45J pg	7.45UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-049/069	291 pg	291UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-050/053	30.2J pg	30.2UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-056	15.2U pg	15.2UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-059/062/075	14.4J pg	14.4UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-060	18U pg	18UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-061/070/074/076	208 pg	208UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-064	49 pg	49UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-GAC-B-241030	PCBs	PCB-066	82.8 pg	82.8UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-004	5.57U pg	5.57UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-008	5.64U pg	5.64UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-011	168 pg	168UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-016	9.82U pg	9.82UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-017	9.35U pg	9.35UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-018/030	8.61J pg	8.61UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-020/028	15.6JEMPC pg	15.6UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-021/033	8.18U pg	8.18UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-022	7.81U pg	7.81UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-026/029	8.42U pg	8.42UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-031	19.4J pg	19.4UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-032	6.22U pg	6.22UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-037	8.49U pg	8.49UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-040/071	24.3J pg	24.3UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-041	8.39U pg	8.39UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-042	16.3J pg	16.3UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-044/047/065	121 pg	121UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-045	7.05U pg	7.05UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-046	8.08U pg	8.08UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-048	8.28J pg	8.28UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-049/069	190 pg	190UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-050/053	19.7J pg	19.7UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-052	532 pg	532UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-056	12.1J pg	12.1UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-059/062/075	10.4J pg	10.4UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-060	12.7U pg	12.7UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-061/070/074/076	130 pg	130UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-064	33.5 pg	33.5UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-A-241030	PCBs	PCB-066	70.3 pg	70.3UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-004	7.89J pg	7.89UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-008	12.3J pg	12.3UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-011	136 pg	136UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-016	30.3 pg	30.3UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-017	29.3EMPC pg	29.3UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-018/030	68.3 pg	68.3UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-020/028	81 pg	81UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-021/033	38.2J pg	38.2UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-022	26.6 pg	26.6UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-026/029	13.2JEMPC pg	13.2UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-031	95.2 pg	95.2UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-032	28 pg	28UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-037	7.9J pg	7.9UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-040/071	74.7 pg	74.7UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-041	9.72JEMPC pg	9.72UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-042	47.1 pg	47.1UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-044/047/065	261 pg	261UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-045	23.5 pg	23.5UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-046	13.1J pg	13.1UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-048	33.7 pg	33.7UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-049/069	312 pg	312UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-050/053	43 pg	43UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-056	33.5 pg	33.5UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-059/062/075	22.8J pg	22.8UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-060	22.6 pg	22.6UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-061/070/074/076	257 pg	257UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-064	90.5 pg	90.5UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-2-PAC-B-241030	PCBs	PCB-066	134 pg	134UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	PCB-004	5.04U pg	5.04UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	PCB-008	5.2U pg	5.2UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	PCB-011	170 pg	170UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	PCB-016	12.1U pg	12.1UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	PCB-017	11.6U pg	11.6UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	PCB-018/030	17.2J pg	17.2UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	PCB-020/028	17J pg	17UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	PCB-021/033	9.63U pg	9.63UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	PCB-022	9.21U pg	9.21UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	PCB-026/029	11.4JEMPC pg	11.4UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	PCB-031	15JEMPC pg	15UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	PCB-032	7.64U pg	7.64UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	PCB-037	10.1U pg	10.1UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	PCB-040/071	96.2 pg	96.2UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	PCB-041	6.39U pg	6.39UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	PCB-042	67.7 pg	67.7UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	PCB-044/047/065	593 pg	593UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	PCB-045	24.5 pg	24.5UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	PCB-046	6.04U pg	6.04UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	PCB-048	18.9JEMPC pg	18.9UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	PCB-056	27.7 pg	27.7UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	PCB-059/062/075	43.6J pg	43.6UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	PCB-060	27.7U pg	27.7UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	PCB-061/070/074/076	496 pg	496UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	PCB-064	133 pg	133UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-A-241030	PCBs	PCB-066	124EMPC pg	124UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	PCBs	PCB-004	7.21U pg	7.21UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	PCBs	PCB-008	9.45U pg	9.45UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	PCBs	PCB-011	137 pg	137UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	PCBs	PCB-016	11U pg	11UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	PCBs	PCB-017	10.5U pg	10.5UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	PCBs	PCB-018/030	20.7J pg	20.7UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	PCBs	PCB-020/028	20J pg	20UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	PCBs	PCB-021/033	8.32U pg	8.32UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	PCBs	PCB-022	7.96U pg	7.96UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	PCBs	PCB-026/029	16.2J pg	16.2UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	PCBs	PCB-031	19.1J pg	19.1UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	PCBs	PCB-032	11.9JEMPC pg	11.9UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	PCBs	PCB-037	8.75U pg	8.75UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	PCBs	PCB-040/071	121 pg	121UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	PCBs	PCB-041	6.49U pg	6.49UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	PCBs	PCB-042	92.2 pg	92.2UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	PCBs	PCB-045	25.3 pg	25.3UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	PCBs	PCB-046	9.28J pg	9.28UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	PCBs	PCB-048	18.9JEMPC pg	18.9UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	PCBs	PCB-056	37.9U pg	37.9UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	PCBs	PCB-059/062/075	47.2J pg	47.2UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	PCBs	PCB-060	44.8U pg	44.8UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	PCBs	PCB-061/070/074/076	576 pg	576UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	PCBs	PCB-064	162 pg	162UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-BIOC-B-241030	PCBs	PCB-066	169 pg	169UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-004	7.49U pg	7.49UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-008	6.02U pg	6.02UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-011	173 pg	173UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-016	10.3U pg	10.3UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-017	9.86U pg	9.86UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-018/030	11.4J pg	11.4UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-020/028	17.1J pg	17.1UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-021/033	9.89U pg	9.89UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-022	9.46U pg	9.46UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-026/029	12.9JEMPC pg	12.9UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-031	15.8J pg	15.8UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-032	6.5U pg	6.5UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-037	10.4U pg	10.4UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-040/071	18.5J pg	18.5UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-041	8.65U pg	8.65UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-042	17J pg	17UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-044/047/065	110 pg	110UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-045	7.25U pg	7.25UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-046	8.17U pg	8.17UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-048	6.93U pg	6.93UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-049/069	134 pg	134UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-050/053	12.2J pg	12.2UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-052	354 pg	354UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-056	11.3U pg	11.3UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-059/062/075	8.53J pg	8.53UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-060	13.3U pg	13.3UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-061/070/074/076	127 pg	127UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-064	29.2 pg	29.2UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-A-241030	PCBs	PCB-066	63.6 pg	63.6UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-004	6.9U pg	6.9UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-008	5.63U pg	5.63UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-011	151 pg	151UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-016	11.9U pg	11.9UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-017	11.3U pg	11.3UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-018/030	7.81U pg	7.81UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-020/028	11.3J pg	11.3UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-021/033	10.8U pg	10.8UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-022	10.3U pg	10.3UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-026/029	11.2U pg	11.2UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-031	10.9J pg	10.9UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-032	7.48U pg	7.48UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-037	11.4U pg	11.4UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-040/071	10.4JEMPC pg	10.4UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-041	4.73U pg	4.73UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-042	10J pg	10UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-044/047/065	65 pg	65UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-045	3.97U pg	3.97UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-046	4.47U pg	4.47UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-048	3.79U pg	3.79UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-049/069	86.5 pg	86.5UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-050/053	9.32J pg	9.32UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-052	234 pg	234UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-056	7.97U pg	7.97UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-059/062/075	3.26JEMPC pg	3.26UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-060	9.41U pg	9.41UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-061/070/074/076	77.1J pg	77.1UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-064	18.7J pg	18.7UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-GAC-B-241030	PCBs	PCB-066	28.9EMPC pg	28.9UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-004	3.68J pg	3.68UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-008	3.57U pg	3.57UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-011	110 pg	110UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-016	6.52U pg	6.52UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-017	6.21U pg	6.21UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-018/030	9.87J pg	9.87UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-020/028	14.5J pg	14.5UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-021/033	7.29J pg	7.29UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-022	5.01U pg	5.01UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-026/029	5.4U pg	5.4UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-031	12.6J pg	12.6UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-032	4.13U pg	4.13UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-037	5.45U pg	5.45UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-040/071	12.6J pg	12.6UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-041	3.46U pg	3.46UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-042	10.1J pg	10.1UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-044/047/065	56.5J pg	56.5UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-045	2.91U pg	2.91UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-046	3.33U pg	3.33UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-048	5.19J pg	5.19UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-049/069	73.1 pg	73.1UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-050/053	7JEMPC pg	7UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-052	180 pg	180UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-056	4.8U pg	4.8UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-059/062/075	2.15U pg	2.15UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-060	5.73U pg	5.73UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-061/070/074/076	64.8J pg	64.8UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-064	16.2J pg	16.2UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-A-241030	PCBs	PCB-066	32.6 pg	32.6UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-004	7.94U pg	7.94UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-008	4.39U pg	4.39UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-011	161 pg	161UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-016	6.86U pg	6.86UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-017	6.53U pg	6.53UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-018/030	9.42J pg	9.42UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-020/028	13.4J pg	13.4UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-021/033	7.57U pg	7.57UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-022	7.23U pg	7.23UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-026/029	7.79U pg	7.79UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-031	11.8J pg	11.8UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-032	4.34U pg	4.34UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-037	7.86U pg	7.86UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-040/071	11.9J pg	11.9UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-041	5.83U pg	5.83UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-042	8.7J pg	8.7UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-044/047/065	65.1 pg	65.1UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-045	4.9U pg	4.9UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-046	5.62U pg	5.62UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-048	4.66U pg	4.66UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-049/069	84.9 pg	84.9UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-050/053	10.3JEMPC pg	10.3UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-052	216 pg	216UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-056	6.85U pg	6.85UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-059/062/075	3.62U pg	3.62UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-060	8.18U pg	8.18UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-061/070/074/076	76.2J pg	76.2UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-064	17.2J pg	17.2UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-5-PAC-B-241030	PCBs	PCB-066	34.7 pg	34.7UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-CTRL-A-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP12-JAR-SPME-CTRL-A-241030	PCBs	PCB-011	144 pg	144UJ pg	Method blank contamination
HOUS-VP12-JAR-SPME-CTRL-B-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP12-JAR-SPME-CTRL-B-241030	PCBs	PCB-011	126 pg	126UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-10-BIOC-A-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP81-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-011	15.1J pg	15.1UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-054	7.88J pg	7.88UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-064	15.5J pg	15.5UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-10-BIOC-A-241030	PCBs	PCB-066	24.5EMPC pg	24.5UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-10-BIOC-B-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP81-JAR-SPME-10-BIOC-B-241030	PCBs	PCB-011	17.3J pg	17.3UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-10-BIOC-B-241030	PCBs	PCB-054	6.74J pg	6.74UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-10-BIOC-B-241030	PCBs	PCB-061/070/074/076	75J pg	75UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-10-BIOC-B-241030	PCBs	PCB-064	8.36JEMPC pg	8.36UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-10-BIOC-B-241030	PCBs	PCB-066	20.7 pg	20.7UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-1-PAC-A-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP81-JAR-SPME-1-PAC-A-241030	PCBs	PCB-004	3.7J pg	3.7UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-1-PAC-A-241030	PCBs	PCB-008	4.35J pg	4.35UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-1-PAC-A-241030	PCBs	PCB-011	13.3J pg	13.3UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-1-PAC-A-241030	PCBs	PCB-018/030	9.55JEMPC pg	9.55UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-1-PAC-A-241030	PCBs	PCB-020/028	8.46JEMPC pg	8.46UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-1-PAC-A-241030	PCBs	PCB-031	9.21J pg	9.21UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-1-PAC-A-241030	PCBs	PCB-054	5.65JEMPC pg	5.65UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-1-PAC-A-241030	PCBs	PCB-064	18.8JEMPC pg	18.8UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-1-PAC-A-241030	PCBs	PCB-104	23.7EMPC pg	23.7UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP81-JAR-SPME-1-PAC-A-241030	PCBs	PCB-126	19.4J pg	19.4UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-1-PAC-B-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP81-JAR-SPME-1-PAC-B-241030	PCBs	PCB-004	8.45J pg	8.45UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-1-PAC-B-241030	PCBs	PCB-008	11.4J pg	11.4UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-1-PAC-B-241030	PCBs	PCB-011	19.7J pg	19.7UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-1-PAC-B-241030	PCBs	PCB-015	9.42J pg	9.42UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-1-PAC-B-241030	PCBs	PCB-018/030	17.5J pg	17.5UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-1-PAC-B-241030	PCBs	PCB-020/028	14.1JEMPC pg	14.1UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-1-PAC-B-241030	PCBs	PCB-031	14JEMPC pg	14UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-1-PAC-B-241030	PCBs	PCB-054	13.9J pg	13.9UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-1-PAC-B-241030	PCBs	PCB-064	28EMPC pg	28UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-1-PAC-B-241030	PCBs	PCB-077	20.2 pg	20.2UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-GAC-A-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP81-JAR-SPME-2-GAC-A-241030	PCBs	PCB-004	9.89J pg	9.89UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-GAC-A-241030	PCBs	PCB-011	20.1 pg	20.1UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP81-JAR-SPME-2-GAC-A-241030	PCBs	PCB-015	6.38J pg	6.38UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-GAC-A-241030	PCBs	PCB-018/030	19.8J pg	19.8UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-GAC-A-241030	PCBs	PCB-054	29.8EMPC pg	29.8UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-GAC-B-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP81-JAR-SPME-2-GAC-B-241030	PCBs	PCB-008	13.8J pg	13.8UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-GAC-B-241030	PCBs	PCB-011	30.5 pg	30.5UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-GAC-B-241030	PCBs	PCB-064	17.6JEMPC pg	17.6UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-PAC-A-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP81-JAR-SPME-2-PAC-A-241030	PCBs	PCB-004	11.3J pg	11.3UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-PAC-A-241030	PCBs	PCB-008	8.94JEMPC pg	8.94UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-PAC-A-241030	PCBs	PCB-011	24.8 pg	24.8UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-PAC-A-241030	PCBs	PCB-015	14.1J pg	14.1UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-PAC-A-241030	PCBs	PCB-018/030	12.2J pg	12.2UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-PAC-A-241030	PCBs	PCB-020/028	15.4J pg	15.4UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-PAC-A-241030	PCBs	PCB-031	16.4J pg	16.4UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP81-JAR-SPME-2-PAC-A-241030	PCBs	PCB-054	12.8J pg	12.8UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-PAC-A-241030	PCBs	PCB-061/070/074/076	77J pg	77UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-PAC-A-241030	PCBs	PCB-064	22.2 pg	22.2UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-PAC-A-241030	PCBs	PCB-077	11.7JEMPC pg	11.7UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-PAC-A-241030	PCBs	PCB-104	14.7JEMPC pg	14.7UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-PAC-A-241030	PCBs	PCB-155	19JEMPC pg	19UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-PAC-B-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP81-JAR-SPME-2-PAC-B-241030	PCBs	PCB-011	16.6J pg	16.6UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-PAC-B-241030	PCBs	PCB-031	7.76JEMPC pg	7.76UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-PAC-B-241030	PCBs	PCB-054	6.37JEMPC pg	6.37UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-PAC-B-241030	PCBs	PCB-061/070/074/076	53.2J pg	53.2UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-PAC-B-241030	PCBs	PCB-064	10.6JEMPC pg	10.6UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-PAC-B-241030	PCBs	PCB-066	36.5 pg	36.5UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-PAC-B-241030	PCBs	PCB-077	6.03JEMPC pg	6.03UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-2-PAC-B-241030	PCBs	PCB-104	6.52J pg	6.52UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP81-JAR-SPME-2-PAC-B-241030	PCBs	PCB-155	6.07JEMPC pg	6.07UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-BIOC-A-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP81-JAR-SPME-5-BIOC-B-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP81-JAR-SPME-5-GAC-A-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP81-JAR-SPME-5-GAC-A-241030	PCBs	PCB-004	3.16J pg	3.16UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-GAC-A-241030	PCBs	PCB-008	4.02J pg	4.02UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-GAC-A-241030	PCBs	PCB-011	19.3J pg	19.3UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-GAC-A-241030	PCBs	PCB-015	5.39J pg	5.39UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-GAC-A-241030	PCBs	PCB-018/030	8.47J pg	8.47UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-GAC-A-241030	PCBs	PCB-020/028	7.43JEMPC pg	7.43UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-GAC-A-241030	PCBs	PCB-031	6.27JEMPC pg	6.27UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-GAC-A-241030	PCBs	PCB-054	3.43J pg	3.43UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-GAC-A-241030	PCBs	PCB-061/070/074/076	63.5J pg	63.5UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-GAC-A-241030	PCBs	PCB-064	13J pg	13UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-GAC-A-241030	PCBs	PCB-077	7.08JEMPC pg	7.08UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP81-JAR-SPME-5-GAC-A-241030	PCBs	PCB-104	9.88J pg	9.88UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-GAC-B-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP81-JAR-SPME-5-GAC-B-241030	PCBs	PCB-004	7.24J pg	7.24UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-GAC-B-241030	PCBs	PCB-008	6.84J pg	6.84UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-GAC-B-241030	PCBs	PCB-011	70.6EMPC pg	70.6UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-GAC-B-241030	PCBs	PCB-015	7.97J pg	7.97UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-GAC-B-241030	PCBs	PCB-020/028	11.6J pg	11.6UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-GAC-B-241030	PCBs	PCB-031	9.77J pg	9.77UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-GAC-B-241030	PCBs	PCB-054	7.04JEMPC pg	7.04UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-GAC-B-241030	PCBs	PCB-061/070/074/076	56.2J pg	56.2UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-GAC-B-241030	PCBs	PCB-064	14.3JEMPC pg	14.3UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-GAC-B-241030	PCBs	PCB-066	19.2JEMPC pg	19.2UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-GAC-B-241030	PCBs	PCB-077	10.8JEMPC pg	10.8UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-GAC-B-241030	PCBs	PCB-104	8.75JEMPC pg	8.75UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-PAC-A-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP81-JAR-SPME-5-PAC-A-241030	PCBs	PCB-011	16.1J pg	16.1UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-PAC-A-241030	PCBs	PCB-061/070/074/076	25.3JEMPC pg	25.3UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-PAC-A-241030	PCBs	PCB-066	17.5JEMPC pg	17.5UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-PAC-A-241030	PCBs	PCB-105	51.2EMPC pg	51.2UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-PAC-A-241030	PCBs	PCB-188	15.5J pg	15.5UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-PAC-B-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP81-JAR-SPME-5-PAC-B-241030	PCBs	PCB-004	4.99J pg	4.99UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-PAC-B-241030	PCBs	PCB-008	5.8J pg	5.8UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-PAC-B-241030	PCBs	PCB-011	15.6J pg	15.6UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-PAC-B-241030	PCBs	PCB-015	6.82J pg	6.82UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-PAC-B-241030	PCBs	PCB-020/028	7.53J pg	7.53UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-PAC-B-241030	PCBs	PCB-031	5.22J pg	5.22UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-PAC-B-241030	PCBs	PCB-044/047/065	38.9J pg	38.9UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-PAC-B-241030	PCBs	PCB-052	37.4 pg	37.4UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-PAC-B-241030	PCBs	PCB-054	4.27JEMPC pg	4.27UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP81-JAR-SPME-5-PAC-B-241030	PCBs	PCB-061/070/074/076	20.2JEMPC pg	20.2UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-PAC-B-241030	PCBs	PCB-064	5.12JEMPC pg	5.12UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-PAC-B-241030	PCBs	PCB-066	14.7J pg	14.7UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-PAC-B-241030	PCBs	PCB-077	8.72JEMPC pg	8.72UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-PAC-B-241030	PCBs	PCB-085/116	53.9 pg	53.9UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-PAC-B-241030	PCBs	PCB-104	3.24JEMPC pg	3.24UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-PAC-B-241030	PCBs	PCB-105	41.9EMPC pg	41.9UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-PAC-B-241030	PCBs	PCB-155	3.18JEMPC pg	3.18UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-5-PAC-B-241030	PCBs	PCB-188	21.7 pg	21.7UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-CTRL-A-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP81-JAR-SPME-CTRL-A-241030	PCBs	PCB-011	28.8 pg	28.8UJ pg	Method blank contamination
HOUS-VP81-JAR-SPME-CTRL-B-241030	PCBs	All PCBs	Various	J or UJ	Extraction Holding Time Exceeded
HOUS-VP81-JAR-SPME-CTRL-B-241030	PCBs	PCB-011	25.4 pg	25.4UJ pg	Method blank contamination

Notes:
%R: percent recovery
CL: control limit
EMPC: estimated maximum potential concentration
pg: picogram
pg/g: picogram per gram

References

Arcadis, 2023. *Field Sampling Plan/Quality Assurance Project Plan, Revision 1*. Prepared for General Electric Company, Pittsfield, Massachusetts. December 2023.

EPA (U.S. Environmental Protection Agency), 1986. *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. EPA-530/SW-846.

EPA, 1996. *Region I, EPA-New England Data Validation Functional Guidelines for Evaluating Environmental Analyses*. USEPA-New England, Region I, Quality Assurance Unit Staff, Office of Environmental Measurement and Evaluation. July 1996, Revised December 1996.

EPA, 2020. USEPA Contract Laboratory Program National Functional Guidelines for High Resolution Superfund Methods Data Review. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. EPA 542-R-20-007. November 2020.

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Data Validation Report – EPA Stage 2B

December 2, 2024

Project: Housatonic Vernal Pool Pilot Study

Project Number: 240469-10.01

Validation ID: AQ-2025-0060

This report summarizes the review of analytical results for 2 sediment samples collected from October 2023 through December 2023. The samples were collected by Anchor QEA and submitted to SGS Analytical (SGS) in Dayton, New Jersey. Samples were analyzed for the following parameters:

- Polychlorinated biphenyl Aroclors (PCBs) by U.S. Environmental Protection Agency (EPA) method 8082A
- Total Solids (TS) by Standard Method 2540G

Sample IDs, matrices, analyses, and SGS sample delivery group numbers (SDGs) reviewed in this report are presented in Table 1.

Table 1
Sample IDs, SDGs, Matrices, and Analyses

Sample ID	Lab Sample ID	SDG	Matrix	Analyses (Methods)
VP40-R-6-7-BST-02292024	JD84456-1	JD84456	Soil	PCBs, TS
VP9-X-Y-16-BST-02292024	JD84456-2	JD84456	Soil	PCBs, TS

Data Validation and Qualifications

The following comments refer to the laboratory's performance in meeting the quality assurance/ quality control (QA/QC) guidelines outlined in the analytical procedures. Laboratory results were reviewed using the following guidelines:

- Field Sampling Plan/Quality Assurance Project Plan, Revision1 (Arcadis 2023)
- EPA Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846, Third Edition; EPA1986)
- Region I, EPA-New England Data Validation Functional Guidelines for Evaluating Environmental Analyses (EPA 1996)
- EPA National Functional Guidelines for Organic Superfund Methods Data Review (EPA 2020a)

- EPA National Functional Guidelines for Inorganic Superfund Methods Data Review (EPA 2020b)

Unless noted in this report, laboratory results for the samples listed above were within QC criteria.

Field Documentation

Field documentation was checked for completeness and accuracy. The chain-of-custody forms were signed by SGS at the time of sample receipt. Samples were received in good condition and within the recommended temperature range.

Sample Preservation and Holding Times

Samples were appropriately preserved and analyzed within the holding times.

Initial and Continuing Calibration

An initial calibration was performed as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all analytes.

The percent differences (%D) of the initial calibration verification (ICV) standard were less than or equal to 20.0% for all analytes. Analytes were not evaluated when reported from a different column

Continuing calibration was performed at required frequencies.

The %D of the continuing calibration verification (CCV) standards were less than or equal to 20.0% for all analytes.

Laboratory Method Blanks

Laboratory method blanks were analyzed at the required frequencies and were free of target analytes.

Field Quality Control

Field Quality Control (QC) included rinsate blanks and field duplicates. Field QC samples were not collected in association this this sample set.

Surrogate Spike and Internal Standard Recoveries

Due to the inability to accurately quantify surrogates when a sample was analyzed at a dilution of 5x or greater, no data were qualified when surrogate recoveries were outside of control limits. When surrogate recoveries were outside of the control limits in one column, but results were reported from the other column; no data were qualified. Surrogates recovered outside of control limits in some

laboratory QC samples, however; data are not qualified for surrogate outliers in QC samples alone or when outlying surrogates are associated with the non-reporting column. Surrogates recovered within project-required control limits.

Column Confirmation Results

Secondary column confirmation results were within method requirements (40% RPD) for detected results.

Laboratory Control Samples and Laboratory Control Sample Duplicates

Laboratory control samples (LCS) and laboratory control sample duplicates (LCSD) were analyzed at the required frequency. LCS and LCSD recoveries and RPD values were within project-required control limits.

Matrix Spike and Matrix Spike Duplicate Samples

Matrix spike (MS) and matrix spike duplicate (MSD) samples were analyzed at the required frequencies. MS/MSD results reported for non-project samples were not evaluated. No data were qualified when native sample concentrations were greater than four times spike concentrations. No data were qualified when the recoveries and/or the RPD values were above the control limits and sample concentrations were not detected. Recoveries and/or RPD values were within project-required control limits.

Laboratory Duplicates

Laboratory duplicates were analyzed at the required frequency for total solids analysis and RPD values were within project-required control limits.

Method Reporting Limits

MRLs were acceptable as reported. All values were reported using the laboratory reporting limits. Values were reported as undiluted or when diluted, the reporting limit reflects the dilution factor.

Overall Assessment

As was determined by this evaluation, the laboratory followed the specified analytical methods and all requested sample analyses were completed. Accuracy was acceptable as demonstrated by the surrogate, LCS/LCSD, and MS/MSD recovery values. Precision was acceptable as demonstrated by the LCS/LCSD, MS/MSD, and laboratory RPD or difference values. All data are acceptable as reported. Completeness was 100%; completeness goals were met.

References

Arcadis, 2023. *Field Sampling Plan/Quality Assurance Project Plan, Revision 1*. Prepared for General Electric Company, Pittsfield, Massachusetts. December 2023.

EPA (U.S. Environmental Protection Agency),1986. *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. EPA-530/SW-846.

EPA, 1996. *Region I, EPA-New England Data Validation Functional Guidelines for Evaluating Environmental Analyses*. USEPA-New England, Region I, Quality Assurance Unit Staff, Office of Environmental Measurement and Evaluation. July 1996, Revised December 1996.

EPA, 2020a. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. EPA-540-R-20-006. November 2020.

EPA, 2020b. USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. EPA 540-R-20-005. November 2020.

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Data Validation Report – EPA Stage 2B

April 28, 2025

Project: Housatonic Vernal Pool Pilot Study

Project Number: 240469-10.01

Validation ID: AQ-2025-0062

This report summarizes the review of analytical results for 15 solid-phase microextraction (SPME) fiber samples collected in August 2024. The samples were collected by Anchor QEA and submitted to SGS Analytical (SGS) in Wilmington, North Carolina. Samples were analyzed for the following parameters:

- Polychlorinated biphenyls congeners (PCBs) by U.S. Environmental Protection Agency (EPA) method 1668C

Sample IDs, matrices, analyses, and SGS sample delivery group numbers (SDGs) reviewed in this report are presented in Table 1.

Table 1
Sample IDs, SDGs, Matrices, and Analyses

Sample ID	Lab Sample ID	SDG	Matrix	Analyses (Methods)
HOUS-VP12-JAR-SPME-1-PAC-A	B9844_21455_PCB_003-D10	B9844	SPME	PCBs
HOUS-VP12-JAR-SPME-1-PAC-B	B9844_21455_PCB_004-D10	B9844	SPME	PCBs
HOUS-VP12-JAR-SPME-10-BIOC-A	B9844_21455_PCB_015-D10	B9844	SPME	PCBs
HOUS-VP12-JAR-SPME-2-GAC-A	B9844_21455_PCB_009-D10	B9844	SPME	PCBs
HOUS-VP12-JAR-SPME-2-GAC-B	B9844_21455_PCB_010-D10	B9844	SPME	PCBs
HOUS-VP12-JAR-SPME-2-PAC-A	B9844_21455_PCB_005-D10	B9844	SPME	PCBs
HOUS-VP12-JAR-SPME-2-PAC-B	B9844_21455_PCB_006-D10	B9844	SPME	PCBs
HOUS-VP12-JAR-SPME-5-BIOC-A	B9844_21455_PCB_013-D10	B9844	SPME	PCBs
HOUS-VP12-JAR-SPME-5-BIOC-B	B9844_21455_PCB_014-D10	B9844	SPME	PCBs
HOUS-VP12-JAR-SPME-5-GAC-A	B9844_21455_PCB_011-D10	B9844	SPME	PCBs
HOUS-VP12-JAR-SPME-5-GAC-B	B9844_21455_PCB_012-D10	B9844	SPME	PCBs
HOUS-VP12-JAR-SPME-5-PAC-A	B9844_21455_PCB_007-D10	B9844	SPME	PCBs
HOUS-VP12-JAR-SPME-5-PAC-B	B9844_21455_PCB_008-D10	B9844	SPME	PCBs
HOUS-VP12-JAR-SPME-CTRL-A	B9844_21455_PCB_001-D10	B9844	SPME	PCBs
HOUS-VP12-JAR-SPME-CTRL-B	B9844_21455_PCB_002-D10	B9844	SPME	PCBs

Data Validation and Qualifications

The following comments refer to the laboratory's performance in meeting the quality assurance/ quality control (QA/QC) guidelines outlined in the analytical procedures. Laboratory results were reviewed using the following guidelines:

- Field Sampling Plan/Quality Assurance Project Plan, Revision1 (Arcadis 2023)
- EPA Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846, Third Edition; EPA1986)
- Region I, EPA-New England Data Validation Functional Guidelines for Evaluating Environmental Analyses (EPA 1996)
- EPA National Functional Guidelines for High Resolution Superfund Methods Data Review (EPA 2020)

Unless noted in this report, laboratory results for the samples listed above were within QC criteria.

Field Documentation

Field documentation was checked for completeness and accuracy. The chain-of-custody forms were signed by SGS at the time of sample receipt. Samples were received in good condition and within the recommended temperature range.

Sample Preservation and Holding Times

Samples were appropriately preserved and analyzed within the holding times with the following exceptions. All extracts for samples in SDG B9844 were analyzed outside of the 45-day holding time. All sample results for SDG B9844 were qualified "J" or "UJ" to indicate they are estimated.

Initial and Continuing Calibration

An initial calibration was performed as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all analytes.

The percent differences (%D) of the initial calibration verification (ICV) standard were less than or equal to 35% for native analytes and less than or equal to 45% for labeled compounds and cleanup standards.

Continuing calibration was performed at required frequencies.

The %D of the continuing calibration verification (CCV) standards were less than or equal to 25% for native analytes and less than or equal to 45% for labeled compounds and less than or equal to 35% for cleanup standards.

Laboratory Method Blanks

Laboratory method blanks were analyzed at the required frequencies. PCBs were detected in every method blank. In instances where the sample concentration was not significantly greater than (5x greater than) the concentration of the method blank, the sample result was qualified "U".

Field Quality Control

Field QC samples were not collected for this sample set.

Surrogates and Labeled Compounds Recoveries

Due to the inability to accurately quantify surrogates and labeled compounds when a sample was analyzed at a dilution of 5x or greater, no data were qualified when surrogate recoveries were outside of control limits. When surrogate recoveries were outside of the control limits in one column, but results were reported from the other column; no data were qualified. Surrogates recovered outside of control limits in some laboratory QC samples, however; data are not qualified for surrogate outliers in QC samples alone or when outlying surrogates are associated with the non-reporting column. Surrogates and labeled compounds recovered within project-required control limits.

Laboratory Control Samples and Laboratory Control Sample Duplicates

Laboratory control samples (LCS) and laboratory control sample duplicates (LCSD) were analyzed at the required frequency. LCS and LCSD recoveries and RPD values were within project-required control limits.

Matrix Spike and Matrix Spike Duplicate Samples

Matrix spike (MS) and matrix spike duplicate (MSD) samples were analyzed at the required frequencies. No data were qualified when native sample concentrations were greater than four times spike concentrations. No data were qualified when the recoveries and/or the RPD values were above the control limits and sample concentrations were not detected. Recoveries and/or RPD values were within project-required control limits.

Laboratory Duplicates

Laboratory duplicates not required to be analyzed for these sample sets.

Method Reporting Limits

MRLs were acceptable as reported. All values were reported using the laboratory reporting limits. Values were reported as undiluted or when diluted, the reporting limit reflects the dilution factor.

Sample Analyses

Several results were noted by the laboratory to have exceeded the calibration. These results were qualified "J" as estimated.

Estimated Maximum Possible Concentration

Some PCB congener results were flagged as estimated maximum possible concentration (EMPC) due to results that do not meet all method qualitative criteria for positive identification. Results have been qualified "J" to indicate they are estimated.

Overall Assessment

As was determined by this evaluation, the laboratory followed the specified analytical methods and all requested sample analyses were completed. Accuracy was acceptable as demonstrated by the surrogate, labeled compound, LCS/LCSD, and MS/MSD recovery values. Precision was acceptable as demonstrated by the LCS/LCSD and MS/MSD values. All data are acceptable as reported or qualified. Completeness was 100%; completeness goals were met. Table 2 summarizes the qualifiers applied to the sample results reviewed in this report.

Data Qualifier Definitions

U Indicates the compound or analyte was analyzed for but not detected at or above the specified limit.

J Indicates an estimated value.

UJ Indicates the compound or analyte was analyzed for but not detected and the specified limit reported is estimated.

Table 2
Data Qualification Summary

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
Various	PCBs	Various	Various	Various	Calibration Exceeded
Various	PCBs	Various	Various	Various	EMPC
HOUS-VP12-JAR-SPME-10-BIOC-A	PCBs	All PCBs	Various	Various	Extraction Holding Time Exceedance
HOUS-VP12-JAR-SPME-1-PAC-A	PCBs	All PCBs	Various	Various	Extraction Holding Time Exceedance
HOUS-VP12-JAR-SPME-1-PAC-B	PCBs	All PCBs	Various	Various	Extraction Holding Time Exceedance
HOUS-VP12-JAR-SPME-2-GAC-A	PCBs	All PCBs	Various	Various	Extraction Holding Time Exceedance

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-VP12-JAR-SPME-2-GAC-B	PCBs	All PCBs	Various	Various	Extraction Holding Time Exceedance
HOUS-VP12-JAR-SPME-2-PAC-A	PCBs	All PCBs	Various	Various	Extraction Holding Time Exceedance
HOUS-VP12-JAR-SPME-2-PAC-B	PCBs	All PCBs	Various	Various	Extraction Holding Time Exceedance
HOUS-VP12-JAR-SPME-5-BIOC-A	PCBs	All PCBs	Various	Various	Extraction Holding Time Exceedance
HOUS-VP12-JAR-SPME-5-BIOC-B	PCBs	All PCBs	Various	Various	Extraction Holding Time Exceedance
HOUS-VP12-JAR-SPME-5-GAC-A	PCBs	All PCBs	Various	Various	Extraction Holding Time Exceedance
HOUS-VP12-JAR-SPME-5-GAC-B	PCBs	All PCBs	Various	Various	Extraction Holding Time Exceedance
HOUS-VP12-JAR-SPME-5-PAC-A	PCBs	All PCBs	Various	Various	Extraction Holding Time Exceedance
HOUS-VP12-JAR-SPME-5-PAC-B	PCBs	All PCBs	Various	Various	Extraction Holding Time Exceedance
HOUS-VP12-JAR-SPME-CTRL-A	PCBs	All PCBs	Various	Various	Extraction Holding Time Exceedance
HOUS-VP12-JAR-SPME-CTRL-B	PCBs	All PCBs	Various	Various	Extraction Holding Time Exceedance

Notes:
EMPC: Estimated Maximum Potential Concentration

References

Arcadis, 2023. *Field Sampling Plan/Quality Assurance Project Plan, Revision 1*. Prepared for General Electric Company, Pittsfield, Massachusetts. December 2023.

EPA (U.S. Environmental Protection Agency), 1986. *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. EPA-530/SW-846.

EPA, 1996. *Region I, EPA-New England Data Validation Functional Guidelines for Evaluating Environmental Analyses*. USEPA-New England, Region I, Quality Assurance Unit Staff, Office of Environmental Measurement and Evaluation. July 1996, Revised December 1996.

EPA, 2020. USEPA Contract Laboratory Program National Functional Guidelines for High Resolution Superfund Methods Data Review. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. EPA 542-R-20-007. November 2020.

Attachment D
Analytical Data Summary Tables

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP12-B-C-1/2-BST 4/16/2024 HOUS-COL-VP12-THIN-WET1-PW-SPME-240416	VP12-B-C-1/2-BST 4/16/2024 HOUS-COL-VP12-AMEND-WET1-PW-SPME-240416	VP12-B-C-1/2-BST 4/16/2024 HOUS-COL-VP12-MIXED-WET1-PW-SPME-240416
PCB Congeners (SPME) (ng/L)				
PCB-001	E1668C	0.00156 U	0.00269 U	0.00149 U
PCB-002	E1668C	0.000975 U	0.00115 U	0.000505 U
PCB-003	E1668C	0.00109 U	0.00128 U	0.000562 U
PCB-004	E1668C	**0.00454 J**	0.00447 U	0.00285 U
PCB-005	E1668C	0.00229 U	0.00276 U	0.00069 U
PCB-006	E1668C	0.0016 U	0.00188 U	0.000477 U
PCB-007	E1668C	0.00177 U	0.00209 U	0.000532 U
PCB-008	E1668C	**0.00154 J**	**0.00249 J**	0.000445 U
PCB-009	E1668C	0.00168 U	0.00197 U	0.000501 U
PCB-010	E1668C	0.00122 U	0.00336 U	0.00215 U
PCB-011	E1668C	**0.00286**	**0.00389**	**0.00213**
PCB-012/013	E1668C	0.00132 U	0.00151 U	0.000397 U
PCB-014	E1668C	0.00113 U	0.00128 U	0.000339 U
PCB-015	E1668C	0.00104 U	0.00117 U	0.000312 U
PCB-016	E1668C	0.000946 U	0.00153 U	0.00131 U
PCB-017	E1668C	**0.00245 J**	0.00121 U	0.00105 U
PCB-018/030	E1668C	**0.00168 J**	0.000876 U	0.000761 U
PCB-019	E1668C	0.00119 U	0.00199 U	0.00166 U
PCB-020/028	E1668C	**0.00299 J**	0.00201 U	0.000325 U
PCB-021/033	E1668C	0.00262 U	0.00259 U	0.000413 U
PCB-022	E1668C	0.00192 U	0.00187 U	0.000303 U
PCB-023	E1668C	0.00228 U	0.00222 U	0.00036 U
PCB-024	E1668C	0.000438 U	0.000686 U	0.000608 U
PCB-025	E1668C	**0.00368 J**	0.00141 U	0.000233 U
PCB-026/029	E1668C	0.00187 U	0.00179 U	0.000294 U
PCB-027	E1668C	0.000365 U	0.000563 U	0.000508 U
PCB-031	E1668C	**0.00261**	0.00147 U	0.000242 U
PCB-032	E1668C	**0.00129 J**	0.000513 U	0.000463 U
PCB-034	E1668C	0.0019 U	0.00182 U	0.000299 U
PCB-035	E1668C	0.00124 U	0.00117 U	0.000196 U
PCB-036	E1668C	0.00097 U	0.00090 U	0.000153 U
PCB-037	E1668C	0.00118 U	0.0011 U	0.000186 U
PCB-038	E1668C	0.00137 U	0.00129 U	0.000215 U
PCB-039	E1668C	0.00105 U	0.000969 U	0.000165 U
PCB-040/071	E1668C	**0.0395**	0.000842 U	**0.00022 J**
PCB-041	E1668C	0.000776 U	0.00151 U	0.000219 U
PCB-042	E1668C	**0.0289**	0.00109 U	**0.000158 J**
PCB-043	E1668C	0.00053 U	0.00102 U	0.000149 U
PCB-044/047/065	E1668C	**0.253**	0.000913 U	**0.00156 J**
PCB-045	E1668C	**0.0207**	0.00218 U	0.000308 U
PCB-046	E1668C	**0.00738 J**	0.00199 U	0.000281 U
PCB-048	E1668C	**0.00289**	0.000952 U	0.00014 U
PCB-049/069	E1668C	**0.292**	0.000539 U	**0.00166**
PCB-050/053	E1668C	**0.195**	0.00129 U	**0.000458 J**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP12-B-C-1/2-BST 4/16/2024 HOUS-COL-VP12-THIN-WET1-PW-SPME-240416	VP12-B-C-1/2-BST 4/16/2024 HOUS-COL-VP12-AMEND-WET1-PW-SPME-240416	VP12-B-C-1/2-BST 4/16/2024 HOUS-COL-VP12-MIXED-WET1-PW-SPME-240416
PCB-051	E1668C	**0.0362**	0.00118 U	0.000169 U
PCB-052	E1668C	**1.218**	**0.00133**	**0.00457**
PCB-054	E1668C	**0.0043**	0.000119 U	0.000111 U
PCB-055	E1668C	0.000633 U	0.000287 U	0.0000958 U
PCB-056	E1668C	**0.00133**	0.000295 U	0.0000984 U
PCB-057	E1668C	0.000614 U	0.000276 U	0.0000933 U
PCB-058	E1668C	**0.00117**	0.000245 U	0.0000824 U
PCB-059/062/075	E1668C	**0.0103**	0.000511 U	0.0000774 U
PCB-060	E1668C	0.000772 U	0.000351 U	0.000117 U
PCB-061/070/074/076	E1668C	**0.035**	0.000381 U	**0.000792 J**
PCB-063	E1668C	0.000658 U	0.000297 U	0.00010 U
PCB-064	E1668C	**0.0323**	0.000491 U	**0.000275 J**
PCB-066	E1668C	**0.0204**	0.000239 U	**0.000267 J**
PCB-067	E1668C	**0.00142**	0.000224 U	0.000076 U
PCB-068	E1668C	**0.000533**	0.000228 U	0.0000778 U
PCB-072	E1668C	**0.00192**	0.000215 U	0.0000737 U
PCB-073	E1668C	**0.00712**	0.00038 U	0.0000584 U
PCB-077	E1668C	0.000651 U	0.000262 U	0.0000737 U
PCB-078	E1668C	0.000411 U	0.000182 U	0.0000632 U
PCB-079	E1668C	**0.00253**	0.000133 U	0.0000471 U
PCB-080	E1668C	0.000295 U	0.000128 U	0.0000463 U
PCB-081	E1668C	0.000413 U	0.000183 U	0.0000638 U
PCB-082	E1668C	**0.0108**	0.00010 U	**0.000783**
PCB-083	E1668C	**0.0109**	0.00011 U	**0.000374**
PCB-084	E1668C	**0.157**	0.000171 U	**0.00354**
PCB-085/116	E1668C	**0.0164**	0.0000689 U	**0.00156**
PCB-086/087/097/109/119/125	E1668C	**0.11**	0.000080 U	**0.00726**
PCB-088	E1668C	0.00175 U	0.000144 U	0.000205 U
PCB-089	E1668C	**0.00194**	0.000132 U	0.00019 U
PCB-090/101/113	E1668C	**0.275**	**0.000175 J**	**0.018**
PCB-091	E1668C	**0.0998**	0.000121 U	**0.00344**
PCB-092	E1668C	**0.0791**	0.0000768 U	**0.00433**
PCB-093/100	E1668C	**0.0168**	0.000151 U	**0.000677**
PCB-094	E1668C	**0.00987**	0.000138 U	**0.000266 J**
PCB-095	E1668C	**1.026**	**0.000391 J**	**0.0237**
PCB-096	E1668C	**0.0225**	0.000123 U	**0.000266 J**
PCB-098	E1668C	0.00137 U	0.000112 U	0.000162 U
PCB-099	E1668C	**0.0614**	0.0000506 U	**0.00511**
PCB-102	E1668C	**0.0172**	0.0000996 U	**0.000459**
PCB-103	E1668C	**0.0201**	0.0000923 U	**0.000611 J**
PCB-104	E1668C	**0.0016 J**	0.0000841 U	0.000035 U
PCB-105	E1668C	**0.00195**	0.0000253 U	**0.00076**
PCB-106	E1668C	0.000328 U	0.0000253 U	0.0000417 U
PCB-107	E1668C	**0.000533**	0.0000203 U	**0.000196**
PCB-108/124	E1668C	0.000308 U	0.0000236 U	**0.000119 J**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP12-B-C-1/2-BST 4/16/2024 HOUS-COL-VP12-THIN-WET1-PW-SPME-240416	VP12-B-C-1/2-BST 4/16/2024 HOUS-COL-VP12-AMEND-WET1-PW-SPME-240416	VP12-B-C-1/2-BST 4/16/2024 HOUS-COL-VP12-MIXED-WET1-PW-SPME-240416
PCB-110	E1668C	**0.0963**	**0.0000621 J**	**0.00773**
PCB-111	E1668C	0.000275 U	0.000021 U	0.000037 U
PCB-112	E1668C	0.000461 U	0.0000361 U	0.0000559 U
PCB-114	E1668C	0.000323 U	0.000025 U	**0.0000593 J**
PCB-115	E1668C	0.000458 U	0.0000358 U	0.000056 U
PCB-117	E1668C	**0.00155**	0.0000448 U	**0.000166**
PCB-118	E1668C	**0.00404**	0.0000202 U	**0.00184**
PCB-120	E1668C	0.000212 U	0.0000162 U	**0.0000386 J**
PCB-121	E1668C	0.000334 U	0.0000257 U	0.0000425 U
PCB-122	E1668C	0.000404 U	0.0000314 U	0.0000562 U
PCB-123	E1668C	0.000274 U	0.000021 U	**0.0000322 J**
PCB-126	E1668C	0.00015 U	0.000073 U	0.0000152 U
PCB-127	E1668C	0.000175 U	0.0000124 U	0.0000276 U
PCB-128/166	E1668C	**0.00819**	0.0000169 U	**0.0038**
PCB-129/138/163	E1668C	**0.0999**	**0.0000952 J**	**0.0402**
PCB-130	E1668C	**0.00551**	0.0000229 U	**0.00194**
PCB-131	E1668C	**0.00303**	0.0000345 U	**0.000494**
PCB-132	E1668C	**0.131**	**0.0000602 J**	**0.0196**
PCB-133	E1668C	**0.0023**	0.0000164 U	**0.000682**
PCB-134	E1668C	**0.0322**	0.0000426 U	**0.00424**
PCB-135/151	E1668C	**0.236**	**0.0000735 J**	**0.0315**
PCB-136	E1668C	**0.188**	**0.0000377 J**	**0.0122**
PCB-137	E1668C	**0.00155**	0.0000187 U	**0.000729**
PCB-139/140	E1668C	**0.00373**	0.0000251 U	**0.000632**
PCB-141	E1668C	**0.0273**	0.0000189 U	**0.00972**
PCB-142	E1668C	0.0000137 U	0.0000401 U	0.0000265 U
PCB-143	E1668C	0.0000105 U	0.0000305 U	0.0000208 U
PCB-144	E1668C	**0.0202**	0.0000254 U	**0.00326**
PCB-145	E1668C	**0.000631**	0.0000506 U	0.0000303 U
PCB-146	E1668C	**0.0155**	0.0000133 U	**0.00562**
PCB-147/149	E1668C	**0.431**	**0.000115 J**	**0.0582**
PCB-148	E1668C	**0.0011**	0.0000224 U	**0.000176**
PCB-150	E1668C	**0.00561**	0.0000467 U	**0.000414**
PCB-152	E1668C	**0.00332**	0.0000509 U	**0.000154 J**
PCB-153/168	E1668C	**0.0783**	0.0000377 UJ	**0.0312**
PCB-154	E1668C	**0.00581**	0.0000197 U	**0.00101**
PCB-155	E1668C	**0.0000413 J**	0.000011 U	0.00000881 U
PCB-156/157	E1668C	**0.000328**	**0.00000699 J**	**0.000961**
PCB-158	E1668C	**0.00395**	0.00000882 U	**0.00251**
PCB-159	E1668C	**0.0014**	0.0000063 U	**0.000948**
PCB-160	E1668C	0.00000415 U	0.0000117 U	0.0000101 U
PCB-161	E1668C	0.00000267 U	0.00000742 U	0.00000797 U
PCB-162	E1668C	**0.000027 J**	0.00000738 U	**0.0000465 J**
PCB-164	E1668C	**0.00477**	0.0000087 U	**0.00229**
PCB-165	E1668C	0.00000335 U	0.00000937 U	**0.000387**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP12-B-C-1/2-BST 4/16/2024 HOUS-COL-VP12-THIN-WET1-PW-SPME-240416	VP12-B-C-1/2-BST 4/16/2024 HOUS-COL-VP12-AMEND-WET1-PW-SPME-240416	VP12-B-C-1/2-BST 4/16/2024 HOUS-COL-VP12-MIXED-WET1-PW-SPME-240416
PCB-167	E1668C	**0.000175**	0.00000688 U	**0.000558**
PCB-169	E1668C	0.00011 U	0.000073 U	**0.0000844**
PCB-170	E1668C	**0.0076**	0.0000121 U	**0.0195**
PCB-171/173	E1668C	**0.00946**	0.0000161 U	**0.0075**
PCB-172	E1668C	**0.00169**	0.00000926 U	**0.00389**
PCB-174	E1668C	**0.0476**	**0.0000123 J**	**0.0275**
PCB-175	E1668C	**0.00152**	0.0000132 U	**0.00107**
PCB-176	E1668C	**0.0314**	0.0000121 U	**0.00708**
PCB-177	E1668C	**0.0231**	0.0000152 U	**0.015**
PCB-178	E1668C	**0.0115**	0.00000686 U	**0.00736**
PCB-179	E1668C	**0.124**	**0.0000414 J**	**0.0239**
PCB-180/193	E1668C	**0.0162**	0.0000202 U	**0.0451**
PCB-181	E1668C	**0.000125 J**	0.0000133 U	0.0000441 U
PCB-182	E1668C	**0.000194**	0.0000104 U	**0.000135**
PCB-183	E1668C	**0.0162**	0.0000115 U	**0.0138**
PCB-184	E1668C	0.00000469 U	0.00000934 U	0.0000071 U
PCB-185	E1668C	**0.00385**	0.0000152 U	**0.00342**
PCB-186	E1668C	0.00000577 U	0.0000117 U	0.00000791 U
PCB-187	E1668C	**0.042**	0.0000108 U	**0.0287**
PCB-188	E1668C	**0.000226**	0.00000929 U	0.00000688 U
PCB-189	E1668C	**0.0000211**	0.00000172 U	**0.000688**
PCB-190	E1668C	**0.000844**	0.00000567 U	**0.00487**
PCB-191	E1668C	**0.000177**	0.00000465 U	**0.00115**
PCB-192	E1668C	0.00000843 U	0.0000043 U	0.0000423 U
PCB-194	E1668C	**0.000765**	0.00000107 U	**0.0214**
PCB-195	E1668C	**0.00131**	0.00000194 U	**0.00824**
PCB-196	E1668C	**0.002**	0.00000208 U	**0.0142**
PCB-197	E1668C	**0.000848**	0.00000312 U	**0.000926**
PCB-198/199	E1668C	**0.00469**	0.00000196 U	**0.0269**
PCB-200	E1668C	**0.00373**	0.00000351 U	**0.00387**
PCB-201	E1668C	**0.0016**	0.00000172 U	**0.00457**
PCB-202	E1668C	**0.00408**	0.00000256 U	**0.0043**
PCB-203	E1668C	**0.00186**	0.00000165 U	**0.0159**
PCB-204	E1668C	0.00000358 U	0.00000301 U	0.0000059 U
PCB-205	E1668C	**0.0000234**	0.000000615 U	**0.00173**
PCB-206	E1668C	**0.000168**	0.00000242 U	**0.0129**
PCB-207	E1668C	**0.000145**	0.00000275 U	**0.00125**
PCB-208	E1668C	**0.000224**	0.00000263 U	**0.00163**
PCB-209	E1668C	**0.0000238**	0.000000773 U	**0.000568**
Total PCB Congener (U = 0 max limit)	Calculated	**5.9 J**	**0.00878 J**	**0.66 J**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP12-B-C-1/2-BST 4/16/2024 HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	VP12-B-C-1/2-BST 6/17/2024 HOUS-COL-VP12-THIN-DRY1-PW-SPME-240617	VP12-B-C-1/2-BST 6/17/2024 HOUS-COL-VP12-AMEND-DRY1-PW-SPME-240617
PCB Congeners (SPME) (ng/L)				
PCB-001	E1668C	**0.0394**	0.00143 U	0.00144 U
PCB-002	E1668C	0.000804 U	0.000553 U	0.000397 U
PCB-003	E1668C	**0.00152 J**	0.000645 U	0.000464 U
PCB-004	E1668C	**0.185**	**0.00972**	0.00112 U
PCB-005	E1668C	0.00142 U	0.00119 U	0.000507 U
PCB-006	E1668C	**0.00718 J**	**0.000425 J**	0.000347 U
PCB-007	E1668C	0.00116 U	0.000937 U	0.000398 U
PCB-008	E1668C	**0.029**	**0.00198 J**	0.000323 U
PCB-009	E1668C	**0.00153 J**	0.000883 U	0.000374 U
PCB-010	E1668C	**0.00509 J**	0.00090 U	0.000687 U
PCB-011	E1668C	**0.00339 J**	**0.00121 J**	**0.00094 J**
PCB-012/013	E1668C	**0.00396 J**	0.000682 U	0.000288 U
PCB-014	E1668C	0.000816 U	0.000603 U	0.000254 U
PCB-015	E1668C	**0.0365**	**0.000673 J**	0.000228 U
PCB-016	E1668C	**0.0195**	**0.00176 J**	0.000642 U
PCB-017	E1668C	**0.192**	**0.0312**	0.000513 U
PCB-018/030	E1668C	**0.0901**	**0.0142**	0.000365 U
PCB-019	E1668C	**0.0247**	**0.0141**	0.000934 U
PCB-020/028	E1668C	**0.137**	**0.0214**	0.000187 U
PCB-021/033	E1668C	**0.0543**	**0.0313**	0.000237 U
PCB-022	E1668C	**0.0126**	**0.00173**	0.000176 U
PCB-023	E1668C	0.00101 U	0.00063 U	0.000203 U
PCB-024	E1668C	**0.00159 J**	0.000256 U	0.000295 U
PCB-025	E1668C	**0.0408**	**0.0236**	0.000135 U
PCB-026/029	E1668C	**0.0897**	**0.0144**	0.000167 U
PCB-027	E1668C	**0.0328**	**0.00361**	0.000255 U
PCB-031	E1668C	**0.108**	**0.0173**	0.000143 U
PCB-032	E1668C	**0.124**	**0.0392**	0.00023 U
PCB-034	E1668C	**0.00451**	**0.00114**	0.000173 U
PCB-035	E1668C	**0.00115 J**	0.000372 U	0.000118 U
PCB-036	E1668C	0.00056 U	0.000284 U	0.0000906 U
PCB-037	E1668C	**0.0264**	**0.00237**	0.00012 U
PCB-038	E1668C	**0.00372**	**0.00163**	0.000128 U
PCB-039	E1668C	0.000607 U	**0.00116**	0.0000974 U
PCB-040/071	E1668C	**0.697**	**0.293**	0.000101 U
PCB-041	E1668C	0.000269 U	0.000364 U	0.000182 U
PCB-042	E1668C	**0.512**	**0.201**	0.000131 U
PCB-043	E1668C	0.000189 U	**0.0246**	0.000122 U
PCB-044/047/065	E1668C	**4.492**	**2.131**	**0.000325 J**
PCB-045	E1668C	**0.168**	**0.079**	0.000266 U
PCB-046	E1668C	**0.0618**	**0.0445**	0.000232 U
PCB-048	E1668C	**0.042**	**0.0216**	0.000116 U
PCB-049/069	E1668C	**5.852**	**2.252**	**0.00017 J**
PCB-050/053	E1668C	**1.262**	**0.973**	0.000151 U

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP12-B-C-1/2-BST 4/16/2024 HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	VP12-B-C-1/2-BST 6/17/2024 HOUS-COL-VP12-THIN-DRY1-PW-SPME-240617	VP12-B-C-1/2-BST 6/17/2024 HOUS-COL-VP12-AMEND-DRY1-PW-SPME-240617
PCB-051	E1668C	**0.289**	**0.593**	0.000133 U
PCB-052	E1668C	**16.366 J**	**7.514 J**	**0.000461 J**
PCB-054	E1668C	**0.0677**	**0.0806**	0.000162 U
PCB-055	E1668C	0.00586 U	0.00226 U	0.0000526 U
PCB-056	E1668C	**0.141**	**0.0149**	0.0000567 U
PCB-057	E1668C	0.00588 U	0.00222 U	0.0000515 U
PCB-058	E1668C	0.00517 U	0.00195 U	0.0000451 U
PCB-059/062/075	E1668C	**0.227**	**0.0903**	0.0000625 U
PCB-060	E1668C	**0.0292**	0.00277 U	0.0000643 U
PCB-061/070/074/076	E1668C	**2.259**	**0.326**	**0.0000875 J**
PCB-063	E1668C	**0.0259**	**0.00332**	0.000055 U
PCB-064	E1668C	**0.787**	**0.255**	0.0000625 U
PCB-066	E1668C	**1.06**	**0.0893**	0.0000444 U
PCB-067	E1668C	**0.0186**	**0.00477**	0.0000425 U
PCB-068	E1668C	**0.0726**	**0.00854**	0.0000408 U
PCB-072	E1668C	**0.134**	**0.0207**	0.0000397 U
PCB-073	E1668C	**0.0992**	**0.0484**	0.000047 U
PCB-077	E1668C	**0.0292**	0.00285 U	0.0000645 U
PCB-078	E1668C	0.00481 U	0.00153 U	0.0000352 U
PCB-079	E1668C	**0.0613**	**0.0195**	0.0000268 U
PCB-080	E1668C	0.00388 U	0.00111 U	0.0000252 U
PCB-081	E1668C	0.00479 U	0.0016 U	0.0000366 U
PCB-082	E1668C	**0.893**	**0.0878**	0.0000928 U
PCB-083	E1668C	0.131 U	**0.0827**	0.0000984 U
PCB-084	E1668C	**4.939 J**	**0.79**	0.000152 U
PCB-085/116	E1668C	**1.954**	**0.165**	0.0000617 U
PCB-086/087/097/109/119/125	E1668C	**10.272**	**0.998**	**0.000187 J**
PCB-088	E1668C	0.138 U	0.0139 U	0.000126 U
PCB-089	E1668C	0.126 U	0.013 U	0.000117 U
PCB-090/101/113	E1668C	**24.938 J**	**2.549 J**	**0.000287 J**
PCB-091	E1668C	**4.317 J**	**0.627**	0.000108 U
PCB-092	E1668C	**6.246 J**	**0.638**	0.0000689 U
PCB-093/100	E1668C	**0.617**	**0.12**	0.00013 U
PCB-094	E1668C	**0.268**	**0.043**	0.000122 U
PCB-095	E1668C	**31.996 J**	**5.264 J**	**0.000616 J**
PCB-096	E1668C	**0.313**	**0.0826**	0.000184 U
PCB-098	E1668C	0.113 U	**0.00827**	0.0000967 U
PCB-099	E1668C	**6.964 J**	**0.646**	**0.000105 J**
PCB-102	E1668C	**0.505**	**0.081**	0.0000876 U
PCB-103	E1668C	**0.773**	**0.121**	0.0000841 U
PCB-104	E1668C	**0.0309**	**0.0151**	0.000163 U
PCB-105	E1668C	**1.048**	**0.0256**	0.0000325 U
PCB-106	E1668C	0.047 U	0.00292 U	0.0000253 U
PCB-107	E1668C	**0.302**	**0.00796**	0.000021 U
PCB-108/124	E1668C	**0.221**	**0.0056**	0.0000237 U

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP12-B-C-1/2-BST 4/16/2024 HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	VP12-B-C-1/2-BST 6/17/2024 HOUS-COL-VP12-THIN-DRY1-PW-SPME-240617	VP12-B-C-1/2-BST 6/17/2024 HOUS-COL-VP12-AMEND-DRY1-PW-SPME-240617
PCB-110	E1668C	**14.305 J**	**1.012 J**	**0.000181**
PCB-111	E1668C	0.0448 U	0.00248 U	0.0000214 U
PCB-112	E1668C	0.0529 U	0.00379 U	0.0000334 U
PCB-114	E1668C	0.0442 U	0.00327 U	0.0000285 U
PCB-115	E1668C	0.0542 U	0.00375 U	0.000033 U
PCB-117	E1668C	**0.277**	**0.0225**	0.0000455 U
PCB-118	E1668C	**3.848 J**	**0.0837**	0.0000247 U
PCB-120	E1668C	0.0361 U	0.0019 U	0.0000163 U
PCB-121	E1668C	0.0461 U	0.00279 U	0.0000243 U
PCB-122	E1668C	0.0552 U	0.00363 U	0.0000317 U
PCB-123	E1668C	**0.0762**	0.00285 U	0.0000246 U
PCB-126	E1668C	**0.00581**	0.000196 U	0.0000321 U
PCB-127	E1668C	0.0339 U	0.00156 U	0.0000153 U
PCB-128/166	E1668C	**1.387**	**0.0739**	0.0000215 U
PCB-129/138/163	E1668C	**18.683 J**	**1.142 J**	**0.000261**
PCB-130	E1668C	**0.919**	**0.051**	0.0000455 U
PCB-131	E1668C	**0.224**	**0.0206**	0.0000649 U
PCB-132	E1668C	**8.265 J**	**0.852 J**	**0.000123 J**
PCB-133	E1668C	**0.299**	**0.0191**	0.0000324 U
PCB-134	E1668C	**1.809**	**0.172**	0.0000736 U
PCB-135/151	E1668C	**15.018 J**	**1.511 J**	**0.00016 J**
PCB-136	E1668C	**5.696 J**	**0.834 J**	**0.0000735 J**
PCB-137	E1668C	**0.361**	**0.0154**	0.0000376 U
PCB-139/140	E1668C	**0.267**	**0.0237**	0.0000462 U
PCB-141	E1668C	**4.808 J**	**0.276**	**0.0000772**
PCB-142	E1668C	0.000106 U	0.000018 U	0.0000763 U
PCB-143	E1668C	0.0000876 U	0.0000145 U	0.0000612 U
PCB-144	E1668C	**1.632**	**0.141**	0.0000489 U
PCB-145	E1668C	0.0000911 U	**0.00267**	0.0000912 U
PCB-146	E1668C	**2.782 J**	**0.152**	0.0000255 U
PCB-147/149	E1668C	**24.223 J**	**2.607 J**	**0.000372**
PCB-148	E1668C	**0.0739**	**0.00627**	0.0000428 U
PCB-150	E1668C	**0.127**	**0.0238**	0.0000853 U
PCB-152	E1668C	**0.0604**	**0.0125**	0.0000907 U
PCB-153/168	E1668C	**15.342 J**	**0.905 J**	**0.000184**
PCB-154	E1668C	**0.403**	**0.0386**	0.0000379 U
PCB-155	E1668C	**0.00268**	**0.000322**	0.0000248 U
PCB-156/157	E1668C	**0.446**	**0.00597**	0.0000176 U
PCB-158	E1668C	**1.22 J**	**0.0438**	0.0000179 U
PCB-159	E1668C	**0.154**	**0.00785**	0.00000862 U
PCB-160	E1668C	0.0000525 U	0.00000574 U	0.0000235 U
PCB-161	E1668C	0.0000394 U	0.00000376 U	0.0000152 U
PCB-162	E1668C	**0.0212**	**0.000374**	0.0000101 U
PCB-164	E1668C	**1.08**	**0.0433**	0.0000171 U
PCB-165	E1668C	**0.02**	0.00000464 U	0.0000188 U

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP12-B-C-1/2-BST 4/16/2024 HOUS-COL-VP12-CTRL-WET1-PW-SPME-240416	VP12-B-C-1/2-BST 6/17/2024 HOUS-COL-VP12-THIN-DRY1-PW-SPME-240617	VP12-B-C-1/2-BST 6/17/2024 HOUS-COL-VP12-AMEND-DRY1-PW-SPME-240617
PCB-167	E1668C	**0.228**	**0.00326**	0.0000102 U
PCB-169	E1668C	0.000767 U	**-- R**	**-- R**
PCB-170	E1668C	**2.239 J**	**0.0801**	**0.0000234 J**
PCB-171/173	E1668C	**1.062**	**0.0658**	0.0000149 U
PCB-172	E1668C	**0.442**	**0.0161**	0.00000927 U
PCB-174	E1668C	**4.248 J**	**0.293 J**	**0.0000452**
PCB-175	E1668C	**0.166**	**0.0102**	0.0000127 U
PCB-176	E1668C	**0.991**	**0.141**	0.0000246 U
PCB-177	E1668C	**2.314 J**	**0.16**	**0.0000259 J**
PCB-178	E1668C	**1.068 J**	**0.0757**	0.0000141 U
PCB-179	E1668C	**3.598 J**	**0.573 J**	**0.0000531 J**
PCB-180/193	E1668C	**5.153 J**	**0.181**	**0.0000389 J**
PCB-181	E1668C	**0.0184**	**0.00106**	0.000013 U
PCB-182	E1668C	**0.0226**	**0.00154**	0.00000997 U
PCB-183	E1668C	**2.013 J**	**0.121**	0.0000206 UJ
PCB-184	E1668C	**0.00303**	**0.000332**	0.0000186 U
PCB-185	E1668C	**0.619**	**0.0318**	0.0000154 U
PCB-186	E1668C	0.0000587 U	0.0000112 U	0.0000234 U
PCB-187	E1668C	**4.492 J**	**0.301 J**	**0.0000363 J**
PCB-188	E1668C	**0.00888**	**0.00117**	0.0000222 U
PCB-189	E1668C	**0.0406**	**0.000356**	0.00000308 U
PCB-190	E1668C	**0.421**	**0.0102**	0.00000575 U
PCB-191	E1668C	**0.0793**	**0.00222**	0.00000461 U
PCB-192	E1668C	0.000588 U	0.0000194 U	0.00000436 U
PCB-194	E1668C	**0.403**	**0.00824**	0.00000232 U
PCB-195	E1668C	**0.273**	**0.0102**	0.00000422 U
PCB-196	E1668C	**0.316**	**0.0135**	0.00000359 U
PCB-197	E1668C	**0.0437**	**0.00335**	0.00000541 U
PCB-198/199	E1668C	**0.702**	**0.0307**	**0.00000678 J**
PCB-200	E1668C	**0.176**	**0.0161**	0.00000656 U
PCB-201	E1668C	**0.114**	**0.00721**	0.00000314 U
PCB-202	E1668C	**0.196**	**0.0198**	0.00000539 U
PCB-203	E1668C	**0.381**	**0.0146**	0.00000289 U
PCB-204	E1668C	**0.000229**	**0.0000185 J**	0.00000525 U
PCB-205	E1668C	**0.0212**	**0.000296**	0.00000149 U
PCB-206	E1668C	**0.0562**	**0.00134**	0.0000019 U
PCB-207	E1668C	**0.0134**	**0.000453**	0.0000020 U
PCB-208	E1668C	**0.018**	**0.00105**	0.00000229 U
PCB-209	E1668C	**0.00229**	**0.000105**	0.00000129 U
Total PCB Congener (U = 0 max limit)	Calculated	**290 J**	**40 J**	**0.0048 J**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP12-B-C-1/2-BST 6/17/2024 HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	VP12-B-C-1/2-BST 6/17/2024 HOUS-COL-VP12-CTRL-DRY1-PW-SPME-240617	VP81-G-10/11-BST 3/26/2024 HOUS-COL-VP81-THIN-BL-PW-SPME-240326
PCB Congeners (SPME) (ng/L)				
PCB-001	E1668C	0.00695 U	**0.00575 J**	**0.0145 J**
PCB-002	E1668C	0.00239 U	**0.00143 J**	0.00126 U
PCB-003	E1668C	0.00236 U	**0.00197 J**	0.00131 U
PCB-004	E1668C	**0.0423**	**0.00374 J**	**0.0543 J**
PCB-005	E1668C	0.00197 U	**0.000575 J**	0.00231 U
PCB-006	E1668C	**0.00281**	**0.000692 J**	**0.00436**
PCB-007	E1668C	0.00155 U	**0.000675 J**	0.00182 U
PCB-008	E1668C	**0.006**	**0.00105 J**	**0.0124 J**
PCB-009	E1668C	0.00143 U	**0.000722 J**	0.00172 U
PCB-010	E1668C	0.00446 U	**0.0019 J**	0.0040 U
PCB-011	E1668C	**0.0025**	**0.0013 J**	**0.00448**
PCB-012/013	E1668C	0.00122 U	**0.000988 J**	**0.00165 J**
PCB-014	E1668C	0.00105 U	**0.000419 J**	0.00128 U
PCB-015	E1668C	**0.00633 J**	**0.000713 J**	**0.0204**
PCB-016	E1668C	**0.00794**	**0.00116 J**	**0.00714**
PCB-017	E1668C	**0.112**	**0.00278 J**	**0.0429**
PCB-018/030	E1668C	**0.0517**	**0.00208 J**	**0.0232**
PCB-019	E1668C	**0.0141**	**0.00159 J**	**0.0171**
PCB-020/028	E1668C	**0.0849**	**0.00187 J**	**0.0326**
PCB-021/033	E1668C	**0.0327**	**0.00101 J**	**0.0166**
PCB-022	E1668C	**0.00595**	**0.000293 J**	**0.00552**
PCB-023	E1668C	0.00237 U	0.000309 U	0.00127 U
PCB-024	E1668C	0.00111 U	**0.000523 J**	0.00152 U
PCB-025	E1668C	**0.0295**	**0.000816 J**	**0.0194**
PCB-026/029	E1668C	**0.0515**	**0.00137 J**	**0.0146**
PCB-027	E1668C	**0.0192**	**0.000612 J**	**0.00901**
PCB-031	E1668C	**0.0677**	**0.00156**	**0.0287**
PCB-032	E1668C	**0.0719**	**0.00137**	**0.0245**
PCB-034	E1668C	**0.00283**	0.000263 U	0.00111 U
PCB-035	E1668C	0.00175 U	0.000181 U	0.000765 U
PCB-036	E1668C	0.00129 U	0.000138 U	0.000633 U
PCB-037	E1668C	**0.0129**	**0.000301 J**	**0.00978**
PCB-038	E1668C	**0.00365**	0.000195 U	**0.00171**
PCB-039	E1668C	0.0014 U	0.000149 U	0.000688 U
PCB-040/071	E1668C	**0.498**	**0.012**	**0.28**
PCB-041	E1668C	0.00095 U	0.000332 U	0.000373 U
PCB-042	E1668C	**0.369**	**0.0112**	**0.126**
PCB-043	E1668C	**0.127**	**0.00189**	**0.0196**
PCB-044/047/065	E1668C	**3.502**	**0.102**	**3.058**
PCB-045	E1668C	**0.066**	**0.00499**	**0.119**
PCB-046	E1668C	**0.0399**	0.000425 U	**0.014**
PCB-048	E1668C	0.000668 U	0.000212 U	**0.0126**
PCB-049/069	E1668C	**4.694 J**	**0.14**	**1.783**
PCB-050/053	E1668C	**0.944**	**0.0336**	**0.806**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP12-B-C-1/2-BST 6/17/2024 HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	VP12-B-C-1/2-BST 6/17/2024 HOUS-COL-VP12-CTRL-DRY1-PW-SPME-240617	VP81-G-10/11-BST 3/26/2024 HOUS-COL-VP81-THIN-BL-PW-SPME-240326
PCB-051	E1668C	**0.244**	**0.00521**	**0.22**
PCB-052	E1668C	**14.027 J**	**0.45**	**3.613**
PCB-054	E1668C	**0.0448**	**0.00252**	**0.0495**
PCB-055	E1668C	0.00547 U	0.000194 U	0.00403 U
PCB-056	E1668C	**0.0924**	**0.00182**	**0.0526**
PCB-057	E1668C	0.00523 U	0.00019 U	0.00408 U
PCB-058	E1668C	**0.0207**	0.000168 U	0.00359 U
PCB-059/062/075	E1668C	**0.2**	**0.0058**	**0.0876**
PCB-060	E1668C	**0.0232**	**0.000365**	**0.00945**
PCB-061/070/074/076	E1668C	**1.593**	**0.0338**	**0.642**
PCB-063	E1668C	**0.0203**	**0.000403**	**0.00665**
PCB-064	E1668C	**0.563**	**0.016**	**0.167**
PCB-066	E1668C	**0.696**	**0.0114**	**0.346**
PCB-067	E1668C	**0.01**	**0.000473**	0.00338 U
PCB-068	E1668C	**0.0558**	**0.00111**	**0.0331**
PCB-072	E1668C	**0.108**	**0.00236**	**0.0466**
PCB-073	E1668C	**0.156**	**0.00336**	**0.105**
PCB-077	E1668C	**0.0114 J**	**0.00023 J**	**0.0174**
PCB-078	E1668C	0.00495 U	0.000133 U	0.0031 U
PCB-079	E1668C	**0.055**	**0.00144**	**0.031**
PCB-080	E1668C	0.0034 U	0.0000968 U	0.00246 U
PCB-081	E1668C	0.00469 U	0.000138 U	0.00293 U
PCB-082	E1668C	**0.557**	**0.0187**	**0.529**
PCB-083	E1668C	**0.538**	**0.0207**	**0.55**
PCB-084	E1668C	**3.04 J**	**0.141**	**3.195 J**
PCB-085/116	E1668C	**1.269**	**0.0403**	**1.242**
PCB-086/087/097/109/119/125	E1668C	**6.479**	**0.225**	**5.63**
PCB-088	E1668C	0.0974 U	0.00479 U	0.124 U
PCB-089	E1668C	0.0937 U	0.00446 U	0.119 U
PCB-090/101/113	E1668C	**20.13 J**	**0.653**	**14.071 J**
PCB-091	E1668C	**3.219 J**	**0.134**	**3.307 J**
PCB-092	E1668C	**4.63 J**	**0.155**	**3.774 J**
PCB-093/100	E1668C	**0.699**	**0.0307**	**0.889**
PCB-094	E1668C	**0.194**	**0.00865**	**0.255**
PCB-095	E1668C	**27.272 J**	**1.131**	**21.772 J**
PCB-096	E1668C	**0.215**	**0.0152**	**0.356**
PCB-098	E1668C	0.0787 U	0.0037 U	0.109 U
PCB-099	E1668C	**5.52 J**	**0.17**	**3.764 J**
PCB-102	E1668C	**0.412**	**0.0174**	**0.313**
PCB-103	E1668C	**0.656**	**0.0304**	**0.514**
PCB-104	E1668C	**0.0261 J**	**0.00222**	**0.0332**
PCB-105	E1668C	**0.663**	**0.012**	**0.325**
PCB-106	E1668C	0.0388 U	0.00107 U	0.0383 U
PCB-107	E1668C	**0.208**	**0.00374**	**0.0999**
PCB-108/124	E1668C	**0.133**	**0.00261**	**0.111**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP12-B-C-1/2-BST 6/17/2024 HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	VP12-B-C-1/2-BST 6/17/2024 HOUS-COL-VP12-CTRL-DRY1-PW-SPME-240617	VP81-G-10/11-BST 3/26/2024 HOUS-COL-VP81-THIN-BL-PW-SPME-240326
PCB-110	E1668C	**11.131 J**	**0.25**	**7.507 J**
PCB-111	E1668C	0.0331 U	0.000967 U	0.0341 U
PCB-112	E1668C	0.0365 U	0.00132 U	0.0439 U
PCB-114	E1668C	0.0376 U	0.00125 U	0.0336 U
PCB-115	E1668C	0.0347 U	0.00131 U	0.0433 U
PCB-117	E1668C	**0.15**	**0.00602**	**0.111**
PCB-118	E1668C	**2.426 J**	**0.0479**	**1.137 J**
PCB-120	E1668C	0.0275 U	0.000757 U	0.0269 U
PCB-121	E1668C	0.0321 U	0.00102 U	0.0371 U
PCB-122	E1668C	0.0459 U	0.00139 U	0.0435 U
PCB-123	E1668C	**0.0513**	0.00109 U	**0.0396**
PCB-126	E1668C	**0.0016 J**	0.0000607 U	**0.00373**
PCB-127	E1668C	0.0304 U	0.000778 U	0.0237 U
PCB-128/166	E1668C	**0.888**	**0.0274**	**0.71**
PCB-129/138/163	E1668C	**9.879 J**	**0.399**	**11.289 J**
PCB-130	E1668C	**0.434**	**0.0184**	**0.517**
PCB-131	E1668C	**0.111**	**0.00568**	**0.137**
PCB-132	E1668C	**4.013 J**	**0.21**	**5.003 J**
PCB-133	E1668C	**0.164**	**0.00728**	**0.184**
PCB-134	E1668C	**1.028**	**0.0469**	**1.163**
PCB-135/151	E1668C	**9.1 J**	**0.437**	**9.245 J**
PCB-136	E1668C	**4.366 J**	**0.188**	**3.274 J**
PCB-137	E1668C	**0.156**	**0.00795**	**0.186**
PCB-139/140	E1668C	**0.153**	**0.00749**	**0.149**
PCB-141	E1668C	**2.509 J**	**0.103**	**2.805 J**
PCB-142	E1668C	0.0000899 U	0.000124 U	0.0000933 U
PCB-143	E1668C	0.0000722 U	0.000102 U	0.0000728 U
PCB-144	E1668C	**0.896**	**0.0429**	**1.045**
PCB-145	E1668C	**0.0149**	0.000149 U	0.0000863 U
PCB-146	E1668C	**1.446 J**	**0.0607**	**1.574 J**
PCB-147/149	E1668C	**16.16 J**	**0.768**	**15.966 J**
PCB-148	E1668C	**0.0418**	**0.0022**	**0.0481**
PCB-150	E1668C	**0.103**	**0.00575**	**0.104**
PCB-152	E1668C	**0.0516**	**0.00275**	**0.0641**
PCB-153/168	E1668C	**9.725 J**	**0.393**	**9.246 J**
PCB-154	E1668C	**0.277**	**0.0135**	**0.252**
PCB-155	E1668C	**0.00256**	**0.000131**	**0.00221**
PCB-156/157	E1668C	**0.259**	**0.00827**	**0.165**
PCB-158	E1668C	**0.563**	**0.0235**	**0.651**
PCB-159	E1668C	**0.13**	**0.00522**	**0.065**
PCB-160	E1668C	0.0000488 U	0.0000515 U	0.000043 U
PCB-161	E1668C	0.0000349 U	0.0000433 U	0.0000298 U
PCB-162	E1668C	**0.0137**	**0.000425**	**0.0133**
PCB-164	E1668C	**0.513**	**0.0202**	**0.577**
PCB-165	E1668C	0.0000405 U	0.0000505 U	**0.0145**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP12-B-C-1/2-BST 6/17/2024 HOUS-COL-VP12-MIXED-DRY1-PW-SPME-240617	VP12-B-C-1/2-BST 6/17/2024 HOUS-COL-VP12-CTRL-DRY1-PW-SPME-240617	VP81-G-10/11-BST 3/26/2024 HOUS-COL-VP81-THIN-BL-PW-SPME-240326
PCB-167	E1668C	**0.155**	**0.00547**	**0.121**
PCB-169	E1668C	0.0147 U	0.000388 U	0.000598 U
PCB-170	E1668C	**1.485 J**	**0.0815**	**1.238 J**
PCB-171/173	E1668C	**0.666**	**0.0351**	**0.608**
PCB-172	E1668C	**0.287**	**0.0198**	**0.237**
PCB-174	E1668C	**2.899 J**	**0.143**	**2.376 J**
PCB-175	E1668C	**0.118**	**0.00629**	**0.104**
PCB-176	E1668C	**0.833**	**0.0393**	**0.648**
PCB-177	E1668C	**1.506 J**	**0.0772**	**1.302 J**
PCB-178	E1668C	**0.889 J**	**0.0427**	**0.602**
PCB-179	E1668C	**3.237 J**	**0.148**	**2.244 J**
PCB-180/193	E1668C	**3.405 J**	**0.236**	**2.883 J**
PCB-181	E1668C	**0.0134**	**0.000601**	**0.0101**
PCB-182	E1668C	**0.0177**	**0.00116**	**0.0138**
PCB-183	E1668C	**1.577 J**	**0.0844**	**1.206 J**
PCB-184	E1668C	0.0000928 U	**0.00015**	**0.00227**
PCB-185	E1668C	**0.403**	**0.0212**	**0.316**
PCB-186	E1668C	0.0000977 U	0.0000452 U	0.0000728 U
PCB-187	E1668C	**3.53 J**	**0.187**	**2.603 J**
PCB-188	E1668C	**0.0088**	**0.000383**	**0.00666**
PCB-189	E1668C	**0.024**	**0.00329**	**0.0196**
PCB-190	E1668C	**0.282**	**0.0218**	**0.206**
PCB-191	E1668C	**0.0529**	**0.00525**	**0.0426**
PCB-192	E1668C	0.00124 U	0.000105 U	0.000291 U
PCB-194	E1668C	**0.271**	**0.0641**	**0.195**
PCB-195	E1668C	**0.184**	**0.026**	**0.134**
PCB-196	E1668C	**0.242**	**0.0447**	**0.166**
PCB-197	E1668C	**0.0304**	**0.00281**	**0.0253**
PCB-198/199	E1668C	**0.544**	**0.0894**	**0.349**
PCB-200	E1668C	**0.146**	**0.0131**	**0.097**
PCB-201	E1668C	**0.102**	**0.0187**	**0.0622**
PCB-202	E1668C	**0.189**	**0.0191**	**0.1**
PCB-203	E1668C	**0.294**	**0.0522**	**0.184**
PCB-204	E1668C	0.000169 U	**0.0000363 J**	0.0000836 U
PCB-205	E1668C	**0.0143**	**0.00562**	**0.00904**
PCB-206	E1668C	**0.0446**	**0.0361**	**0.0233**
PCB-207	E1668C	**0.0102**	**0.00327**	**0.00635**
PCB-208	E1668C	**0.0161**	**0.00516**	**0.00805**
PCB-209	E1668C	**0.00195**	**0.00156**	**0.000925**
Total PCB Congener (U = 0 max limit)	Calculated	**200 J**	**8.3 J**	**160 J**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 3/26/2024 HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	VP81-G-10/11-BST 3/26/2024 HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	VP81-G-10/11-BST 3/26/2024 HOUS-COL-VP81-CTRL-BL-PW-SPME-240326
PCB Congeners (SPME) (ng/L)				
PCB-001	E1668C	**0.0169 J**	**0.0182**	**0.0212**
PCB-002	E1668C	0.00113 U	0.00138 U	0.00161 U
PCB-003	E1668C	0.00117 U	0.00144 U	0.00168 U
PCB-004	E1668C	**0.0631**	**0.0581 J**	**0.0608**
PCB-005	E1668C	0.00194 U	0.00144 U	0.00223 U
PCB-006	E1668C	**0.00403**	**0.00477**	**0.00392**
PCB-007	E1668C	0.00152 U	0.00113 U	0.00177 U
PCB-008	E1668C	**0.014**	**0.0143 J**	**0.0152**
PCB-009	E1668C	0.00145 U	**0.000703 J**	0.00168 U
PCB-010	E1668C	0.00295 U	0.00296 U	0.00391 U
PCB-011	E1668C	**0.00357**	**0.00359**	**0.00395**
PCB-012/013	E1668C	**0.00198 J**	**0.00205 J**	**0.00162 J**
PCB-014	E1668C	0.00107 U	0.000794 U	0.00127 U
PCB-015	E1668C	**0.0214**	**0.0232**	**0.0253**
PCB-016	E1668C	**0.00524**	**0.00587 J**	**0.00703**
PCB-017	E1668C	**0.0421**	**0.0433**	**0.0452**
PCB-018/030	E1668C	**0.0213**	**0.0234**	**0.0228**
PCB-019	E1668C	**0.0153**	**0.0149**	**0.0176**
PCB-020/028	E1668C	**0.032**	**0.0338**	**0.0367**
PCB-021/033	E1668C	**0.0159**	**0.0174**	**0.018**
PCB-022	E1668C	**0.00505**	**0.00511**	**0.00604**
PCB-023	E1668C	0.00124 U	0.00141 U	0.00162 U
PCB-024	E1668C	0.00144 U	0.00173 U	0.0018 U
PCB-025	E1668C	**0.0187**	**0.0201**	**0.0214**
PCB-026/029	E1668C	**0.0138**	**0.0151**	**0.0161**
PCB-027	E1668C	**0.0086**	**0.00907**	**0.0107**
PCB-031	E1668C	**0.0287**	**0.0299**	**0.0326**
PCB-032	E1668C	**0.0233**	**0.0221**	**0.0253**
PCB-034	E1668C	0.00109 U	0.00124 U	0.00144 U
PCB-035	E1668C	0.000751 U	0.000854 U	0.00101 U
PCB-036	E1668C	0.000621 U	0.000707 U	0.000845 U
PCB-037	E1668C	**0.0095**	**0.00994**	**0.0123**
PCB-038	E1668C	**0.00136 J**	**0.00144 J**	**0.00223**
PCB-039	E1668C	0.000676 U	0.000769 U	0.000922 U
PCB-040/071	E1668C	**0.271**	**0.27**	**0.313**
PCB-041	E1668C	0.000509 U	0.000592 U	0.000699 U
PCB-042	E1668C	**0.121**	**0.126**	**0.146**
PCB-043	E1668C	0.000386 U	0.000449 U	0.000535 U
PCB-044/047/065	E1668C	**2.986**	**3.005**	**3.413**
PCB-045	E1668C	**0.0783**	**0.107**	**0.115**
PCB-046	E1668C	**0.0162**	**0.0177**	**0.0194**
PCB-048	E1668C	**0.0118**	**0.0133**	**0.0133**
PCB-049/069	E1668C	**1.75**	**1.746**	**2.054**
PCB-050/053	E1668C	**0.789**	**0.776**	**0.867**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 3/26/2024 HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	VP81-G-10/11-BST 3/26/2024 HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	VP81-G-10/11-BST 3/26/2024 HOUS-COL-VP81-CTRL-BL-PW-SPME-240326
PCB-051	E1668C	**0.238**	**0.215**	**0.245**
PCB-052	E1668C	**3.537**	**3.566**	**4.089**
PCB-054	E1668C	**0.0477**	**0.0513**	**0.0543**
PCB-055	E1668C	0.0042 U	0.0038 U	0.00449 U
PCB-056	E1668C	**0.0519**	**0.0504**	**0.0621**
PCB-057	E1668C	0.00423 U	0.00387 U	0.00457 U
PCB-058	E1668C	0.00374 U	0.00341 U	0.00402 U
PCB-059/062/075	E1668C	**0.0846**	**0.0879**	**0.102**
PCB-060	E1668C	**0.00942**	**0.00909**	**0.0118**
PCB-061/070/074/076	E1668C	**0.621**	**0.624**	**0.741**
PCB-063	E1668C	**0.00652**	**0.00685**	**0.00791**
PCB-064	E1668C	**0.163**	**0.163**	**0.195**
PCB-066	E1668C	**0.348**	**0.351**	**0.429**
PCB-067	E1668C	**0.00589**	**0.00676**	**0.00797**
PCB-068	E1668C	**0.0323**	**0.0329**	**0.0411**
PCB-072	E1668C	**0.0459**	**0.0467**	**0.0573**
PCB-073	E1668C	**0.107**	**0.114**	**0.136**
PCB-077	E1668C	**0.0177**	**0.0177**	**0.0224**
PCB-078	E1668C	0.00323 U	0.00296 U	0.00358 U
PCB-079	E1668C	**0.0317**	**0.0316**	**0.0384**
PCB-080	E1668C	0.00259 U	0.00236 U	0.00292 U
PCB-081	E1668C	0.00306 U	0.00278 U	0.0034 U
PCB-082	E1668C	**0.507**	**0.515**	**0.643**
PCB-083	E1668C	**0.426**	**0.416**	0.129 U
PCB-084	E1668C	**3.024 J**	**3.155 J**	**3.781 J**
PCB-085/116	E1668C	**1.174**	**1.171**	**1.444**
PCB-086/087/097/109/119/125	E1668C	**5.362**	**5.545**	**6.828**
PCB-088	E1668C	0.113 U	0.124 U	0.138 U
PCB-089	E1668C	0.108 U	0.118 U	0.131 U
PCB-090/101/113	E1668C	**13.401 J**	**14.163 J**	**17.641 J**
PCB-091	E1668C	**3.083 J**	**3.276 J**	**3.906 J**
PCB-092	E1668C	**3.591 J**	**3.755 J**	**4.668 J**
PCB-093/100	E1668C	**0.807**	**0.891**	**1.049**
PCB-094	E1668C	**0.242**	**0.254**	**0.301**
PCB-095	E1668C	**20.558 J**	**21.733 J**	**26.019 J**
PCB-096	E1668C	**0.341**	**0.358**	**0.392**
PCB-098	E1668C	0.10 U	0.109 U	0.122 U
PCB-099	E1668C	**3.614 J**	**3.812 J**	**4.735 J**
PCB-102	E1668C	**0.277**	**0.314**	**0.393**
PCB-103	E1668C	**0.487**	**0.519**	**0.617**
PCB-104	E1668C	**0.0314**	**0.0334**	**0.0369**
PCB-105	E1668C	**0.317**	**0.321**	**0.432**
PCB-106	E1668C	0.0355 U	0.0391 U	0.0469 U
PCB-107	E1668C	**0.0954**	**0.0979**	**0.129**
PCB-108/124	E1668C	**0.106**	**0.111**	**0.148**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 3/26/2024 HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	VP81-G-10/11-BST 3/26/2024 HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	VP81-G-10/11-BST 3/26/2024 HOUS-COL-VP81-CTRL-BL-PW-SPME-240326
PCB-110	E1668C	**7.274 J**	**7.574 J**	**9.684 J**
PCB-111	E1668C	0.0316 U	0.0349 U	0.0427 U
PCB-112	E1668C	0.0404 U	0.0444 U	0.0521 U
PCB-114	E1668C	0.0328 U	0.0319 U	0.0444 U
PCB-115	E1668C	0.040 U	0.0438 U	0.0516 U
PCB-117	E1668C	**0.103**	**0.13**	**0.165**
PCB-118	E1668C	**1.088 J**	**1.156 J**	**1.52 J**
PCB-120	E1668C	0.025 U	0.0276 U	0.0339 U
PCB-121	E1668C	0.0344 U	0.0377 U	0.0455 U
PCB-122	E1668C	0.0423 U	0.0411 U	0.0574 U
PCB-123	E1668C	**0.0387**	**0.0373**	**0.049**
PCB-126	E1668C	**0.00339**	**0.00426**	**0.00473**
PCB-127	E1668C	0.0227 U	0.0242 U	0.0319 U
PCB-128/166	E1668C	**0.716**	**0.746**	**1.007**
PCB-129/138/163	E1668C	**10.791 J**	**11.03 J**	**14.267 J**
PCB-130	E1668C	**0.515**	**0.494**	**0.651**
PCB-131	E1668C	**0.129**	**0.129**	**0.164**
PCB-132	E1668C	**4.819 J**	**4.879 J**	**6.123 J**
PCB-133	E1668C	**0.177**	**0.176**	**0.232**
PCB-134	E1668C	**1.086**	**1.127**	**1.384**
PCB-135/151	E1668C	**8.829 J**	**9.084 J**	**11.24 J**
PCB-136	E1668C	**3.108 J**	**3.426 J**	**4.338 J**
PCB-137	E1668C	**0.176**	**0.136**	**0.22**
PCB-139/140	E1668C	**0.142**	**0.147**	**0.181**
PCB-141	E1668C	**2.679 J**	**2.696 J**	**3.561 J**
PCB-142	E1668C	0.000328 U	0.000482 U	0.000711 U
PCB-143	E1668C	0.000256 U	0.000376 U	0.000564 U
PCB-144	E1668C	**1.007**	**1.016**	**1.274**
PCB-145	E1668C	0.000299 U	0.00044 U	0.000608 U
PCB-146	E1668C	**1.511 J**	**1.527 J**	**2.017 J**
PCB-147/149	E1668C	**15.025 J**	**15.672 J**	**19.447 J**
PCB-148	E1668C	**0.0457**	**0.0465**	**0.0596**
PCB-150	E1668C	**0.0973**	**0.107**	**0.129**
PCB-152	E1668C	**0.0594**	**0.0666**	**0.0775**
PCB-153/168	E1668C	**8.954 J**	**9.211 J**	**12.288 J**
PCB-154	E1668C	**0.243**	**0.256**	**0.319**
PCB-155	E1668C	**0.00196**	**0.00235**	**0.00274**
PCB-156/157	E1668C	**0.164**	**0.168**	**0.237**
PCB-158	E1668C	**0.629**	**0.639**	**0.851**
PCB-159	E1668C	**0.0628**	**0.0685**	**0.1**
PCB-160	E1668C	0.000153 U	0.000226 U	0.000353 U
PCB-161	E1668C	0.000107 U	0.000158 U	0.000251 U
PCB-162	E1668C	**0.013**	**0.0136**	**0.0199**
PCB-164	E1668C	**0.562**	**0.588**	**0.764**
PCB-165	E1668C	0.000128 U	**0.0143**	0.000299 U

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 3/26/2024 HOUS-COL-VP81-AMEND-BL-PW-SPME-240326	VP81-G-10/11-BST 3/26/2024 HOUS-COL-VP81-MIXED-BL-PW-SPME-240326	VP81-G-10/11-BST 3/26/2024 HOUS-COL-VP81-CTRL-BL-PW-SPME-240326
PCB-167	E1668C	**0.119**	**0.124**	**0.178**
PCB-169	E1668C	0.000468 U	0.000548 U	0.000904 U
PCB-170	E1668C	**1.196 J**	**1.278 J**	**1.791 J**
PCB-171/173	E1668C	**0.59**	**0.603**	**0.859**
PCB-172	E1668C	**0.232**	**0.238**	**0.352**
PCB-174	E1668C	**2.296 J**	**2.388 J**	**3.409 J**
PCB-175	E1668C	**0.102**	**0.105**	**0.148**
PCB-176	E1668C	**0.64**	**0.658**	**0.854**
PCB-177	E1668C	**1.261 J**	**1.295 J**	**1.837 J**
PCB-178	E1668C	**0.595**	**0.611**	**0.842**
PCB-179	E1668C	**2.239 J**	**2.268 J**	**2.934 J**
PCB-180/193	E1668C	**2.818 J**	**2.887 J**	**4.306 J**
PCB-181	E1668C	**0.00919**	**0.00967**	**0.0135**
PCB-182	E1668C	**0.0132**	**0.0158**	0.00102 U
PCB-183	E1668C	**1.161 J**	**1.193 J**	**1.693 J**
PCB-184	E1668C	**0.00215**	0.000138 U	0.000217 U
PCB-185	E1668C	**0.306**	**0.317**	**0.445**
PCB-186	E1668C	0.000122 U	0.000151 U	0.000233 U
PCB-187	E1668C	**2.502 J**	**2.624 J**	**3.735 J**
PCB-188	E1668C	**0.00658**	**0.00685**	**0.00911**
PCB-189	E1668C	**0.0194**	**0.0202**	**0.0312**
PCB-190	E1668C	**0.201**	**0.218**	**0.313**
PCB-191	E1668C	**0.0468**	**0.0432**	**0.0656**
PCB-192	E1668C	0.000363 U	0.000418 U	0.000612 U
PCB-194	E1668C	**0.186**	**0.197**	**0.304**
PCB-195	E1668C	**0.126**	**0.134**	**0.201**
PCB-196	E1668C	**0.158**	**0.174**	**0.253**
PCB-197	E1668C	**0.0236**	**0.0253**	**0.0344**
PCB-198/199	E1668C	**0.34**	**0.366**	**0.528**
PCB-200	E1668C	**0.0922**	**0.1**	**0.137**
PCB-201	E1668C	**0.0592**	**0.0658**	**0.0917**
PCB-202	E1668C	**0.0968**	**0.106**	**0.144**
PCB-203	E1668C	**0.178**	**0.192**	**0.279**
PCB-204	E1668C	0.0000761 U	0.000111 U	**0.00022**
PCB-205	E1668C	**0.0087**	**0.00917**	**0.0147**
PCB-206	E1668C	**0.0219**	**0.0233**	**0.0359**
PCB-207	E1668C	**0.00595**	**0.00677**	**0.00967**
PCB-208	E1668C	**0.00785**	**0.00876**	**0.0124**
PCB-209	E1668C	**0.000836**	**0.00095**	**0.00142**
Total PCB Congener (U = 0 max limit)	Calculated	**160 J**	**160 J**	**200 J**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID / Sample Date / Sample ID / Method	VP81-G-10/11-BST 5/28/2024 HOUS-COL-VP81-THIN-WET1-PW-SPME-240528	VP81-G-10/11-BST 5/28/2024 HOUS-COL-VP81-AMEND-WET1-PW-SPME-240528	VP81-G-10/11-BST 5/28/2024 HOUS-COL-VP81-MIXED-WET1-PW-SPME-240528
PCB Congeners (SPME) (ng/L)				
PCB-001	E1668C	**0.00147 J**	0.00418 U	0.0014 U
PCB-002	E1668C	0.000583 U	0.00181 U	0.000543 U
PCB-003	E1668C	0.000572 U	0.00178 U	0.000549 U
PCB-004	E1668C	0.00451 U	0.00591 U	0.000824 U
PCB-005	E1668C	0.00192 U	0.00535 U	0.000798 U
PCB-006	E1668C	0.00132 U	0.00347 U	0.000527 U
PCB-007	E1668C	0.00153 U	0.00398 U	0.000608 U
PCB-008	E1668C	**0.00174 J**	**0.00363 J**	0.000486 U
PCB-009	E1668C	0.0014 U	0.00366 U	0.00056 U
PCB-010	E1668C	0.000611 U	0.00332 U	0.00056 U
PCB-011	E1668C	**0.00385**	**0.00766**	0.00174 U
PCB-012/013	E1668C	0.00114 U	0.00275 U	0.000474 U
PCB-014	E1668C	0.0010 U	0.00233 U	0.000422 U
PCB-015	E1668C	0.000778 U	0.00179 U	0.000321 U
PCB-016	E1668C	**0.000589 J**	0.000642 U	0.000287 U
PCB-017	E1668C	**0.00199**	0.000499 U	0.000244 U
PCB-018/030	E1668C	**0.00139 J**	0.000362 U	**0.000271 J**
PCB-019	E1668C	**0.00327**	0.00106 U	0.000383 U
PCB-020/028	E1668C	**0.00249 J**	**0.00769**	0.00017 U
PCB-021/033	E1668C	**0.00754**	**0.000262 J**	0.000203 U
PCB-022	E1668C	0.00111 U	0.00148 U	0.000154 U
PCB-023	E1668C	0.00126 U	0.0017 U	0.000181 U
PCB-024	E1668C	0.000132 U	0.000272 U	0.000132 U
PCB-025	E1668C	**0.0114**	0.00108 U	0.000119 U
PCB-026/029	E1668C	0.00105 U	0.00136 U	0.000149 U
PCB-027	E1668C	**0.000311 J**	0.000223 U	0.000113 U
PCB-031	E1668C	**0.00177 J**	**0.00126 J**	0.000123 U
PCB-032	E1668C	**0.000693 J**	0.000202 U	0.000112 U
PCB-034	E1668C	0.00105 U	0.00137 U	0.000152 U
PCB-035	E1668C	0.000763 U	0.00094 U	0.000104 U
PCB-036	E1668C	0.000559 U	0.000674 U	0.0000823 U
PCB-037	E1668C	0.00064 U	0.000785 U	0.0000968 U
PCB-038	E1668C	0.000796 U	0.0010 U	0.000118 U
PCB-039	E1668C	0.000609 U	0.000733 U	0.0000896 U
PCB-040/071	E1668C	**0.0609**	0.00165 U	**0.000161 J**
PCB-041	E1668C	0.000731 U	0.00284 U	0.0000573 U
PCB-042	E1668C	**0.0281**	0.00206 U	**0.000112 J**
PCB-043	E1668C	0.000486 U	0.00185 U	0.0000388 U
PCB-044/047/065	E1668C	**0.565**	**0.00536 J**	**0.00155 J**
PCB-045	E1668C	**0.0733**	0.00378 U	0.0000753 U
PCB-046	E1668C	**0.0116**	0.00394 U	0.000073 U
PCB-048	E1668C	**0.00318 J**	0.0018 U	0.0000367 U
PCB-049/069	E1668C	**0.35**	**0.00178 J**	**0.000678 J**
PCB-050/053	E1668C	**0.575**	0.00247 U	**0.000263 J**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 5/28/2024 HOUS-COL-VP81-THIN-WET1-PW-SPME-240528	VP81-G-10/11-BST 5/28/2024 HOUS-COL-VP81-AMEND-WET1-PW-SPME-240528	VP81-G-10/11-BST 5/28/2024 HOUS-COL-VP81-MIXED-WET1-PW-SPME-240528
PCB-051	E1668C	**0.147**	0.00248 U	**0.00014 J**
PCB-052	E1668C	**0.975**	**0.00437**	**0.00166**
PCB-054	E1668C	**0.014**	0.000177 U	0.000083 U
PCB-055	E1668C	0.00104 U	0.000982 U	0.0000632 U
PCB-056	E1668C	0.00109 U	**0.00157 J**	0.0000689 U
PCB-057	E1668C	0.000996 U	0.00093 U	0.000060 U
PCB-058	E1668C	**0.00484**	0.000824 U	0.0000532 U
PCB-059/062/075	E1668C	**0.017**	0.000949 U	0.0000206 U
PCB-060	E1668C	0.00128 U	0.00121 U	0.0000752 U
PCB-061/070/074/076	E1668C	**0.0559**	**0.00539 J**	**0.000576 J**
PCB-063	E1668C	0.00106 U	0.000995 U	0.000065 U
PCB-064	E1668C	**0.0225**	**0.00151 J**	**0.0000926 J**
PCB-066	E1668C	**0.00618**	**0.00207**	**0.000253 J**
PCB-067	E1668C	**0.00455**	0.000755 U	0.000048 U
PCB-068	E1668C	**0.00134**	0.000735 U	0.0000482 U
PCB-072	E1668C	**0.00201**	0.000695 U	0.0000466 U
PCB-073	E1668C	**0.0313**	0.000699 U	**0.0000335 J**
PCB-077	E1668C	0.00177 U	0.00142 U	0.0000674 U
PCB-078	E1668C	0.000723 U	0.000651 U	0.000050 U
PCB-079	E1668C	**0.00445**	0.000469 U	0.0000326 U
PCB-080	E1668C	0.000502 U	0.000442 U	0.0000317 U
PCB-081	E1668C	0.000651 U	0.000586 U	0.0000478 U
PCB-082	E1668C	**0.0142**	0.000126 U	**0.000659**
PCB-083	E1668C	**0.0231**	0.000131 U	**0.000445**
PCB-084	E1668C	**0.269**	0.000207 U	**0.0025**
PCB-085/116	E1668C	**0.0232**	0.0000884 U	**0.00133**
PCB-086/087/097/109/119/125	E1668C	**0.148**	0.000186 UJ	**0.00535**
PCB-088	E1668C	0.00323 U	0.000165 U	0.000179 U
PCB-089	E1668C	**0.00392**	0.000164 U	0.000162 U
PCB-090/101/113	E1668C	**0.384**	**0.000277 J**	**0.0126**
PCB-091	E1668C	**0.216**	0.000147 U	**0.00242**
PCB-092	E1668C	**0.125**	0.0000905 U	**0.00292**
PCB-093/100	E1668C	**0.0575**	0.000183 U	**0.000718**
PCB-094	E1668C	**0.0262**	0.00016 U	0.000168 U
PCB-095	E1668C	**1.649 J**	**0.000375 J**	**0.0146**
PCB-096	E1668C	**0.0717**	0.000229 U	**0.00039 J**
PCB-098	E1668C	0.00263 U	0.000133 U	0.000116 U
PCB-099	E1668C	**0.0881**	**0.000117 J**	**0.00387**
PCB-102	E1668C	**0.0287**	0.000105 U	**0.000255**
PCB-103	E1668C	**0.0345**	0.000108 U	**0.000331**
PCB-104	E1668C	**0.00803**	0.00021 U	0.0000547 U
PCB-105	E1668C	**0.00219**	0.0000375 U	**0.000561**
PCB-106	E1668C	0.000738 U	0.0000337 U	0.0000406 U
PCB-107	E1668C	0.000602 U	0.0000272 U	**0.000118**
PCB-108/124	E1668C	0.000658 U	0.0000297 U	**0.000103 J**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 5/28/2024 HOUS-COL-VP81-THIN-WET1-PW-SPME-240528	VP81-G-10/11-BST 5/28/2024 HOUS-COL-VP81-AMEND-WET1-PW-SPME-240528	VP81-G-10/11-BST 5/28/2024 HOUS-COL-VP81-MIXED-WET1-PW-SPME-240528
PCB-110	E1668C	**0.138**	**0.000155**	**0.0079**
PCB-111	E1668C	0.000582 U	0.0000263 U	0.0000358 U
PCB-112	E1668C	0.00090 U	0.0000422 U	0.0000509 U
PCB-114	E1668C	0.000745 U	0.0000355 U	0.0000477 U
PCB-115	E1668C	0.000871 U	0.0000408 U	0.000051 U
PCB-117	E1668C	**0.00204**	0.0000507 U	**0.000106 J**
PCB-118	E1668C	**0.00278**	**0.0000385 J**	**0.00136**
PCB-120	E1668C	0.000453 U	0.0000202 U	**0.0000287 J**
PCB-121	E1668C	**0.00014 J**	0.0000298 U	0.0000373 U
PCB-122	E1668C	0.000867 U	0.0000413 U	0.0000611 U
PCB-123	E1668C	0.000648 U	0.0000293 U	**0.0000479 J**
PCB-126	E1668C	0.00034 UJ	0.000388 UJ	0.0000145 U
PCB-127	E1668C	0.000406 U	0.000018 U	0.0000303 U
PCB-128/166	E1668C	**0.0156**	0.0000293 U	**0.00253**
PCB-129/138/163	E1668C	**0.192**	**0.000126 J**	**0.0292**
PCB-130	E1668C	**0.0101**	0.0000501 U	**0.0015**
PCB-131	E1668C	**0.00639**	0.0000731 U	**0.000275 J**
PCB-132	E1668C	**0.263**	**0.0000969 J**	**0.012**
PCB-133	E1668C	**0.00438**	0.0000347 U	**0.000459**
PCB-134	E1668C	**0.0614**	0.0000855 U	**0.0024**
PCB-135/151	E1668C	**0.472**	**0.000136 J**	**0.0201**
PCB-136	E1668C	**0.345 J**	**0.0000713 J**	**0.00773**
PCB-137	E1668C	**0.00261**	0.0000446 U	**0.000545**
PCB-139/140	E1668C	**0.00607**	0.0000487 U	**0.000351**
PCB-141	E1668C	**0.0539**	**0.0000473 J**	**0.00684**
PCB-142	E1668C	0.0000524 U	0.0000855 U	0.000020 U
PCB-143	E1668C	0.0000401 U	0.0000645 U	**0.000073 J**
PCB-144	E1668C	**0.0418**	0.0000524 U	**0.00204**
PCB-145	E1668C	0.0000636 U	0.0000935 U	0.0000223 U
PCB-146	E1668C	**0.0308**	0.0000277 U	**0.00441**
PCB-147/149	E1668C	**0.857 J**	**0.000163 J**	**0.0352**
PCB-148	E1668C	**0.00211**	0.0000459 U	**0.0000902**
PCB-150	E1668C	**0.0131**	0.0000851 U	**0.00037**
PCB-152	E1668C	**0.00916**	0.0000922 U	**0.000171 J**
PCB-153/168	E1668C	**0.149**	**0.0000684 J**	**0.024**
PCB-154	E1668C	**0.0107**	0.0000395 U	**0.000639**
PCB-155	E1668C	**0.000204**	0.0000242 U	0.00000765 U
PCB-156/157	E1668C	**0.000329**	0.0000234 U	**0.000673**
PCB-158	E1668C	**0.00698**	0.0000198 U	**0.00179**
PCB-159	E1668C	**0.00267**	0.0000118 U	**0.000582**
PCB-160	E1668C	0.0000161 U	0.0000248 U	0.00000876 U
PCB-161	E1668C	0.0000104 U	0.0000159 U	0.00000651 U
PCB-162	E1668C	**0.0000413**	0.0000139 U	**0.0000448 J**
PCB-164	E1668C	**0.0076**	0.0000177 U	**0.00161**
PCB-165	E1668C	0.000013 U	0.0000198 U	**0.0000408 J**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 5/28/2024 HOUS-COL-VP81-THIN-WET1-PW-SPME-240528	VP81-G-10/11-BST 5/28/2024 HOUS-COL-VP81-AMEND-WET1-PW-SPME-240528	VP81-G-10/11-BST 5/28/2024 HOUS-COL-VP81-MIXED-WET1-PW-SPME-240528
PCB-167	E1668C	**0.000264**	0.0000131 U	**0.000508**
PCB-169	E1668C	0.000568 UJ	0.000459 UJ	0.000027 U
PCB-170	E1668C	**0.0168**	0.0000189 U	**0.0141**
PCB-171/173	E1668C	**0.02**	0.0000223 U	**0.00498**
PCB-172	E1668C	**0.00347**	0.0000144 U	**0.00276**
PCB-174	E1668C	**0.101**	**0.0000334 J**	**0.0176**
PCB-175	E1668C	**0.00345**	0.0000189 U	**0.000785**
PCB-176	E1668C	**0.0625**	0.0000352 U	**0.0042**
PCB-177	E1668C	**0.0519**	0.0000221 U	**0.01**
PCB-178	E1668C	**0.0248**	0.0000208 U	**0.00446**
PCB-179	E1668C	**0.251**	**0.0000475 J**	**0.0145**
PCB-180/193	E1668C	**0.0373**	**0.0000319 J**	**0.0354**
PCB-181	E1668C	0.0000386 U	0.0000196 U	0.0000309 U
PCB-182	E1668C	**0.000483**	0.0000144 U	**0.000124**
PCB-183	E1668C	**0.041**	0.0000171 U	**0.0105**
PCB-184	E1668C	**0.000156 J**	0.0000276 U	0.00000555 U
PCB-185	E1668C	**0.0062**	0.000021 U	**0.00198**
PCB-186	E1668C	0.0000128 U	0.0000345 U	0.0000063 U
PCB-187	E1668C	**0.0965**	**0.0000253 J**	**0.0222**
PCB-188	E1668C	**0.000725**	0.0000333 U	**0.0000512 J**
PCB-189	E1668C	**0.0000305**	0.00000452 U	**0.000544**
PCB-190	E1668C	**0.0016**	0.00000913 U	**0.00318**
PCB-191	E1668C	**0.000341**	0.00000725 U	**0.000753**
PCB-192	E1668C	0.0000137 U	0.00000677 U	0.0000295 U
PCB-194	E1668C	**0.00167**	0.0000018 U	**0.0143**
PCB-195	E1668C	**0.00293**	0.00000299 U	**0.00494**
PCB-196	E1668C	**0.00432**	0.00000344 U	**0.00878**
PCB-197	E1668C	**0.00142**	0.00000485 U	**0.000505**
PCB-198/199	E1668C	**0.00951**	0.0000031 U	**0.0153**
PCB-200	E1668C	**0.00655**	0.0000055 U	**0.00204**
PCB-201	E1668C	**0.00304**	0.00000265 U	**0.00281**
PCB-202	E1668C	**0.00867**	0.00000474 U	**0.00263**
PCB-203	E1668C	**0.00399**	0.00000278 U	**0.00914**
PCB-204	E1668C	0.00000558 U	0.00000455 U	0.00000596 U
PCB-205	E1668C	**0.0000475**	0.00000106 U	**0.00105**
PCB-206	E1668C	**0.000366**	0.00000362 U	**0.00683**
PCB-207	E1668C	**0.000256**	0.00000372 U	**0.000682**
PCB-208	E1668C	**0.000414**	0.00000382 U	**0.00087**
PCB-209	E1668C	**0.000036**	0.00000205 U	**0.000274**
Total PCB Congener (U = 0 max limit)	Calculated	**9.6 J**	**0.0444 J**	**0.44 J**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID / Sample Date / Sample ID / Method	VP81-G-10/11-BST 5/28/2024 HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	VP81-G-10/11-BST 7/29/2024 HOUS-COL-VP81-THIN-DRY1-PW-SPME-240729	VP81-G-10/11-BST 7/29/2024 HOUS-COL-VP81-AMEND-DRY1-PW-SPME-240729
PCB Congeners (SPME) (ng/L)				
PCB-001	E1668C	**0.0172 J**	**0.00394 J**	0.00112 U
PCB-002	E1668C	0.000525 U	0.000491 U	0.000441 U
PCB-003	E1668C	**0.00249 J**	0.000486 U	0.000438 U
PCB-004	E1668C	**0.0769**	0.00187 U	0.000791 U
PCB-005	E1668C	**0.00131 J**	0.000514 U	0.00055 U
PCB-006	E1668C	**0.0047**	0.000484 U	0.000382 U
PCB-007	E1668C	**0.000898 J**	0.000423 U	0.000449 U
PCB-008	E1668C	**0.0143**	0.000501 U	0.000414 U
PCB-009	E1668C	**0.00125 J**	**0.000468 J**	0.000394 U
PCB-010	E1668C	**0.00512 J**	0.00121 U	0.000511 U
PCB-011	E1668C	0.0031 U	0.00271 U	0.00319 U
PCB-012/013	E1668C	**0.00305 J**	**0.000531 J**	0.000297 U
PCB-014	E1668C	0.000402 U	**0.000231 J**	0.000268 U
PCB-015	E1668C	**0.0185**	**0.000375 J**	0.000203 U
PCB-016	E1668C	**0.00662 J**	0.00042 U	0.000271 U
PCB-017	E1668C	**0.0442**	**0.00132 J**	0.000226 U
PCB-018/030	E1668C	**0.0244**	**0.00128 J**	0.000153 U
PCB-019	E1668C	**0.0192**	**0.000885 J**	0.000365 U
PCB-020/028	E1668C	**0.0325**	0.000207 U	**0.000304 J**
PCB-021/033	E1668C	**0.0161**	**0.00135 J**	0.000348 U
PCB-022	E1668C	**0.00514**	**0.000277 J**	0.000255 U
PCB-023	E1668C	0.000368 U	0.000231 U	0.000307 U
PCB-024	E1668C	**0.000752 J**	0.000199 U	0.000127 U
PCB-025	E1668C	**0.0187**	**0.00144**	0.000197 U
PCB-026/029	E1668C	**0.014**	**0.000493 J**	0.000248 U
PCB-027	E1668C	**0.0101**	**0.00022 J**	0.000108 U
PCB-031	E1668C	**0.0258**	**0.000649 J**	**0.000306 J**
PCB-032	E1668C	**0.0255**	**0.000601 J**	0.0000966 U
PCB-034	E1668C	**0.000645 J**	0.000196 U	0.000259 U
PCB-035	E1668C	**0.000606 J**	0.000123 U	0.000161 U
PCB-036	E1668C	0.000208 U	0.0000973 U	0.000127 U
PCB-037	E1668C	**0.00929**	**0.000264 J**	0.00015 U
PCB-038	E1668C	**0.0014 J**	**0.000235 J**	0.000177 U
PCB-039	E1668C	0.000215 U	0.000103 U	0.000134 U
PCB-040/071	E1668C	**0.275**	**0.017**	**0.000206 J**
PCB-041	E1668C	0.000144 U	**0.000337 J**	0.000219 U
PCB-042	E1668C	**0.115**	**0.00773**	0.000176 U
PCB-043	E1668C	0.000102 U	**0.000863 J**	0.000154 U
PCB-044/047/065	E1668C	**2.912**	**0.169**	**0.0012 J**
PCB-045	E1668C	**0.0783**	**0.00656**	0.00036 U
PCB-046	E1668C	**0.0133**	**0.00136**	0.000323 U
PCB-048	E1668C	0.000105 U	**0.000894 J**	0.000156 U
PCB-049/069	E1668C	**1.745**	**0.0962**	**0.000436 J**
PCB-050/053	E1668C	**0.74**	**0.0646**	0.000317 UJ

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 5/28/2024 HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	VP81-G-10/11-BST 7/29/2024 HOUS-COL-VP81-THIN-DRY1-PW-SPME-240729	VP81-G-10/11-BST 7/29/2024 HOUS-COL-VP81-AMEND-DRY1-PW-SPME-240729
PCB-051	E1668C	**0.209**	**0.0185**	**0.00012 J**
PCB-052	E1668C	**3.638 J**	**0.233**	**0.00118**
PCB-054	E1668C	**0.0677**	**0.00412**	0.0000583 U
PCB-055	E1668C	0.00451 U	0.000404 U	0.0000791 U
PCB-056	E1668C	**0.044**	**0.000883**	0.0000826 U
PCB-057	E1668C	0.00459 U	0.000385 U	0.0000752 U
PCB-058	E1668C	0.00405 U	**0.00109**	0.0000676 U
PCB-059/062/075	E1668C	**0.09**	**0.00484**	0.0000813 U
PCB-060	E1668C	0.0057 U	0.000488 U	0.0000955 U
PCB-061/070/074/076	E1668C	**0.609**	**0.0225**	**0.000353 J**
PCB-063	E1668C	0.00498 U	0.00042 U	0.0000819 U
PCB-064	E1668C	**0.159**	**0.00792**	**0.000104 J**
PCB-066	E1668C	**0.286**	**0.00359**	0.0000655 U
PCB-067	E1668C	**0.0103**	**0.000842**	0.000062 U
PCB-068	E1668C	**0.0268**	**0.000592**	0.0000611 U
PCB-072	E1668C	**0.0472**	**0.00125**	0.0000596 U
PCB-073	E1668C	**0.111**	**0.00722**	0.0000671 U
PCB-077	E1668C	**0.0164**	0.000497 U	0.000102 U
PCB-078	E1668C	0.00392 U	0.000275 U	0.000053 U
PCB-079	E1668C	**0.031**	**0.00624**	0.0000372 U
PCB-080	E1668C	0.00302 U	0.000192 U	0.0000367 U
PCB-081	E1668C	0.00361 U	0.000255 U	0.0000493 U
PCB-082	E1668C	**0.529**	**0.0213**	0.0000429 U
PCB-083	E1668C	**0.6**	**0.0314**	**0.0000189 J**
PCB-084	E1668C	**3.18 J**	**0.218**	**0.000253 J**
PCB-085/116	E1668C	**1.283**	**0.0421**	**0.0000574 J**
PCB-086/087/097/109/119/125	E1668C	**5.61**	**0.221**	0.00034 U
PCB-088	E1668C	0.111 U	0.00538 U	0.0000577 U
PCB-089	E1668C	0.0992 U	0.00515 U	0.0000554 U
PCB-090/101/113	E1668C	**15.176 J**	**0.579**	**0.000775**
PCB-091	E1668C	**3.017 J**	**0.198**	**0.000265 J**
PCB-092	E1668C	**3.737 J**	**0.171**	**0.000236**
PCB-093/100	E1668C	**0.807**	**0.0477**	0.0000597 U
PCB-094	E1668C	**0.245**	**0.0185**	0.0000546 U
PCB-095	E1668C	**21.615 J**	**1.504 J**	**0.0018**
PCB-096	E1668C	**0.4**	**0.0426**	0.0000455 U
PCB-098	E1668C	0.0782 U	0.00415 U	0.0000443 U
PCB-099	E1668C	**3.815 J**	**0.145**	**0.000227**
PCB-102	E1668C	**0.373**	**0.0246**	0.0000397 U
PCB-103	E1668C	**0.525**	**0.0315**	0.0000386 U
PCB-104	E1668C	**0.0444**	**0.00497**	0.0000426 U
PCB-105	E1668C	**0.382**	**0.00519**	**0.000018 J**
PCB-106	E1668C	0.0365 U	0.0011 U	0.0000114 U
PCB-107	E1668C	**0.109**	**0.00134**	0.00000926 U
PCB-108/124	E1668C	**0.107**	**0.00138**	0.0000107 U

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 5/28/2024 HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	VP81-G-10/11-BST 7/29/2024 HOUS-COL-VP81-THIN-DRY1-PW-SPME-240729	VP81-G-10/11-BST 7/29/2024 HOUS-COL-VP81-AMEND-DRY1-PW-SPME-240729
PCB-110	E1668C	**8.679 J**	**0.268**	**0.00039**
PCB-111	E1668C	0.031 U	0.000914 U	0.00000936 U
PCB-112	E1668C	0.0399 U	0.00142 U	0.0000149 U
PCB-114	E1668C	0.0373 U	0.00116 U	0.0000106 U
PCB-115	E1668C	0.0364 U	0.00124 U	0.000013 U
PCB-117	E1668C	**0.112**	**0.00404**	0.0000192 U
PCB-118	E1668C	**1.293 J**	**0.0111**	**0.0000459 J**
PCB-120	E1668C	**0.028**	0.00071 U	0.00000725 U
PCB-121	E1668C	0.0313 U	0.00107 U	0.000011 U
PCB-122	E1668C	0.0451 U	0.00147 U	0.0000134 U
PCB-123	E1668C	**0.0438**	0.00093 U	0.00000954 U
PCB-126	E1668C	**0.00299**	0.000105 U	**-- R**
PCB-127	E1668C	0.0263 U	0.000552 U	0.00000554 U
PCB-128/166	E1668C	**0.806**	**0.0231**	**0.0000295 J**
PCB-129/138/163	E1668C	**10.962 J**	**0.329**	**0.000461**
PCB-130	E1668C	**0.462**	**0.0155**	**0.0000201 J**
PCB-131	E1668C	**0.119**	**0.00563**	0.0000165 U
PCB-132	E1668C	**4.626 J**	**0.238**	**0.000275**
PCB-133	E1668C	**0.161**	**0.00547**	**0.00000668 J**
PCB-134	E1668C	**0.932**	**0.053**	**0.0000626 J**
PCB-135/151	E1668C	**8.676 J**	**0.475**	**0.000498**
PCB-136	E1668C	**3.922 J**	**0.262**	**0.000207**
PCB-137	E1668C	**0.168**	**0.00393**	0.0000105 U
PCB-139/140	E1668C	**0.131**	**0.00634**	0.0000122 U
PCB-141	E1668C	**2.477 J**	**0.084**	**0.000112**
PCB-142	E1668C	0.0000786 U	0.00000733 U	0.000021 U
PCB-143	E1668C	0.0000609 U	0.00000526 U	0.000015 U
PCB-144	E1668C	**0.928**	**0.0477**	**0.0000622 J**
PCB-145	E1668C	**0.0112**	0.00000915 U	0.0000274 U
PCB-146	E1668C	**1.428 J**	**0.049**	**0.0000737**
PCB-147/149	E1668C	**13.14 J**	**0.837 J**	**0.000933**
PCB-148	E1668C	**0.041**	**0.00212**	0.0000109 U
PCB-150	E1668C	**0.113**	**0.0103**	0.000025 U
PCB-152	E1668C	**0.0704**	**0.00679**	0.0000261 U
PCB-153/168	E1668C	**8.055 J**	**0.279**	**0.000371**
PCB-154	E1668C	**0.219**	**0.0112**	**0.0000162 J**
PCB-155	E1668C	**0.0029**	**0.000164 J**	0.00000759 U
PCB-156/157	E1668C	**0.194**	**0.00135**	0.00000511 UJ
PCB-158	E1668C	**0.579**	**0.0129**	**0.0000221 J**
PCB-159	E1668C	**0.0776**	**0.0034**	0.00000369 U
PCB-160	E1668C	0.0000329 U	0.00000227 U	0.00000628 U
PCB-161	E1668C	0.0000251 U	0.00000153 U	0.00000414 U
PCB-162	E1668C	**0.0115**	**0.000146**	0.00000436 U
PCB-164	E1668C	**0.539**	**0.0129**	0.0000206 U
PCB-165	E1668C	**0.0122**	0.00000183 U	0.0000050 U

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 5/28/2024 HOUS-COL-VP81-CTRL-WET1-PW-SPME-240528	VP81-G-10/11-BST 7/29/2024 HOUS-COL-VP81-THIN-DRY1-PW-SPME-240729	VP81-G-10/11-BST 7/29/2024 HOUS-COL-VP81-AMEND-DRY1-PW-SPME-240729
PCB-167	E1668C	**0.139**	**0.00107**	0.00000413 U
PCB-169	E1668C	0.000542 U	**-- R**	**-- R**
PCB-170	E1668C	**1.427 J**	**0.0285**	**0.0000404**
PCB-171/173	E1668C	**0.59**	**0.0233**	**0.0000263 J**
PCB-172	E1668C	**0.254**	**0.00606**	**0.00000711 J**
PCB-174	E1668C	**2.454 J**	**0.114**	**0.00011**
PCB-175	E1668C	**0.101**	**0.00419**	**0.00000486 J**
PCB-176	E1668C	**0.78**	**0.0663**	**0.0000507 J**
PCB-177	E1668C	**1.277 J**	**0.0546**	**0.0000556**
PCB-178	E1668C	**0.706 J**	**0.0318**	**0.0000277 J**
PCB-179	E1668C	**2.693 J**	**0.276**	**0.00021**
PCB-180/193	E1668C	**3.114 J**	**0.0668**	**0.0000865**
PCB-181	E1668C	**0.00854**	**0.000308**	0.0000052 U
PCB-182	E1668C	**0.0133**	**0.000438**	0.00000402 U
PCB-183	E1668C	**1.281 J**	**0.0483**	**0.0000565**
PCB-184	E1668C	**0.00232**	**0.000187**	0.00000674 U
PCB-185	E1668C	**0.262**	**0.0106**	**0.0000146 J**
PCB-186	E1668C	0.0000346 U	0.00000437 U	0.00000814 U
PCB-187	E1668C	**3.013 J**	**0.112**	**0.000109**
PCB-188	E1668C	**0.00898**	**0.000728**	0.00000749 U
PCB-189	E1668C	**0.0213**	**0.000123**	0.000000869 U
PCB-190	E1668C	**0.253**	**0.00353**	0.00000487 U
PCB-191	E1668C	**0.043**	**0.000864**	0.00000202 U
PCB-192	E1668C	0.000303 U	0.0000119 U	0.00000184 U
PCB-194	E1668C	**0.225**	**0.00353**	**0.00000387 J**
PCB-195	E1668C	**0.145**	**0.00424**	**0.00000551 J**
PCB-196	E1668C	**0.2**	**0.00631**	**0.00000527 J**
PCB-197	E1668C	**0.024**	**0.00155**	**0.00000245 J**
PCB-198/199	E1668C	**0.399**	**0.0141**	**0.0000158 J**
PCB-200	E1668C	**0.107**	**0.00692**	**0.00000519 J**
PCB-201	E1668C	**0.0734**	**0.00341**	**0.00000284 J**
PCB-202	E1668C	**0.133**	**0.00815**	**0.00000678 J**
PCB-203	E1668C	**0.208**	**0.00643**	**0.00000776 J**
PCB-204	E1668C	**0.0000985 J**	**0.00000825 J**	0.00000132 U
PCB-205	E1668C	**0.0104**	**0.000123**	0.000000291 U
PCB-206	E1668C	**0.03**	**0.000631**	0.000000685 U
PCB-207	E1668C	**0.00658**	**0.000322**	0.000000717 U
PCB-208	E1668C	**0.0107**	**0.00047**	0.00000074 U
PCB-209	E1668C	**0.00193**	**0.0000512**	0.000000495 U
Total PCB Congener (U = 0 max limit)	Calculated	**160 J**	**8.0 J**	**0.012 J**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 7/29/2024 HOUS-COL-VP81-MIXED-DRY1-PW-SPME-240729	VP81-G-10/11-BST 7/29/2024 HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	VP81-G-10/11-BST 8/19/2024 HOUS-COL-VP12-THIN-WET2-PW-SPME-240819
PCB Congeners (SPME) (ng/L)				
PCB-001	E1668C	0.00142 U	0.0108 UJ	0.00266 UJ
PCB-002	E1668C	0.000331 U	0.00298 UJ	0.00113 UJ
PCB-003	E1668C	0.000328 U	0.00266 UJ	0.00108 UJ
PCB-004	E1668C	0.000829 U	**0.0239 J**	**0.00674 J**
PCB-005	E1668C	0.000382 U	0.00193 UJ	0.00179 UJ
PCB-006	E1668C	0.000266 U	**0.00289 J**	0.00125 UJ
PCB-007	E1668C	0.000313 U	0.00157 UJ	0.00141 UJ
PCB-008	E1668C	0.000238 U	**0.00557 J**	0.00118 UJ
PCB-009	E1668C	0.000275 U	0.00145 UJ	0.00128 UJ
PCB-010	E1668C	0.000534 U	0.00372 UJ	0.00148 UJ
PCB-011	E1668C	0.00173 UJ	0.00453 UJ	0.0014 UJ
PCB-012/013	E1668C	0.000209 U	0.00113 UJ	0.00111 UJ
PCB-014	E1668C	0.00019 U	0.0010 UJ	0.000912 UJ
PCB-015	E1668C	0.000144 U	**0.00708 J**	**0.00101 J**
PCB-016	E1668C	0.000339 U	0.00279 UJ	**0.00173 J**
PCB-017	E1668C	**0.00122 J**	**0.031 J**	**0.0144 J**
PCB-018/030	E1668C	**0.000861 J**	**0.0175 J**	**0.00929 J**
PCB-019	E1668C	0.000452 U	**0.0132 J**	**0.00283 J**
PCB-020/028	E1668C	**0.000515 J**	**0.0264 J**	**0.00608 J**
PCB-021/033	E1668C	**0.000504 J**	**0.00696 J**	**0.00365 J**
PCB-022	E1668C	0.0000978 U	**0.00371 J**	**0.000626 J**
PCB-023	E1668C	0.000117 U	0.00225 UJ	0.000497 UJ
PCB-024	E1668C	0.000161 U	0.00146 UJ	0.000395 UJ
PCB-025	E1668C	**0.000564 J**	**0.0164 J**	**0.00524 J**
PCB-026/029	E1668C	**0.000285 J**	**0.0128 J**	**0.00561 J**
PCB-027	E1668C	**0.000264 J**	**0.00704 J**	**0.00196 J**
PCB-031	E1668C	**0.000486 J**	**0.0253 J**	**0.00625 J**
PCB-032	E1668C	**0.000612 J**	**0.019 J**	**0.00708 J**
PCB-034	E1668C	0.0000999 U	0.00199 UJ	0.000421 UJ
PCB-035	E1668C	0.0000627 U	0.00135 UJ	0.000282 UJ
PCB-036	E1668C	0.0000496 U	0.00111 UJ	0.000215 UJ
PCB-037	E1668C	**0.000133 J**	**0.00788 J**	**0.00158 J**
PCB-038	E1668C	0.0000684 U	**0.00144 J**	0.000301 UJ
PCB-039	E1668C	0.0000527 U	0.00124 UJ	0.000233 UJ
PCB-040/071	E1668C	**0.00724**	**0.278 J**	**0.0673 J**
PCB-041	E1668C	0.0000627 U	**0.00508 J**	0.000245 UJ
PCB-042	E1668C	**0.00349**	**0.139 J**	**0.0517 J**
PCB-043	E1668C	0.0000441 U	0.000473 UJ	**0.00237 J**
PCB-044/047/065	E1668C	**0.0855**	**3.375 J**	**0.426 J**
PCB-045	E1668C	**0.00426**	**0.0958 J**	**0.0177 J**
PCB-046	E1668C	0.0000918 U	**0.0152 J**	**0.00612 J**
PCB-048	E1668C	**0.000491 J**	0.000455 UJ	**0.00384 J**
PCB-049/069	E1668C	**0.0475**	**2.067 J**	**0.506 J**
PCB-050/053	E1668C	**0.0252**	**0.864 J**	**0.174 J**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 7/29/2024 HOUS-COL-VP81-MIXED-DRY1-PW-SPME-240729	VP81-G-10/11-BST 7/29/2024 HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	VP81-G-10/11-BST 8/19/2024 HOUS-COL-VP12-THIN-WET2-PW-SPME-240819
PCB-051	E1668C	**0.00699**	**0.246 J**	**0.0389 J**
PCB-052	E1668C	**0.104**	**4.076 J**	**1.934 J**
PCB-054	E1668C	**0.00238**	**0.0547 J**	**0.0102 J**
PCB-055	E1668C	0.000199 U	0.00716 UJ	0.000655 UJ
PCB-056	E1668C	**0.000733**	**0.0465 J**	**0.00647 J**
PCB-057	E1668C	0.00019 U	0.00724 UJ	0.000646 UJ
PCB-058	E1668C	**0.000492**	**0.017 J**	0.000567 UJ
PCB-059/062/075	E1668C	**0.00218**	**0.0988 J**	**0.0191 J**
PCB-060	E1668C	0.00024 U	0.00882 UJ	0.000813 UJ
PCB-061/070/074/076	E1668C	**0.013**	**0.66 J**	**0.113 J**
PCB-063	E1668C	0.000207 U	0.00804 UJ	**0.00102 J**
PCB-064	E1668C	**0.00382**	**0.178 J**	**0.0673 J**
PCB-066	E1668C	**0.00406**	**0.307 J**	**0.0485 J**
PCB-067	E1668C	**0.000267**	0.00612 UJ	**0.00126 J**
PCB-068	E1668C	**0.000558**	**0.0343 J**	**0.00261 J**
PCB-072	E1668C	**0.000915**	**0.052 J**	**0.00643 J**
PCB-073	E1668C	**0.00326**	**0.135 J**	**0.0083 J**
PCB-077	E1668C	**0.000454**	**0.0274 J**	**0.00125 J**
PCB-078	E1668C	0.000138 U	0.00587 UJ	0.000441 UJ
PCB-079	E1668C	**0.000968**	**0.0322 J**	**0.00579 J**
PCB-080	E1668C	0.0000984 U	0.00463 UJ	0.000314 UJ
PCB-081	E1668C	0.000128 U	0.00514 UJ	0.000394 UJ
PCB-082	E1668C	**0.0151**	**0.543 J**	**0.0682 J**
PCB-083	E1668C	**0.0144**	**0.715 J**	**0.0701 J**
PCB-084	E1668C	**0.118**	**3.429 J**	**0.594 J**
PCB-085/116	E1668C	**0.0368**	**1.366 J**	**0.122 J**
PCB-086/087/097/109/119/125	E1668C	**0.165**	**5.943 J**	**0.728 J**
PCB-088	E1668C	0.00422 U	0.128 UJ	0.011 UJ
PCB-089	E1668C	0.00405 U	0.118 UJ	0.00907 UJ
PCB-090/101/113	E1668C	**0.441**	**16.725 J**	**1.849 J**
PCB-091	E1668C	**0.122**	**3.633 J**	**0.371 J**
PCB-092	E1668C	**0.127**	**4.444 J**	**0.436 J**
PCB-093/100	E1668C	**0.0327**	**0.906 J**	**0.056 J**
PCB-094	E1668C	**0.01**	**0.3 J**	**0.0273 J**
PCB-095	E1668C	**0.847**	**25.786 J**	**4.03 J**
PCB-096	E1668C	**0.0181**	**0.373 J**	**0.052 J**
PCB-098	E1668C	0.00326 U	0.0978 UJ	0.00907 UJ
PCB-099	E1668C	**0.124**	**4.58 J**	**0.391 J**
PCB-102	E1668C	**0.0137**	**0.402 J**	**0.0459 J**
PCB-103	E1668C	**0.0211**	**0.658 J**	**0.069 J**
PCB-104	E1668C	**0.00228**	**0.0502 J**	**0.00415 J**
PCB-105	E1668C	**0.0069**	**0.372 J**	**0.0234 J**
PCB-106	E1668C	0.000944 U	0.040 UJ	0.00196 UJ
PCB-107	E1668C	**0.00201**	**0.115 J**	**0.00801 J**
PCB-108/124	E1668C	**0.00229**	**0.127 J**	**0.00597 J**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 7/29/2024 HOUS-COL-VP81-MIXED-DRY1-PW-SPME-240729	VP81-G-10/11-BST 7/29/2024 HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	VP81-G-10/11-BST 8/19/2024 HOUS-COL-VP12-THIN-WET2-PW-SPME-240819
PCB-110	E1668C	**0.216**	**10.078 J**	**0.887 J**
PCB-111	E1668C	0.000834 U	0.0374 UJ	0.00169 UJ
PCB-112	E1668C	0.00115 U	0.0448 UJ	0.00276 UJ
PCB-114	E1668C	0.00101 U	0.0425 UJ	0.00183 UJ
PCB-115	E1668C	0.00102 U	0.040 UJ	0.00241 UJ
PCB-117	E1668C	**0.00263**	**0.151 J**	**0.0146 J**
PCB-118	E1668C	**0.0214**	**1.546 J**	**0.0675 J**
PCB-120	E1668C	0.000662 U	0.0299 UJ	0.00128 UJ
PCB-121	E1668C	0.000918 U	0.0391 UJ	0.00198 UJ
PCB-122	E1668C	0.00128 U	0.0523 UJ	0.00259 UJ
PCB-123	E1668C	0.00084 U	**0.0458 J**	**0.00174 J**
PCB-126	E1668C	0.000104 U	0.00187 UJ	**0.00013 J**
PCB-127	E1668C	0.00065 U	0.0259 UJ	0.00102 UJ
PCB-128/166	E1668C	**0.0246**	**0.891 J**	**0.0617 J**
PCB-129/138/163	E1668C	**0.324**	**10.802 J**	**0.926 J**
PCB-130	E1668C	**0.0151**	**0.511 J**	**0.04 J**
PCB-131	E1668C	**0.00392**	**0.119 J**	**0.0153 J**
PCB-132	E1668C	**0.155**	**4.661 J**	**0.641 J**
PCB-133	E1668C	**0.00568**	**0.184 J**	**0.0135 J**
PCB-134	E1668C	**0.034**	**0.92 J**	**0.142 J**
PCB-135/151	E1668C	**0.318**	**9.278 J**	**1.051 J**
PCB-136	E1668C	**0.136**	**4.598 J**	**0.508 J**
PCB-137	E1668C	**0.00613**	**0.151 J**	**0.0143 J**
PCB-139/140	E1668C	**0.00497**	**0.146 J**	**0.0157 J**
PCB-141	E1668C	**0.0811**	**2.781 J**	**0.215 J**
PCB-142	E1668C	0.0000147 U	0.000159 UJ	0.0000658 UJ
PCB-143	E1668C	0.0000108 U	0.000141 UJ	0.0000539 UJ
PCB-144	E1668C	**0.0354**	**1.054 J**	**0.0962 J**
PCB-145	E1668C	**0.000351**	**0.00731 J**	0.000078 UJ
PCB-146	E1668C	**0.0508**	**1.583 J**	**0.108 J**
PCB-147/149	E1668C	**0.553**	**16.983 J**	**1.854 J**
PCB-148	E1668C	**0.00162**	**0.0491 J**	**0.00413 J**
PCB-150	E1668C	**0.00534**	**0.145 J**	**0.0133 J**
PCB-152	E1668C	**0.0031**	**0.0802 J**	**0.00777 J**
PCB-153/168	E1668C	**0.314**	**10.149 J**	**0.661 J**
PCB-154	E1668C	**0.00896**	**0.265 J**	**0.0217 J**
PCB-155	E1668C	**0.000129**	**0.0038 J**	**0.000123 J**
PCB-156/157	E1668C	**0.00491**	**0.21 J**	**0.00609 J**
PCB-158	E1668C	**0.0183**	**0.651 J**	**0.0376 J**
PCB-159	E1668C	**0.0048**	**0.101 J**	**0.00718 J**
PCB-160	E1668C	0.00000582 U	0.0000753 UJ	0.0000209 UJ
PCB-161	E1668C	0.00000479 U	0.0000571 UJ	0.0000136 UJ
PCB-162	E1668C	**0.000458**	**0.0141 J**	**0.000456 J**
PCB-164	E1668C	**0.0165**	**0.558 J**	**0.0381 J**
PCB-165	E1668C	**0.000426**	**0.0127 J**	0.0000164 UJ

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 7/29/2024 HOUS-COL-VP81-MIXED-DRY1-PW-SPME-240729	VP81-G-10/11-BST 7/29/2024 HOUS-COL-VP81-CTRL-DRY1-PW-SPME-240729	VP81-G-10/11-BST 8/19/2024 HOUS-COL-VP12-THIN-WET2-PW-SPME-240819
PCB-167	E1668C	**0.00454**	**0.162 J**	**0.003 J**
PCB-169	E1668C	**-- R**	0.0217 UJ	**0.000859 J**
PCB-170	E1668C	**0.0725**	**1.73 J**	**0.0675 J**
PCB-171/173	E1668C	**0.0313**	**0.814 J**	**0.0474 J**
PCB-172	E1668C	**0.0165**	**0.346 J**	**0.0131 J**
PCB-174	E1668C	**0.127**	**3.335 J**	**0.218 J**
PCB-175	E1668C	**0.00635**	**0.143 J**	**0.00673 J**
PCB-176	E1668C	**0.04**	**0.908 J**	**0.0829 J**
PCB-177	E1668C	**0.0674**	**1.77 J**	**0.111 J**
PCB-178	E1668C	**0.0362**	**0.867 J**	**0.048 J**
PCB-179	E1668C	**0.151**	**3.182 J**	**0.314 J**
PCB-180/193	E1668C	**0.197**	**4.17 J**	**0.147 J**
PCB-181	E1668C	**0.000455**	0.000861 UJ	**0.000678 J**
PCB-182	E1668C	**0.000603**	**0.0109 J**	**0.000513 J**
PCB-183	E1668C	**0.0733**	**1.806 J**	**0.0804 J**
PCB-184	E1668C	**0.000113 J**	**0.00228 J**	**0.000206 J**
PCB-185	E1668C	**0.0193**	**0.426 J**	**0.0263 J**
PCB-186	E1668C	0.00000662 U	0.000106 UJ	0.0000224 UJ
PCB-187	E1668C	**0.158**	**3.779 J**	**0.202 J**
PCB-188	E1668C	**0.000515**	**0.0129 J**	**0.000588 J**
PCB-189	E1668C	**0.00213**	**0.0281 J**	**0.00043 J**
PCB-190	E1668C	**0.0165**	**0.309 J**	**0.00848 J**
PCB-191	E1668C	**0.00441**	**0.0601 J**	**0.00184 J**
PCB-192	E1668C	0.0000608 U	0.000479 UJ	0.0000221 UJ
PCB-194	E1668C	**0.046**	**0.333 J**	**0.00748 J**
PCB-195	E1668C	**0.0211**	**0.221 J**	**0.00766 J**
PCB-196	E1668C	**0.0389**	**0.312 J**	**0.00975 J**
PCB-197	E1668C	**0.00296**	**0.0384 J**	**0.00217 J**
PCB-198/199	E1668C	**0.0689**	**0.617 J**	**0.0231 J**
PCB-200	E1668C	**0.0103**	**0.168 J**	**0.0106 J**
PCB-201	E1668C	**0.0139**	**0.115 J**	**0.00455 J**
PCB-202	E1668C	**0.0137**	**0.204 J**	**0.0101 J**
PCB-203	E1668C	**0.0428**	**0.34 J**	**0.0109 J**
PCB-204	E1668C	0.0000125 U	0.000131 UJ	**0.0000118 J**
PCB-205	E1668C	**0.00316**	**0.0151 J**	**0.000291 J**
PCB-206	E1668C	**0.0181**	**0.0476 J**	**0.00101 J**
PCB-207	E1668C	**0.00232**	**0.0126 J**	**0.000476 J**
PCB-208	E1668C	**0.00288**	**0.0178 J**	**0.000683 J**
PCB-209	E1668C	**0.000783**	**0.00202 J**	**0.00008 J**
Total PCB Congener (U = 0 max limit)	Calculated	**6.1 J**	**190 J**	**21 J**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 8/19/2024 HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	VP81-G-10/11-BST 8/19/2024 HOUS-COL-VP12-MIXED-WET2-PW-SPME-240819	VP81-G-10/11-BST 8/19/2024 HOUS-COL-VP12-CTRL-WET2-PW-SPME-240819
PCB Congeners (SPME) (ng/L)				
PCB-001	E1668C	0.00339 UJ	0.00281 UJ	**0.0136 J**
PCB-002	E1668C	0.00151 UJ	0.00107 UJ	0.00132 UJ
PCB-003	E1668C	0.00144 UJ	0.00102 UJ	0.00125 UJ
PCB-004	E1668C	0.00155 UJ	0.00204 UJ	**0.0604 J**
PCB-005	E1668C	0.00162 UJ	0.0013 UJ	0.00145 UJ
PCB-006	E1668C	0.00112 UJ	0.000896 UJ	**0.00559 J**
PCB-007	E1668C	0.00126 UJ	0.00101 UJ	0.00118 UJ
PCB-008	E1668C	0.00107 UJ	0.000852 UJ	**0.0167 J**
PCB-009	E1668C	0.00116 UJ	0.000925 UJ	0.00108 UJ
PCB-010	E1668C	0.00124 UJ	0.00164 UJ	**0.00266 J**
PCB-011	E1668C	0.00185 UJ	0.00145 UJ	0.00387 UJ
PCB-012/013	E1668C	0.000987 UJ	0.000791 UJ	**0.0032 J**
PCB-014	E1668C	0.000817 UJ	0.000654 UJ	0.000862 UJ
PCB-015	E1668C	0.000645 UJ	0.000516 UJ	**0.0232 J**
PCB-016	E1668C	0.000927 UJ	0.000835 UJ	**0.0125 J**
PCB-017	E1668C	0.000749 UJ	0.000673 UJ	**0.148 J**
PCB-018/030	E1668C	0.000534 UJ	0.000481 UJ	**0.0731 J**
PCB-019	E1668C	0.00102 UJ	0.000916 UJ	**0.0175 J**
PCB-020/028	E1668C	0.000456 UJ	0.000388 UJ	**0.131 J**
PCB-021/033	E1668C	0.000586 UJ	0.000501 UJ	**0.0541 J**
PCB-022	E1668C	0.000424 UJ	0.000361 UJ	**0.0105 J**
PCB-023	E1668C	0.000501 UJ	0.000425 UJ	0.00107 UJ
PCB-024	E1668C	0.000415 UJ	0.000373 UJ	**0.00101 J**
PCB-025	E1668C	0.000335 UJ	0.000285 UJ	**0.0493 J**
PCB-026/029	E1668C	0.000407 UJ	0.000348 UJ	**0.0903 J**
PCB-027	E1668C	0.000359 UJ	0.000324 UJ	**0.0251 J**
PCB-031	E1668C	0.000346 UJ	0.000295 UJ	**0.115 J**
PCB-032	E1668C	0.000328 UJ	0.000296 UJ	**0.107 J**
PCB-034	E1668C	0.000422 UJ	0.000359 UJ	**0.00461 J**
PCB-035	E1668C	0.000281 UJ	0.00024 UJ	**0.00189 J**
PCB-036	E1668C	0.000214 UJ	0.000183 UJ	0.000613 UJ
PCB-037	E1668C	0.000228 UJ	0.000195 UJ	**0.0334 J**
PCB-038	E1668C	0.00030 UJ	0.000256 UJ	**0.00467 J**
PCB-039	E1668C	0.000231 UJ	0.000198 UJ	0.000666 UJ
PCB-040/071	E1668C	0.000283 UJ	**0.00277 J**	**0.726 J**
PCB-041	E1668C	0.000442 UJ	0.000233 UJ	0.000371 UJ
PCB-042	E1668C	0.000369 UJ	**0.00222 J**	**0.533 J**
PCB-043	E1668C	0.000337 UJ	0.000177 UJ	0.000297 UJ
PCB-044/047/065	E1668C	0.00042 UJ	**0.0183 J**	**4.838 J**
PCB-045	E1668C	0.000559 UJ	**0.000448 J**	**0.122 J**
PCB-046	E1668C	0.000647 UJ	0.00034 UJ	**0.0558 J**
PCB-048	E1668C	0.00032 UJ	0.000168 UJ	**0.0301 J**
PCB-049/069	E1668C	0.000507 UJ	**0.0219 J**	**6.798 J**
PCB-050/053	E1668C	0.00043 UJ	**0.00689 J**	**1.4 J**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 8/19/2024 HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	VP81-G-10/11-BST 8/19/2024 HOUS-COL-VP12-MIXED-WET2-PW-SPME-240819	VP81-G-10/11-BST 8/19/2024 HOUS-COL-VP12-CTRL-WET2-PW-SPME-240819
PCB-051	E1668C	0.000473 UJ	**0.00117 J**	**0.383 J**
PCB-052	E1668C	0.00182 UJ	**0.0755 J**	**18.391 J**
PCB-054	E1668C	0.000212 UJ	**0.000392 J**	**0.0637 J**
PCB-055	E1668C	0.000198 UJ	0.000187 UJ	0.00506 UJ
PCB-056	E1668C	0.000205 UJ	**0.000418 J**	**0.16 J**
PCB-057	E1668C	0.000193 UJ	0.000184 UJ	0.00528 UJ
PCB-058	E1668C	0.00017 UJ	0.000163 UJ	0.00465 UJ
PCB-059/062/075	E1668C	0.000169 UJ	**0.00089 J**	**0.24 J**
PCB-060	E1668C	0.000245 UJ	0.000231 UJ	**0.0298 J**
PCB-061/070/074/076	E1668C	0.000262 UJ	**0.00663 J**	**2.452 J**
PCB-063	E1668C	0.000205 UJ	0.000195 UJ	**0.0303 J**
PCB-064	E1668C	0.000163 UJ	**0.00299 J**	**0.854 J**
PCB-066	E1668C	0.000167 UJ	**0.00255 J**	**1.211 J**
PCB-067	E1668C	0.00016 UJ	0.000153 UJ	**0.0209 J**
PCB-068	E1668C	0.000158 UJ	**0.000283 J**	**0.0786 J**
PCB-072	E1668C	0.000153 UJ	**0.000413 J**	**0.153 J**
PCB-073	E1668C	0.000129 UJ	**0.000429 J**	**0.1 J**
PCB-077	E1668C	0.000165 UJ	**0.000222 J**	**0.0684 J**
PCB-078	E1668C	0.000131 UJ	0.000129 UJ	0.00442 UJ
PCB-079	E1668C	0.0000934 UJ	**0.000358 J**	**0.0911 J**
PCB-080	E1668C	0.0000916 UJ	0.0000967 UJ	0.0037 UJ
PCB-081	E1668C	0.000116 UJ	0.000116 UJ	0.00401 UJ
PCB-082	E1668C	0.00013 UJ	**0.00487 J**	**1.132 J**
PCB-083	E1668C	0.000145 UJ	**0.00507 J**	**0.615 J**
PCB-084	E1668C	0.000246 UJ	**0.0326 J**	**5.664 J**
PCB-085/116	E1668C	0.000103 UJ	**0.00974 J**	**2.453 J**
PCB-086/087/097/109/119/125	E1668C	0.000471 UJ	**0.0515 J**	**12.514 J**
PCB-088	E1668C	0.000202 UJ	0.000957 UJ	0.163 UJ
PCB-089	E1668C	0.000166 UJ	0.000791 UJ	0.135 UJ
PCB-090/101/113	E1668C	0.000854 UJ	**0.123 J**	**32.545 J**
PCB-091	E1668C	0.000131 UJ	**0.023 J**	**4.727 J**
PCB-092	E1668C	0.000181 UJ	**0.031 J**	**7.849 J**
PCB-093/100	E1668C	0.000197 UJ	**0.0038 J**	**0.683 J**
PCB-094	E1668C	0.00018 UJ	**0.0016 J**	**0.304 J**
PCB-095	E1668C	0.0018 UJ	**0.208 J**	**41.189 J**
PCB-096	E1668C	0.000192 UJ	**0.00287 J**	**0.314 J**
PCB-098	E1668C	0.000166 UJ	0.000792 UJ	0.144 UJ
PCB-099	E1668C	0.000206 UJ	**0.0288 J**	**8.371 J**
PCB-102	E1668C	0.00011 UJ	**0.00282 J**	**0.496 J**
PCB-103	E1668C	0.000123 UJ	**0.00463 J**	**0.909 J**
PCB-104	E1668C	0.000145 UJ	**0.000213 J**	**0.0319 J**
PCB-105	E1668C	0.0000307 UJ	**0.00332 J**	**1.315 J**
PCB-106	E1668C	0.0000342 UJ	0.000207 UJ	0.0565 UJ
PCB-107	E1668C	0.0000273 UJ	**0.00115 J**	**0.42 J**
PCB-108/124	E1668C	0.000031 UJ	**0.000888 J**	**0.298 J**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 8/19/2024 HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	VP81-G-10/11-BST 8/19/2024 HOUS-COL-VP12-MIXED-WET2-PW-SPME-240819	VP81-G-10/11-BST 8/19/2024 HOUS-COL-VP12-CTRL-WET2-PW-SPME-240819
PCB-110	E1668C	0.00045 UJ	**0.066 J**	**21.365 J**
PCB-111	E1668C	0.0000292 UJ	0.000208 UJ	0.0567 UJ
PCB-112	E1668C	0.0000493 UJ	0.000257 UJ	0.0634 UJ
PCB-114	E1668C	0.0000326 UJ	0.000193 UJ	0.0518 UJ
PCB-115	E1668C	0.0000429 UJ	0.000228 UJ	0.058 UJ
PCB-117	E1668C	0.0000601 UJ	**0.00123 J**	**0.358 J**
PCB-118	E1668C	0.0000816 UJ	**0.0111 J**	**4.847 J**
PCB-120	E1668C	0.000022 UJ	**0.000227 J**	**0.0588 J**
PCB-121	E1668C	0.0000347 UJ	0.00021 UJ	0.0574 UJ
PCB-122	E1668C	0.0000461 UJ	0.00027 UJ	0.0724 UJ
PCB-123	E1668C	0.0000258 UJ	**0.000279 J**	**0.0927 J**
PCB-126	E1668C	0.0000371 UJ	**0.0000592 J**	**0.0153 J**
PCB-127	E1668C	0.0000182 UJ	0.000191 UJ	0.0442 UJ
PCB-128/166	E1668C	0.0000258 UJ	**0.0141 J**	**2.179 J**
PCB-129/138/163	E1668C	0.000421 UJ	**0.141 J**	**26.87 J**
PCB-130	E1668C	0.0000421 UJ	**0.00727 J**	**1.408 J**
PCB-131	E1668C	0.0000614 UJ	**0.00167 J**	**0.3 J**
PCB-132	E1668C	0.000202 UJ	**0.0609 J**	**12.24 J**
PCB-133	E1668C	0.0000293 UJ	**0.00269 J**	**0.463 J**
PCB-134	E1668C	0.0000832 UJ	**0.0141 J**	**2.643 J**
PCB-135/151	E1668C	0.000354 UJ	**0.105 J**	**21.462 J**
PCB-136	E1668C	0.00018 UJ	**0.0438 J**	**7.491 J**
PCB-137	E1668C	0.0000344 UJ	**0.00287 J**	**0.454 J**
PCB-139/140	E1668C	0.0000437 UJ	**0.00198 J**	**0.361 J**
PCB-141	E1668C	0.000104 UJ	**0.0365 J**	**7.519 J**
PCB-142	E1668C	0.000073 UJ	0.0000671 UJ	0.00032 UJ
PCB-143	E1668C	0.0000589 UJ	0.0000582 UJ	0.000292 UJ
PCB-144	E1668C	0.0000468 UJ	**0.0112 J**	**2.289 J**
PCB-145	E1668C	0.0000938 UJ	0.000075 UJ	**0.0105 J**
PCB-146	E1668C	0.0000433 UJ	**0.022 J**	**4.126 J**
PCB-147/149	E1668C	0.000632 UJ	**0.194 J**	**31.445 J**
PCB-148	E1668C	0.0000409 UJ	**0.000502 J**	**0.101 J**
PCB-150	E1668C	0.000088 UJ	**0.00107 J**	**0.143 J**
PCB-152	E1668C	0.0000944 UJ	**0.000538 J**	**0.0677 J**
PCB-153/168	E1668C	0.000256 UJ	**0.141 J**	**22.125 J**
PCB-154	E1668C	0.0000356 UJ	**0.00309 J**	**0.569 J**
PCB-155	E1668C	0.0000199 UJ	0.0000301 UJ	**0.0029 J**
PCB-156/157	E1668C	0.0000185 UJ	**0.00498 J**	**0.657 J**
PCB-158	E1668C	0.0000233 UJ	**0.0118 J**	**1.989 J**
PCB-159	E1668C	0.00000999 UJ	**0.00459 J**	**0.249 J**
PCB-160	E1668C	0.0000219 UJ	0.0000378 UJ	0.000171 UJ
PCB-161	E1668C	0.000014 UJ	0.0000367 UJ	0.000134 UJ
PCB-162	E1668C	0.000012 UJ	**0.000336 J**	**0.0345 J**
PCB-164	E1668C	0.0000162 UJ	**0.011 J**	**1.865 J**
PCB-165	E1668C	0.0000169 UJ	**0.000268 J**	**0.0431 J**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 8/19/2024 HOUS-COL-VP12-AMEND-WET2-PW-SPME-240819	VP81-G-10/11-BST 8/19/2024 HOUS-COL-VP12-MIXED-WET2-PW-SPME-240819	VP81-G-10/11-BST 8/19/2024 HOUS-COL-VP12-CTRL-WET2-PW-SPME-240819
PCB-167	E1668C	0.00000965 UJ	**0.00342 J**	**0.337 J**
PCB-169	E1668C	0.0000311 UJ	**0.000377 J**	**0.0311 J**
PCB-170	E1668C	0.0000337 UJ	**0.0669 J**	**3.814 J**
PCB-171/173	E1668C	0.0000183 UJ	**0.0217 J**	**1.726 J**
PCB-172	E1668C	0.0000111 UJ	**0.0156 J**	**0.781 J**
PCB-174	E1668C	0.0000528 UJ	**0.0869 J**	**7.063 J**
PCB-175	E1668C	0.0000156 UJ	**0.00359 J**	**0.259 J**
PCB-176	E1668C	0.0000291 UJ	**0.013 J**	**1.287 J**
PCB-177	E1668C	0.0000206 UJ	**0.0434 J**	**3.736 J**
PCB-178	E1668C	0.0000168 UJ	**0.0231 J**	**1.64 J**
PCB-179	E1668C	0.000079 UJ	**0.044 J**	**4.768 J**
PCB-180/193	E1668C	0.0000517 UJ	**0.189 J**	**8.921 J**
PCB-181	E1668C	0.0000157 UJ	**0.000339 J**	**0.0263 J**
PCB-182	E1668C	0.0000121 UJ	0.0000959 UJ	0.000968 UJ
PCB-183	E1668C	0.0000283 UJ	**0.046 J**	**3.287 J**
PCB-184	E1668C	0.0000228 UJ	0.0000265 UJ	**0.00351 J**
PCB-185	E1668C	0.0000186 UJ	**0.0122 J**	**1.037 J**
PCB-186	E1668C	0.0000281 UJ	0.0000249 UJ	0.000133 UJ
PCB-187	E1668C	0.0000419 UJ	**0.0981 J**	**7.338 J**
PCB-188	E1668C	0.0000211 UJ	**0.0000895 J**	**0.0112 J**
PCB-189	E1668C	0.00000385 UJ	**0.0038 J**	**0.0713 J**
PCB-190	E1668C	0.00000599 UJ	**0.0191 J**	**0.725 J**
PCB-191	E1668C	0.00000572 UJ	**0.00493 J**	**0.146 J**
PCB-192	E1668C	0.00000532 UJ	0.00014 UJ	0.000677 UJ
PCB-194	E1668C	0.00000262 UJ	**0.084 J**	**0.804 J**
PCB-195	E1668C	0.00000418 UJ	**0.0285 J**	**0.472 J**
PCB-196	E1668C	0.00000238 UJ	**0.047 J**	**0.623 J**
PCB-197	E1668C	0.00000342 UJ	**0.0025 J**	**0.0655 J**
PCB-198/199	E1668C	0.00000567 UJ	**0.0908 J**	**1.381 J**
PCB-200	E1668C	0.00000397 UJ	**0.00971 J**	**0.31 J**
PCB-201	E1668C	0.00000192 UJ	**0.0151 J**	**0.204 J**
PCB-202	E1668C	0.00000279 UJ	**0.0109 J**	**0.321 J**
PCB-203	E1668C	0.00000201 UJ	**0.0539 J**	**0.767 J**
PCB-204	E1668C	0.00000327 UJ	0.0000199 UJ	**0.000335 J**
PCB-205	E1668C	0.00000146 UJ	**0.00727 J**	**0.0416 J**
PCB-206	E1668C	0.00000459 UJ	**0.0422 J**	**0.106 J**
PCB-207	E1668C	0.00000521 UJ	**0.00389 J**	**0.023 J**
PCB-208	E1668C	0.00000461 UJ	**0.00466 J**	**0.0319 J**
PCB-209	E1668C	0.00000116 UJ	**0.00147 J**	**0.00424 J**
Total PCB Congener (U = 0 max limit)	Calculated	0.00339 UJ	**2.7 J**	**390 J**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 10/1/2024 HOUS-COL-VP81-THIN-WET2-PW-SPME-241001	VP81-G-10/11-BST 10/1/2024 HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	VP81-G-10/11-BST 10/1/2024 HOUS-COL-VP81-MIXED-WET2-PW-SPME-241001
PCB Congeners (SPME) (ng/L)				
PCB-001	E1668C	0.00178 UJ	0.0154 U	**0.0345**
PCB-002	E1668C	0.000461 U	0.00122 UJ	0.000998 U
PCB-003	E1668C	0.000451 U	0.00317 U	**0.00539**
PCB-004	E1668C	0.00924 U	0.0805 U	0.0526 U
PCB-005	E1668C	0.000623 U	0.00133 U	0.000807 U
PCB-006	E1668C	0.00314 U	0.0429 U	0.0114 U
PCB-007	E1668C	0.000471 U	0.0010 U	0.000608 U
PCB-008	E1668C	0.00252 U	0.025 U	0.013 U
PCB-009	E1668C	0.000462 U	0.00113 U	0.000671 U
PCB-010	E1668C	0.00159 U	0.0045 U	**0.00686 J**
PCB-011	E1668C	0.00127 U	0.00269 U	**0.005**
PCB-012/013	E1668C	0.000378 U	0.00289 UJ	**0.00405**
PCB-014	E1668C	0.000326 U	0.000692 U	0.00042 U
PCB-015	E1668C	0.00114 U	**0.00919**	**0.0261**
PCB-016	E1668C	0.0019 U	0.0125 U	0.00604 U
PCB-017	E1668C	0.00626 U	0.0337 U	**0.0555**
PCB-018/030	E1668C	0.00644 U	0.0454 U	0.0353 U
PCB-019	E1668C	0.0038 U	0.0231 U	**0.0519**
PCB-020/028	E1668C	0.00403 U	0.0286 U	0.0247 U
PCB-021/033	E1668C	0.00256 U	0.0038 U	0.00204 U
PCB-022	E1668C	0.000929 U	0.00434 U	0.00402 U
PCB-023	E1668C	0.000283 U	0.000992 U	0.000558 U
PCB-024	E1668C	0.000119 U	**0.000633 J**	**0.0014**
PCB-025	E1668C	0.00405 U	0.00773 U	0.00553 U
PCB-026/029	E1668C	0.00159 U	0.0149 U	0.0101 U
PCB-027	E1668C	0.000954 UJ	**0.00436**	**0.0116**
PCB-031	E1668C	0.00334 U	0.0164 U	0.00809 U
PCB-032	E1668C	0.0032 U	0.0148 U	**0.0318**
PCB-034	E1668C	0.00028 U	0.000977 U	0.000551 U
PCB-035	E1668C	0.00022 U	0.000765 U	0.000429 U
PCB-036	E1668C	0.000148 U	0.000513 U	**0.00114**
PCB-037	E1668C	0.000183 U	0.000636 U	**0.000702**
PCB-038	E1668C	0.00021 U	0.00073 U	0.000412 U
PCB-039	E1668C	0.000157 U	0.000545 U	0.000308 U
PCB-040/071	E1668C	**0.0253**	0.00282 U	**0.00599**
PCB-041	E1668C	0.0000724 U	0.000201 U	0.000367 U
PCB-042	E1668C	0.0126 U	0.00206 U	**0.00365**
PCB-043	E1668C	0.0000445 U	0.000466 U	**0.00129**
PCB-044/047/065	E1668C	**0.276**	0.00782 U	**0.0443**
PCB-045	E1668C	**0.013**	0.00292 U	0.00391 U
PCB-046	E1668C	**0.00249**	0.00137 U	0.00126 U
PCB-048	E1668C	0.0000443 U	0.000635 U	0.00102 U
PCB-049/069	E1668C	**0.157**	0.00374 U	**0.0235**
PCB-050/053	E1668C	**0.115**	0.00341 U	**0.014**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 10/1/2024 HOUS-COL-VP81-THIN-WET2-PW-SPME-241001	VP81-G-10/11-BST 10/1/2024 HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	VP81-G-10/11-BST 10/1/2024 HOUS-COL-VP81-MIXED-WET2-PW-SPME-241001
PCB-051	E1668C	**0.0283**	0.00113 U	**0.00442**
PCB-052	E1668C	**0.396**	0.00777 U	**0.0538**
PCB-054	E1668C	**0.00924**	**0.000175 J**	**0.00166**
PCB-055	E1668C	0.00145 U	0.0000461 U	0.000264 U
PCB-056	E1668C	0.00167 U	0.000192 U	**0.000505**
PCB-057	E1668C	0.00154 U	0.000049 U	0.000282 U
PCB-058	E1668C	0.00139 U	0.0000441 U	0.000254 U
PCB-059/062/075	E1668C	**0.00826**	0.000509 U	**0.0018**
PCB-060	E1668C	0.00181 U	0.0000959 U	0.000331 U
PCB-061/070/074/076	E1668C	**0.0376**	0.00153 U	**0.00756**
PCB-063	E1668C	0.00159 U	**0.0000775 J**	0.00029 U
PCB-064	E1668C	**0.0129**	0.00173 U	**0.00345**
PCB-066	E1668C	**0.0102**	0.000566 U	**0.00224**
PCB-067	E1668C	0.00114 U	0.0000363 U	0.000209 U
PCB-068	E1668C	0.00121 U	0.0000381 U	0.000222 U
PCB-072	E1668C	**0.00186**	0.000038 U	**0.000392**
PCB-073	E1668C	**0.0136**	**0.0000864 J**	**0.00171**
PCB-077	E1668C	0.00171 U	0.000067 U	0.00031 U
PCB-078	E1668C	0.00109 U	0.0000344 U	0.000203 U
PCB-079	E1668C	**0.00342**	0.0000243 U	**0.00063**
PCB-080	E1668C	0.000763 U	0.0000237 U	0.000146 U
PCB-081	E1668C	0.00116 U	0.0000364 U	0.000216 U
PCB-082	E1668C	**0.0405**	**0.0000851 J**	**0.0106**
PCB-083	E1668C	**0.0448**	**0.0000576 J**	**0.00983**
PCB-084	E1668C	**0.361**	0.000469 U	**0.0587**
PCB-085/116	E1668C	**0.0735**	**0.000103 J**	**0.0179**
PCB-086/087/097/109/119/125	E1668C	**0.387**	0.000456 U	**0.0858**
PCB-088	E1668C	0.00901 U	0.0000673 U	0.00203 U
PCB-089	E1668C	0.00836 U	0.0000624 U	0.00188 U
PCB-090/101/113	E1668C	**0.979**	**0.00105**	**0.215**
PCB-091	E1668C	**0.304**	**0.000341**	**0.053**
PCB-092	E1668C	**0.286**	**0.000271**	**0.061**
PCB-093/100	E1668C	**0.0887**	0.0000676 U	**0.0174**
PCB-094	E1668C	**0.0287**	0.0000643 U	**0.0042**
PCB-095	E1668C	**2.403 J**	0.00235 U	**0.385**
PCB-096	E1668C	**0.0682**	0.000106 U	**0.0099**
PCB-098	E1668C	0.00622 U	0.0000464 U	0.00141 U
PCB-099	E1668C	**0.249**	0.000312 U	**0.0585**
PCB-102	E1668C	**0.0413**	0.0000447 U	**0.00715**
PCB-103	E1668C	**0.0485**	0.0000453 U	**0.00807**
PCB-104	E1668C	**0.00596**	0.0000822 U	**0.000929**
PCB-105	E1668C	**0.0119**	**0.0000306 J**	**0.00455**
PCB-106	E1668C	0.00171 U	0.0000123 U	0.000437 U
PCB-107	E1668C	**0.00301**	0.0000116 U	**0.00124**
PCB-108/124	E1668C	**0.00325**	0.0000123 U	**0.00144**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 10/1/2024 HOUS-COL-VP81-THIN-WET2-PW-SPME-241001	VP81-G-10/11-BST 10/1/2024 HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	VP81-G-10/11-BST 10/1/2024 HOUS-COL-VP81-MIXED-WET2-PW-SPME-241001
PCB-110	E1668C	**0.503**	**0.00067**	**0.123**
PCB-111	E1668C	0.00145 U	0.0000103 U	0.000411 U
PCB-112	E1668C	0.00229 U	0.0000167 U	0.000539 U
PCB-114	E1668C	0.00193 U	0.0000135 U	0.000499 U
PCB-115	E1668C	0.00195 U	0.0000142 U	0.000465 U
PCB-117	E1668C	**0.00596**	0.0000214 U	**0.00156**
PCB-118	E1668C	**0.0292**	0.0000899 U	**0.0137**
PCB-120	E1668C	0.0012 U	0.00000848 U	0.000353 U
PCB-121	E1668C	0.00177 U	0.0000127 U	0.000452 U
PCB-122	E1668C	0.00258 U	0.0000181 U	0.00066 U
PCB-123	E1668C	0.00161 U	0.0000115 U	**0.000634**
PCB-126	E1668C	0.000040 U	0.0000138 U	0.0000312 U
PCB-127	E1668C	0.00109 U	0.00000772 U	0.000393 U
PCB-128/166	E1668C	**0.0408**	**0.0000414 J**	**0.0181**
PCB-129/138/163	E1668C	**0.655**	**0.000709**	**0.237**
PCB-130	E1668C	**0.0294**	**0.0000385 J**	**0.0116**
PCB-131	E1668C	**0.0107**	0.0000235 U	**0.00277**
PCB-132	E1668C	**0.427**	**0.000367**	**0.101**
PCB-133	E1668C	**0.0104**	0.0000115 U	**0.00398**
PCB-134	E1668C	**0.0943**	**0.0000877 J**	**0.0223**
PCB-135/151	E1668C	**0.745**	**0.000604**	**0.173**
PCB-136	E1668C	**0.39 J**	**0.000223**	**0.0788**
PCB-137	E1668C	**0.01**	0.0000149 U	**0.00377**
PCB-139/140	E1668C	**0.0108**	0.0000165 U	**0.00313**
PCB-141	E1668C	**0.144**	**0.000144**	**0.0564**
PCB-142	E1668C	0.000013 U	0.0000269 U	**0.000481**
PCB-143	E1668C	0.00000983 U	0.0000202 U	0.0000135 U
PCB-144	E1668C	**0.0734**	**0.0000594 J**	**0.0196**
PCB-145	E1668C	**0.00216**	0.0000322 U	**0.000643**
PCB-146	E1668C	**0.0855**	**0.0000824**	**0.036**
PCB-147/149	E1668C	**1.337 J**	**0.00102**	**0.328**
PCB-148	E1668C	**0.00312**	0.000015 U	**0.000806**
PCB-150	E1668C	**0.0136**	0.0000293 U	**0.00238**
PCB-152	E1668C	**0.00932**	0.000032 U	**0.00149**
PCB-153/168	E1668C	**0.484 J**	**0.000451**	**0.218**
PCB-154	E1668C	**0.0174**	**0.0000176 J**	**0.00536**
PCB-155	E1668C	**0.000168**	0.00000785 U	**0.0000613 J**
PCB-156/157	E1668C	**0.0036**	0.00000779 U	**0.00552**
PCB-158	E1668C	**0.0252**	**0.0000323 J**	**0.0159**
PCB-159	E1668C	**0.00542**	0.00000403 U	**0.00457**
PCB-160	E1668C	0.00000402 U	0.00000794 U	0.00000797 U
PCB-161	E1668C	0.00000268 U	0.0000052 U	0.00000737 U
PCB-162	E1668C	**0.000307**	0.00000448 U	**0.000365**
PCB-164	E1668C	**0.024**	**0.0000206 J**	**0.0142**
PCB-165	E1668C	**0.000614**	0.00000663 U	**0.000404**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 10/1/2024 HOUS-COL-VP81-THIN-WET2-PW-SPME-241001	VP81-G-10/11-BST 10/1/2024 HOUS-COL-VP81-AMEND-WET2-PW-SPME-241001	VP81-G-10/11-BST 10/1/2024 HOUS-COL-VP81-MIXED-WET2-PW-SPME-241001
PCB-167	E1668C	**0.00263**	0.00000461 U	**0.00502**
PCB-169	E1668C	**0.00258 J**	0.0000134 U	0.0000386 U
PCB-170	E1668C	**0.0519**	**0.0000577**	**0.0762**
PCB-171/173	E1668C	**0.0343**	**0.0000271 J**	**0.0244**
PCB-172	E1668C	**0.0104**	**0.00000865 J**	**0.017**
PCB-174	E1668C	**0.157 J**	**0.000113**	**0.0977**
PCB-175	E1668C	**0.00627**	0.00000849 U	**0.00434**
PCB-176	E1668C	**0.0716**	**0.0000396 J**	**0.0196**
PCB-177	E1668C	**0.083**	**0.0000642**	**0.0507**
PCB-178	E1668C	**0.0408**	**0.0000263 J**	**0.0281**
PCB-179	E1668C	**0.27**	**0.00014**	**0.066**
PCB-180/193	E1668C	**0.115**	**0.000113**	**0.213**
PCB-181	E1668C	**0.000539**	0.00000837 U	**0.000495**
PCB-182	E1668C	**0.000815**	0.00000627 U	**0.000977**
PCB-183	E1668C	**0.0681**	**0.0000525**	**0.0601**
PCB-184	E1668C	0.00000533 U	0.00000656 U	0.00000576 U
PCB-185	E1668C	**0.0206**	**0.000018 J**	**0.0123**
PCB-186	E1668C	0.00000649 U	0.00000814 U	0.00000586 U
PCB-187	E1668C	**0.159 J**	**0.000111**	**0.117**
PCB-188	E1668C	**0.000623**	0.00000692 U	**0.000209**
PCB-189	E1668C	**0.000332**	0.00000151 U	**0.00394**
PCB-190	E1668C	**0.00669**	**0.00000706 J**	**0.0202**
PCB-191	E1668C	**0.00139**	0.00000301 U	**0.00536**
PCB-192	E1668C	0.0000154 U	0.00000283 U	0.0000876 U
PCB-194	E1668C	**0.00608**	**0.00000682 J**	**0.0733**
PCB-195	E1668C	**0.0062**	**0.00000493 J**	**0.025**
PCB-196	E1668C	**0.00875**	**0.00000666 J**	**0.044**
PCB-197	E1668C	**0.00173**	0.00000174 U	**0.00214**
PCB-198/199	E1668C	**0.0197**	**0.0000128 J**	**0.0819**
PCB-200	E1668C	**0.00834**	**0.00000326 J**	**0.00814**
PCB-201	E1668C	**0.00398**	**0.00000144 J**	**0.0133**
PCB-202	E1668C	**0.0091**	**0.00000493 J**	**0.0104**
PCB-203	E1668C	**0.00861**	**0.00000678 J**	**0.046**
PCB-204	E1668C	0.00000707 U	0.00000166 U	**0.0000308 J**
PCB-205	E1668C	**0.000239**	0.000000584 U	**0.00621**
PCB-206	E1668C	**0.000847**	**0.00000118 J**	**0.0297**
PCB-207	E1668C	**0.000367**	0.00000131 U	**0.00272**
PCB-208	E1668C	**0.000538**	0.00000134 U	**0.00327**
PCB-209	E1668C	**0.0000505**	0.000000735 U	**0.00098**
Total PCB Congener (U = 0 max limit)	Calculated	**13 J**	**0.022 J**	**4.1 J**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 10/1/2024 HOUS-COL-VP81-CTRL-WET2-PW-SPME-241001
PCB Congeners (SPME) (ng/L)		
PCB-001	E1668C	1.146 U
PCB-002	E1668C	0.0517 U
PCB-003	E1668C	0.24 U
PCB-004	E1668C	6.41 U
PCB-005	E1668C	**0.0857 J**
PCB-006	E1668C	2.313 U
PCB-007	E1668C	**0.0479 J**
PCB-008	E1668C	2.107 U
PCB-009	E1668C	0.0809 U
PCB-010	E1668C	0.386 U
PCB-011	E1668C	**0.506**
PCB-012/013	E1668C	0.389 U
PCB-014	E1668C	0.0282 U
PCB-015	E1668C	**3.01**
PCB-016	E1668C	1.401 U
PCB-017	E1668C	**7.217**
PCB-018/030	E1668C	6.344 U
PCB-019	E1668C	**3.897**
PCB-020/028	E1668C	5.185 U
PCB-021/033	E1668C	**1.087**
PCB-022	E1668C	0.751 U
PCB-023	E1668C	0.063 U
PCB-024	E1668C	**0.112 J**
PCB-025	E1668C	**3.099**
PCB-026/029	E1668C	2.463 U
PCB-027	E1668C	**1.624**
PCB-031	E1668C	**3.962**
PCB-032	E1668C	**4.715**
PCB-034	E1668C	0.0671 U
PCB-035	E1668C	0.0589 U
PCB-036	E1668C	0.0414 U
PCB-037	E1668C	**1.054**
PCB-038	E1668C	**0.193 J**
PCB-039	E1668C	0.0444 U
PCB-040/071	E1668C	**68.066**
PCB-041	E1668C	0.025 U
PCB-042	E1668C	**32.949**
PCB-043	E1668C	0.0161 U
PCB-044/047/065	E1668C	**769.594**
PCB-045	E1668C	**19.138**
PCB-046	E1668C	**3.564**
PCB-048	E1668C	**6.913**
PCB-049/069	E1668C	**480.949**
PCB-050/053	E1668C	**178.661**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 10/1/2024 HOUS-COL-VP81-CTRL-WET2-PW-SPME-241001
PCB-051	E1668C	**47.515**
PCB-052	E1668C	**1012.801 J**
PCB-054	E1668C	**5.32**
PCB-055	E1668C	1.318 U
PCB-056	E1668C	**14.819**
PCB-057	E1668C	1.461 U
PCB-058	E1668C	1.316 U
PCB-059/062/075	E1668C	**24.529**
PCB-060	E1668C	1.652 U
PCB-061/070/074/076	E1668C	**188.103**
PCB-063	E1668C	1.501 U
PCB-064	E1668C	**44.178**
PCB-066	E1668C	**91.072**
PCB-067	E1668C	1.103 U
PCB-068	E1668C	**8.576**
PCB-072	E1668C	**13.374**
PCB-073	E1668C	**32.08**
PCB-077	E1668C	1.529 U
PCB-078	E1668C	1.16 U
PCB-079	E1668C	**4.907**
PCB-080	E1668C	0.881 U
PCB-081	E1668C	1.238 U
PCB-082	E1668C	**58.31**
PCB-083	E1668C	22.557 U
PCB-084	E1668C	**977.007 J**
PCB-085/116	E1668C	**140.482**
PCB-086/087/097/109/119/125	E1668C	**624.91**
PCB-088	E1668C	23.988 U
PCB-089	E1668C	22.298 U
PCB-090/101/113	E1668C	**1707.787 J**
PCB-091	E1668C	**931.422 J**
PCB-092	E1668C	**1204.199 J**
PCB-093/100	E1668C	**215.241**
PCB-094	E1668C	**74.911**
PCB-095	E1668C	**3036.239 J**
PCB-096	E1668C	**39.873**
PCB-098	E1668C	17.302 U
PCB-099	E1668C	**471.568 J**
PCB-102	E1668C	**110.333**
PCB-103	E1668C	**157.459**
PCB-104	E1668C	**3.762**
PCB-105	E1668C	**45.263**
PCB-106	E1668C	6.622 U
PCB-107	E1668C	**11.447**
PCB-108/124	E1668C	**12.458**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 10/1/2024 HOUS-COL-VP81-CTRL-WET2-PW-SPME-241001
PCB-110	E1668C	**969.674 J**
PCB-111	E1668C	6.066 U
PCB-112	E1668C	7.829 U
PCB-114	E1668C	8.072 U
PCB-115	E1668C	6.857 U
PCB-117	E1668C	**11.39**
PCB-118	E1668C	**150.584 J**
PCB-120	E1668C	5.14 U
PCB-121	E1668C	6.837 U
PCB-122	E1668C	10.712 U
PCB-123	E1668C	6.66 U
PCB-126	E1668C	0.0216 U
PCB-127	E1668C	1.874 U
PCB-128/166	E1668C	**88.217**
PCB-129/138/163	E1668C	**895.376 J**
PCB-130	E1668C	**48.586**
PCB-131	E1668C	**11.589**
PCB-132	E1668C	**443.132 J**
PCB-133	E1668C	**15.927**
PCB-134	E1668C	**93.548**
PCB-135/151	E1668C	**788.107 J**
PCB-136	E1668C	**158.571 J**
PCB-137	E1668C	**17.744**
PCB-139/140	E1668C	**12.571**
PCB-141	E1668C	**231.976 J**
PCB-142	E1668C	0.0122 U
PCB-143	E1668C	0.00981 U
PCB-144	E1668C	**91.981**
PCB-145	E1668C	**0.422**
PCB-146	E1668C	**373.401 J**
PCB-147/149	E1668C	**1006.658 J**
PCB-148	E1668C	**3.684**
PCB-150	E1668C	**4.619**
PCB-152	E1668C	**3.797**
PCB-153/168	E1668C	**679.655 J**
PCB-154	E1668C	**20.879**
PCB-155	E1668C	**0.234 J**
PCB-156/157	E1668C	**21.834**
PCB-158	E1668C	**56.311**
PCB-159	E1668C	**9.031**
PCB-160	E1668C	0.00496 U
PCB-161	E1668C	0.00362 U
PCB-162	E1668C	**1.261**
PCB-164	E1668C	**47.026**
PCB-165	E1668C	**3.219**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 10/1/2024 HOUS-COL-VP81-CTRL-WET2-PW-SPME-241001
PCB-167	E1668C	**15.404**
PCB-169	E1668C	0.0282 U
PCB-170	E1668C	**149.026 J**
PCB-171/173	E1668C	**67.487**
PCB-172	E1668C	**28.542**
PCB-174	E1668C	**268.354 J**
PCB-175	E1668C	**11.881**
PCB-176	E1668C	**201.745 J**
PCB-177	E1668C	**149.967 J**
PCB-178	E1668C	**74.559 J**
PCB-179	E1668C	**684.008 J**
PCB-180/193	E1668C	**322.957 J**
PCB-181	E1668C	**1.045**
PCB-182	E1668C	**0.882**
PCB-183	E1668C	**144.908 J**
PCB-184	E1668C	**0.604**
PCB-185	E1668C	**35.692**
PCB-186	E1668C	0.00347 U
PCB-187	E1668C	**295.806 J**
PCB-188	E1668C	**0.768**
PCB-189	E1668C	**2.353**
PCB-190	E1668C	**24.26**
PCB-191	E1668C	**5.383**
PCB-192	E1668C	0.0152 U
PCB-194	E1668C	**20.688**
PCB-195	E1668C	**14.953**
PCB-196	E1668C	**20.635**
PCB-197	E1668C	**2.708**
PCB-198/199	E1668C	**41.692**
PCB-200	E1668C	**11.105**
PCB-201	E1668C	**6.714**
PCB-202	E1668C	**12.486**
PCB-203	E1668C	**21.767**
PCB-204	E1668C	**0.0131 J**
PCB-205	E1668C	**0.954**
PCB-206	E1668C	**2.259**
PCB-207	E1668C	**0.605**
PCB-208	E1668C	**0.852**
PCB-209	E1668C	**0.0827**
Total PCB Congener (U = 0 max limit)	Calculated	**21800 J**

Attachment D-1
Column Testing Porewater (SPME) PCB Data

Notes:

Bold: Detected result

Calculated values have been rounded to laboratory-reported significant digits

J: Estimated value

R: Rejected

U: Compound analyzed for, but not detected above detection limit

UJ: Compound analyzed for, but not detected above estimated detection limit

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Method	Location ID Sample Date Sample ID	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-CTRL-A	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-CTRL-B	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-1-PAC-A	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-1-PAC-B	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-2-PAC-A	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-2-PAC-B
PCB Congeners (SPME) (ng/L)								
PCB-001	E1668C		0.0627 UJ	0.0529 UJ	0.0649 UJ	0.0543 UJ	0.0553 UJ	0.0596 UJ
PCB-002	E1668C		0.021 UJ	0.0182 UJ	0.0203 UJ	0.0165 UJ	0.0179 UJ	0.0191 UJ
PCB-003	E1668C		0.0235 UJ	0.0204 UJ	0.0228 UJ	0.0184 UJ	0.0201 UJ	0.0213 UJ
PCB-004	E1668C		**0.294 J**	**0.226 J**	**0.258 J**	**0.268 J**	**0.28 J**	**0.326 J**
PCB-005	E1668C		0.0138 UJ	0.0224 UJ	0.0167 UJ	0.0216 UJ	0.0156 UJ	0.023 UJ
PCB-006	E1668C		**0.0313 J**	**0.0318 J**	**0.0266 J**	**0.0279 J**	**0.0347 J**	**0.0345 J**
PCB-007	E1668C		0.0109 UJ	0.0178 UJ	0.0133 UJ	0.0172 UJ	0.0124 UJ	0.0183 UJ
PCB-008	E1668C		**0.0601 J**	**0.0546 J**	**0.0641 J**	**0.0675 J**	**0.0641 J**	**0.0751 J**
PCB-009	E1668C		0.0102 UJ	0.0165 UJ	0.0123 UJ	0.016 UJ	0.0115 UJ	0.017 UJ
PCB-010	E1668C		0.0334 UJ	0.0253 UJ	0.0345 UJ	0.0238 UJ	0.0364 UJ	0.0279 UJ
PCB-011	E1668C		0.00636 UJ	0.0104 UJ	0.00772 UJ	0.00999 UJ	0.00718 UJ	0.0106 UJ
PCB-012/013	E1668C		**0.0131 J**	0.0131 UJ	0.00973 UJ	0.0126 UJ	0.00907 UJ	0.0134 UJ
PCB-014	E1668C		0.00696 UJ	0.0113 UJ	0.00845 UJ	0.0109 UJ	0.00787 UJ	0.0116 UJ
PCB-015	E1668C		**0.0533 J**	**0.0589 J**	**0.0487 J**	**0.0615 J**	**0.0655 J**	**0.0568 J**
PCB-016	E1668C		**0.0477 J**	**0.0497 J**	**0.0415 J**	**0.0524 J**	**0.0551 J**	**0.05 J**
PCB-017	E1668C		**0.289 J**	**0.249 J**	**0.256 J**	**0.254 J**	**0.28 J**	**0.271 J**
PCB-018/030	E1668C		**0.17 J**	**0.159 J**	**0.158 J**	**0.167 J**	**0.203 J**	**0.177 J**
PCB-019	E1668C		**0.0398 J**	**0.0444 J**	**0.0356 J**	**0.0515 J**	**0.0472 J**	**0.0376 J**
PCB-020/028	E1668C		**0.189 J**	**0.191 J**	**0.188 J**	**0.213 J**	**0.22 J**	**0.215 J**
PCB-021/033	E1668C		**0.0696 J**	**0.0739 J**	**0.0684 J**	**0.0792 J**	**0.0825 J**	**0.0794 J**
PCB-022	E1668C		**0.0216 J**	**0.02 J**	**0.0226 J**	**0.024 J**	**0.0272 J**	**0.0263 J**
PCB-023	E1668C		0.00638 UJ	0.00488 UJ	0.00438 UJ	0.00509 UJ	0.00597 UJ	0.00562 UJ
PCB-024	E1668C		0.00709 UJ	0.00641 UJ	0.00738 UJ	0.00483 UJ	0.00579 UJ	0.00572 UJ
PCB-025	E1668C		**0.0604 J**	**0.0616 J**	**0.0636 J**	**0.0695 J**	**0.0706 J**	**0.0737 J**
PCB-026/029	E1668C		**0.131 J**	**0.137 J**	**0.138 J**	**0.148 J**	**0.151 J**	**0.158 J**
PCB-027	E1668C		**0.0389 J**	**0.0349 J**	**0.0354 J**	**0.037 J**	**0.0348 J**	**0.0382 J**
PCB-031	E1668C		**0.155 J**	**0.159 J**	**0.154 J**	**0.175 J**	**0.176 J**	**0.179 J**
PCB-032	E1668C		**0.119 J**	**0.105 J**	**0.107 J**	**0.114 J**	**0.126 J**	**0.119 J**
PCB-034	E1668C		0.00533 UJ	**0.00479 J**	**0.00487 J**	**0.00418 J**	0.00499 UJ	0.00469 UJ
PCB-035	E1668C		0.00351 UJ	0.00268 UJ	0.00241 UJ	**0.00434 J**	0.00328 UJ	0.00308 UJ
PCB-036	E1668C		0.00273 UJ	0.00208 UJ	0.00187 UJ	0.00217 UJ	0.00254 UJ	0.00239 UJ
PCB-037	E1668C		**0.0464 J**	**0.0537 J**	**0.0486 J**	**0.0606 J**	**0.058 J**	**0.0518 J**
PCB-038	E1668C		0.00378 UJ	0.00288 UJ	**0.00929 J**	**0.00927 J**	**0.00787 J**	**0.00875 J**
PCB-039	E1668C		0.00293 UJ	0.00224 UJ	0.00201 UJ	0.00232 UJ	0.00273 UJ	0.00257 UJ
PCB-040/071	E1668C		**0.864 J**	**0.925 J**	**0.924 J**	**1.122 J**	**1.088 J**	**1.039 J**
PCB-041	E1668C		**0.0145 J**	0.00477 UJ	0.00462 UJ	0.00409 UJ	0.00456 UJ	0.00441 UJ
PCB-042	E1668C		**0.697 J**	**0.735 J**	**0.744 J**	**0.906 J**	**0.858 J**	**0.836 J**
PCB-043	E1668C		**0.0311 J**	**0.0391 J**	**0.0367 J**	**0.043 J**	**0.0301 J**	**0.0382 J**
PCB-044/047/065	E1668C		**5.649 J**	**6.512 J**	**6.093 J**	**7.436 J**	**6.985 J**	**6.803 J**
PCB-045	E1668C		**0.245 J**	**0.24 J**	**0.184 J**	**0.383 J**	**0.264 J**	**0.228 J**
PCB-046	E1668C		**0.0428 J**	**0.0517 J**	**0.0471 J**	**0.065 J**	**0.0565 J**	**0.0601 J**
PCB-048	E1668C		**0.0528 J**	**0.0604 J**	**0.0523 J**	**0.08 J**	**0.0755 J**	**0.0658 J**
PCB-049/069	E1668C		**6.991 J**	**7.351 J**	**7.621 J**	**9.159 J**	**8.679 J**	**8.458 J**
PCB-050/053	E1668C		**1.341 J**	**1.391 J**	**1.398 J**	**1.738 J**	**1.61 J**	**1.637 J**

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Method	Location ID: VP12-B-C-1/2-BST Sample Date: 8/20/2024 Sample ID: HOUS-VP12-JAR-SPME-CTRL-A	Location ID: VP12-B-C-1/2-BST Sample Date: 8/20/2024 Sample ID: HOUS-VP12-JAR-SPME-CTRL-B	Location ID: VP12-B-C-1/2-BST Sample Date: 8/20/2024 Sample ID: HOUS-VP12-JAR-SPME-1-PAC-A	Location ID: VP12-B-C-1/2-BST Sample Date: 8/20/2024 Sample ID: HOUS-VP12-JAR-SPME-1-PAC-B	Location ID: VP12-B-C-1/2-BST Sample Date: 8/20/2024 Sample ID: HOUS-VP12-JAR-SPME-2-PAC-A	Location ID: VP12-B-C-1/2-BST Sample Date: 8/20/2024 Sample ID: HOUS-VP12-JAR-SPME-2-PAC-B
PCB-051	E1668C	**0.231 J**	**0.251 J**	**0.29 J**	**0.273 J**	**0.289 J**	**0.32 J**
PCB-052	E1668C	**27.27 J**	**28.215 J**	**29.18 J**	**35.159 J**	**33.239 J**	**32.717 J**
PCB-054	E1668C	**0.0632 J**	**0.0659 J**	**0.0687 J**	**0.0736 J**	**0.067 J**	**0.0665 J**
PCB-055	E1668C	0.00898 UJ	0.0122 UJ	0.0105 UJ	0.0175 UJ	0.0148 UJ	0.0139 UJ
PCB-056	E1668C	**0.168 J**	**0.174 J**	**0.18 J**	**0.213 J**	**0.203 J**	**0.194 J**
PCB-057	E1668C	0.00877 UJ	0.0119 UJ	0.0102 UJ	0.017 UJ	0.0144 UJ	0.0135 UJ
PCB-058	E1668C	0.00762 UJ	0.0104 UJ	0.00888 UJ	0.0148 UJ	0.0125 UJ	0.0117 UJ
PCB-059/062/075	E1668C	**0.304 J**	0.0018 UJ	**0.323 J**	**0.385 J**	**0.372 J**	**0.354 J**
PCB-060	E1668C	**0.0295 J**	**0.0305 J**	**0.0288 J**	**0.0366 J**	**0.0335 J**	**0.0343 J**
PCB-061/070/074/076	E1668C	**2.944 J**	**3.154 J**	**3.252 J**	**3.974 J**	**3.798 J**	**3.593 J**
PCB-063	E1668C	**0.0221 J**	**0.0238 J**	**0.0256 J**	**0.0286 J**	**0.0276 J**	**0.0281 J**
PCB-064	E1668C	**1.121 J**	**1.175 J**	**1.177 J**	**1.405 J**	**1.348 J**	**1.287 J**
PCB-066	E1668C	**1.188 J**	**1.276 J**	**1.322 J**	**1.544 J**	**1.523 J**	**1.428 J**
PCB-067	E1668C	**0.0244 J**	**0.0221 J**	**0.0273 J**	**0.0207 J**	**0.0344 J**	**0.0295 J**
PCB-068	E1668C	**0.0667 J**	**0.0691 J**	**0.0725 J**	**0.0802 J**	**0.0775 J**	**0.0752 J**
PCB-072	E1668C	**0.144 J**	**0.154 J**	**0.154 J**	**0.181 J**	**0.179 J**	**0.171 J**
PCB-073	E1668C	**0.0885 J**	**0.0907 J**	**0.0861 J**	**0.128 J**	**0.114 J**	**0.12 J**
PCB-077	E1668C	**0.0559 J**	**0.0578 J**	**0.0678 J**	**0.122 J**	**0.106 J**	**0.0623 J**
PCB-078	E1668C	0.00591 UJ	0.00797 UJ	0.0069 UJ	0.0112 UJ	0.0095 UJ	0.00895 UJ
PCB-079	E1668C	**0.134 J**	**0.147 J**	**0.135 J**	**0.165 J**	**0.176 J**	**0.154 J**
PCB-080	E1668C	0.00433 UJ	0.00577 UJ	0.00502 UJ	0.00797 UJ	0.00674 UJ	0.0064 UJ
PCB-081	E1668C	0.00565 UJ	0.0076 UJ	0.00657 UJ	0.0107 UJ	0.00903 UJ	0.00852 UJ
PCB-082	E1668C	**1.58 J**	**1.718 J**	**1.678 J**	**1.944 J**	**1.896 J**	**1.846 J**
PCB-083	E1668C	**0.584 J**	**0.621 J**	**0.708 J**	**1.011 J**	**1.228 J**	**0.895 J**
PCB-084	E1668C	**10.132 J**	**11.005 J**	**10.79 J**	**12.706 J**	**12.352 J**	**11.945 J**
PCB-085/116	E1668C	**3.474 J**	**3.801 J**	**3.768 J**	**4.147 J**	**4.252 J**	**4.099 J**
PCB-086/087/097/109/	E1668C	**17.598 J**	**19.482 J**	**19.2 J**	**22.545 J**	**21.957 J**	**21.11 J**
PCB-088	E1668C	0.25 UJ	0.286 UJ	0.251 UJ	0.294 UJ	0.322 UJ	0.301 UJ
PCB-089	E1668C	0.218 UJ	0.249 UJ	0.219 UJ	0.256 UJ	0.28 UJ	0.262 UJ
PCB-090/101/113	E1668C	**42.341 J**	**47.072 J**	**46.005 J**	**53.557 J**	**52.587 J**	**50.128 J**
PCB-091	E1668C	**6.853 J**	**7.515 J**	**7.322 J**	**8.725 J**	**8.506 J**	**8.214 J**
PCB-092	E1668C	**9.617 J**	**10.769 J**	**10.553 J**	**12.305 J**	**12.053 J**	**11.498 J**
PCB-093/100	E1668C	**0.94 J**	0.284 UJ	**0.99 J**	**1.16 J**	**1.07 J**	**1.07 J**
PCB-094	E1668C	**0.374 J**	**0.415 J**	**0.39 J**	**0.475 J**	**0.449 J**	**0.45 J**
PCB-095	E1668C	**70.061 J**	**76.672 J**	**73.533 J**	**87.861 J**	**84.173 J**	**82.45 J**
PCB-096	E1668C	**0.624 J**	**0.626 J**	**0.615 J**	**0.716 J**	**0.773 J**	**0.687 J**
PCB-098	E1668C	0.18 UJ	0.206 UJ	0.181 UJ	**0.157 J**	0.231 UJ	0.216 UJ
PCB-099	E1668C	**11.375 J**	**12.807 J**	**12.532 J**	**14.523 J**	**14.11 J**	**13.575 J**
PCB-102	E1668C	**0.929 J**	**1.011 J**	**0.889 J**	**1.054 J**	**1.125 J**	**1.095 J**
PCB-103	E1668C	**1.156 J**	**1.291 J**	**1.232 J**	**1.508 J**	**1.451 J**	**1.393 J**
PCB-104	E1668C	**0.051 J**	**0.0496 J**	**0.052 J**	**0.0608 J**	**0.0721 J**	**0.0558 J**
PCB-105	E1668C	**1.237 J**	**1.308 J**	**1.307 J**	**1.348 J**	**1.405 J**	**1.427 J**
PCB-106	E1668C	0.0503 UJ	0.0549 UJ	0.050 UJ	0.0525 UJ	0.0576 UJ	0.055 UJ
PCB-107	E1668C	**0.343 J**	**0.361 J**	**0.376 J**	**0.114 J**	**0.383 J**	**0.362 J**
PCB-108/124	E1668C	**0.279 J**	**0.294 J**	**0.302 J**	**0.31 J**	**0.311 J**	**0.296 J**

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID / Sample Date / Sample ID / Method	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-CTRL-A	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-CTRL-B	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-1-PAC-A	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-1-PAC-B	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-2-PAC-A	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-2-PAC-B
PCB-110	E1668C	**19.463 J**	**21.108 J**	**20.983 J**	**23.335 J**	**22.753 J**	**22.027 J**
PCB-111	E1668C	0.0458 UJ	0.0486 UJ	0.0453 UJ	0.0445 UJ	0.0487 UJ	0.0471 UJ
PCB-112	E1668C	0.0664 UJ	0.0746 UJ	0.0664 UJ	0.0744 UJ	0.0814 UJ	0.0767 UJ
PCB-114	E1668C	**0.061 J**	**0.0685 J**	**0.0669 J**	**0.069 J**	**0.0797 J**	**0.0702 J**
PCB-115	E1668C	0.0701 UJ	0.0784 UJ	0.070 UJ	0.0776 UJ	0.0849 UJ	0.0803 UJ
PCB-117	E1668C	**0.32 J**	**0.344 J**	**0.366 J**	**0.445 J**	**0.377 J**	**0.411 J**
PCB-118	E1668C	**4.191 J**	**4.337 J**	**4.313 J**	**0.563 J**	**4.784 J**	**4.473 J**
PCB-120	E1668C	**0.0489 J**	**0.0531 J**	**0.0573 J**	**0.0593 J**	**0.0562 J**	**0.054 J**
PCB-121	E1668C	0.0496 UJ	0.0543 UJ	0.0494 UJ	0.0519 UJ	0.0569 UJ	0.0542 UJ
PCB-122	E1668C	**0.0813 J**	**0.0858 J**	**0.0938 J**	**0.0902 J**	**0.101 J**	**0.0963 J**
PCB-123	E1668C	**0.0952 J**	**0.103 J**	**0.1 J**	0.0424 UJ	**0.109 J**	**0.0968 J**
PCB-126	E1668C	**0.0097 J**	**0.00865 J**	**0.012 J**	**0.0145 J**	**0.0127 J**	**0.00954 J**
PCB-127	E1668C	0.0321 UJ	0.0323 UJ	0.0345 UJ	0.0283 UJ	0.0291 UJ	0.0337 UJ
PCB-128/166	E1668C	**2.212 J**	**2.523 J**	**2.512 J**	**2.61 J**	**2.563 J**	**2.256 J**
PCB-129/138/163	E1668C	**26.896 J**	**30.041 J**	**28.323 J**	**32.056 J**	**31.351 J**	**29.435 J**
PCB-130	E1668C	**1.152 J**	**1.271 J**	**1.234 J**	**1.37 J**	**1.329 J**	**1.233 J**
PCB-131	E1668C	**0.301 J**	**0.385 J**	**0.326 J**	**0.444 J**	**0.425 J**	**0.395 J**
PCB-132	E1668C	**13.089 J**	**14.981 J**	**14.043 J**	**17.389 J**	**16.725 J**	**15.59 J**
PCB-133	E1668C	**0.37 J**	**0.394 J**	**0.39 J**	**0.417 J**	**0.4 J**	**0.379 J**
PCB-134	E1668C	**2.373 J**	**2.772 J**	**2.575 J**	**3.271 J**	**3.041 J**	**2.904 J**
PCB-135/151	E1668C	**22.316 J**	**25.628 J**	**23.865 J**	**29.004 J**	**27.98 J**	**26.045 J**
PCB-136	E1668C	**9.082 J**	**10.65 J**	**10.434 J**	**12.198 J**	**11.467 J**	**11 J**
PCB-137	E1668C	**0.394 J**	**0.434 J**	**0.45 J**	**0.517 J**	**0.534 J**	**0.458 J**
PCB-139/140	E1668C	**0.356 J**	**0.407 J**	**0.388 J**	**0.475 J**	**0.455 J**	**0.415 J**
PCB-141	E1668C	**6.452 J**	**7.08 J**	**6.925 J**	**7.655 J**	**7.397 J**	**6.889 J**
PCB-142	E1668C	0.00198 UJ	0.00201 UJ	0.00207 UJ	0.00186 UJ	0.00214 UJ	0.00203 UJ
PCB-143	E1668C	0.0016 UJ	0.00161 UJ	0.00168 UJ	0.00146 UJ	0.00168 UJ	0.00161 UJ
PCB-144	E1668C	**2.286 J**	**2.641 J**	**2.453 J**	**3.06 J**	**2.926 J**	**2.683 J**
PCB-145	E1668C	**0.0195 J**	0.00227 UJ	**0.024 J**	**0.0482 J**	**0.04 J**	0.00268 UJ
PCB-146	E1668C	**3.438 J**	**3.714 J**	**3.72 J**	**3.833 J**	**3.715 J**	**3.423 J**
PCB-147/149	E1668C	**40.169 J**	**45.436 J**	**42.087 J**	**49.392 J**	**48.068 J**	**45.499 J**
PCB-148	E1668C	**0.0849 J**	**0.0957 J**	**0.0909 J**	**0.108 J**	**0.104 J**	**0.0952 J**
PCB-150	E1668C	**0.202 J**	**0.257 J**	**0.233 J**	**0.317 J**	**0.307 J**	**0.275 J**
PCB-152	E1668C	**0.106 J**	**0.132 J**	**0.122 J**	**0.175 J**	**0.16 J**	**0.152 J**
PCB-153/168	E1668C	**22.305 J**	**22.905 J**	**23.221 J**	**22.464 J**	**21.919 J**	**21.244 J**
PCB-154	E1668C	**0.469 J**	**0.522 J**	**0.488 J**	**0.617 J**	**0.569 J**	**0.543 J**
PCB-155	E1668C	**0.00236 J**	**0.00281 J**	**0.0025 J**	**0.00302 J**	**0.00284 J**	**0.00276 J**
PCB-156/157	E1668C	**0.696 J**	**0.63 J**	**0.754 J**	**0.482 J**	**0.484 J**	**0.503 J**
PCB-158	E1668C	**1.626 J**	**1.597 J**	**1.708 J**	**1.477 J**	**1.423 J**	**1.379 J**
PCB-159	E1668C	**0.366 J**	**0.364 J**	**0.427 J**	**0.308 J**	**0.274 J**	**0.255 J**
PCB-160	E1668C	0.000819 UJ	0.000735 UJ	0.000837 UJ	0.000574 UJ	0.000656 UJ	0.000661 UJ
PCB-161	E1668C	0.000633 UJ	0.000519 UJ	0.000634 UJ	0.00035 UJ	0.000402 UJ	0.00042 UJ
PCB-162	E1668C	**0.0421 J**	**0.0387 J**	**0.0459 J**	**0.026 J**	**0.0274 J**	**0.0274 J**
PCB-164	E1668C	**1.455 J**	**1.445 J**	**1.52 J**	**1.291 J**	**1.237 J**	**1.23 J**
PCB-165	E1668C	0.000739 UJ	**0.0256 J**	**0.0383 J**	**0.0326 J**	**0.0361 J**	**0.0277 J**

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Method	Location ID: VP12-B-C-1/2-BST Sample Date: 8/20/2024 Sample ID: HOUS-VP12-JAR-SPME-CTRL-A	Location ID: VP12-B-C-1/2-BST Sample Date: 8/20/2024 Sample ID: HOUS-VP12-JAR-SPME-CTRL-B	Location ID: VP12-B-C-1/2-BST Sample Date: 8/20/2024 Sample ID: HOUS-VP12-JAR-SPME-1-PAC-A	Location ID: VP12-B-C-1/2-BST Sample Date: 8/20/2024 Sample ID: HOUS-VP12-JAR-SPME-1-PAC-B	Location ID: VP12-B-C-1/2-BST Sample Date: 8/20/2024 Sample ID: HOUS-VP12-JAR-SPME-2-PAC-A	Location ID: VP12-B-C-1/2-BST Sample Date: 8/20/2024 Sample ID: HOUS-VP12-JAR-SPME-2-PAC-B
PCB-167	E1668C	**0.407 J**	**0.359 J**	**0.442 J**	**0.243 J**	**0.244 J**	**0.242 J**
PCB-169	E1668C	**0.0446 J**	**0.0465 J**	**0.0486 J**	**0.0533 J**	**0.0451 J**	**0.041 J**
PCB-170	E1668C	**4.869 J**	**4.373 J**	**5.255 J**	**3.663 J**	**3.106 J**	**3.263 J**
PCB-171/173	E1668C	**1.883 J**	**1.82 J**	**2.145 J**	**2.04 J**	**1.702 J**	**1.564 J**
PCB-172	E1668C	**0.96 J**	**0.785 J**	**1.057 J**	**0.609 J**	**0.514 J**	**0.534 J**
PCB-174	E1668C	**7.975 J**	**7.793 J**	**9.206 J**	**8.502 J**	**7.219 J**	**6.653 J**
PCB-175	E1668C	**0.306 J**	**0.279 J**	**0.342 J**	**0.29 J**	**0.24 J**	**0.225 J**
PCB-176	E1668C	**1.823 J**	**2.084 J**	**1.988 J**	**3.649 J**	**3.081 J**	**2.238 J**
PCB-177	E1668C	**3.961 J**	**3.898 J**	**4.521 J**	**4.417 J**	**3.783 J**	**3.407 J**
PCB-178	E1668C	**2.01 J**	**1.852 J**	**2.089 J**	**2.278 J**	**1.933 J**	**1.593 J**
PCB-179	E1668C	**6.734 J**	**7.759 J**	**7.229 J**	**13.501 J**	**11.3 J**	**8.492 J**
PCB-180/193	E1668C	**12.425 J**	**9.866 J**	**13.534 J**	**7.005 J**	**5.994 J**	**6.428 J**
PCB-181	E1668C	**0.0286 J**	**0.0285 J**	**0.0336 J**	**0.0315 J**	**0.0259 J**	**0.0242 J**
PCB-182	E1668C	**0.0284 J**	**0.0257 J**	**0.0311 J**	**0.022 J**	**0.0204 J**	**0.0177 J**
PCB-183	E1668C	**4.055 J**	**3.675 J**	**4.478 J**	**3.642 J**	**3.025 J**	**2.847 J**
PCB-184	E1668C	**0.00422 J**	**0.00501 J**	**0.0048 J**	**0.00835 J**	**0.00688 J**	**0.00577 J**
PCB-185	E1668C	**0.926 J**	**1.012 J**	**1.196 J**	**1.13 J**	**0.945 J**	**0.854 J**
PCB-186	E1668C	0.00075 UJ	0.000787 UJ	0.000663 UJ	0.000757 UJ	0.000766 UJ	0.000924 UJ
PCB-187	E1668C	**8.586 J**	**8.017 J**	**9.773 J**	**7.997 J**	**6.75 J**	**6.432 J**
PCB-188	E1668C	**0.0119 J**	**0.0126 J**	**0.0125 J**	**0.0246 J**	**0.0188 J**	**0.0137 J**
PCB-189	E1668C	**0.183 J**	**0.114 J**	**0.186 J**	**0.0355 J**	**0.0323 J**	**0.0506 J**
PCB-190	E1668C	**1.213 J**	**0.947 J**	**1.252 J**	**0.532 J**	**0.454 J**	**0.56 J**
PCB-191	E1668C	**0.256 J**	**0.178 J**	**0.273 J**	**0.0821 J**	**0.0703 J**	**0.092 J**
PCB-192	E1668C	0.0027 UJ	0.00119 UJ	0.00183 UJ	0.000686 UJ	0.000469 UJ	0.00077 UJ
PCB-194	E1668C	**2.103 J**	**1.388 J**	**2.211 J**	**0.423 J**	**0.306 J**	**0.57 J**
PCB-195	E1668C	**0.898 J**	**0.691 J**	**0.978 J**	**0.41 J**	**0.291 J**	**0.366 J**
PCB-196	E1668C	**1.344 J**	**1.011 J**	**1.412 J**	**0.474 J**	**0.317 J**	**0.457 J**
PCB-197	E1668C	**0.0936 J**	**0.0874 J**	**0.103 J**	**0.0921 J**	**0.0618 J**	**0.0603 J**
PCB-198/199	E1668C	**2.743 J**	**2.082 J**	**2.922 J**	**1.066 J**	**0.724 J**	**0.987 J**
PCB-200	E1668C	**0.389 J**	**0.373 J**	**0.43 J**	**0.434 J**	**0.282 J**	**0.272 J**
PCB-201	E1668C	**0.463 J**	**0.344 J**	**0.482 J**	**0.184 J**	**0.12 J**	**0.166 J**
PCB-202	E1668C	**0.459 J**	**0.428 J**	**0.506 J**	**0.444 J**	**0.288 J**	**0.288 J**
PCB-203	E1668C	**1.552 J**	**1.159 J**	**1.653 J**	**0.549 J**	**0.368 J**	**0.53 J**
PCB-204	E1668C	**0.000472 J**	**0.000391 J**	**0.000431 J**	**0.000456 J**	0.000194 UJ	**0.000295 J**
PCB-205	E1668C	**0.179 J**	**0.103 J**	**0.181 J**	**0.0169 J**	**0.0126 J**	**0.0369 J**
PCB-206	E1668C	**0.545 J**	**0.298 J**	**0.52 J**	**0.0416 J**	**0.0268 J**	**0.099 J**
PCB-207	E1668C	**0.0566 J**	**0.0403 J**	**0.0595 J**	**0.0157 J**	**0.0101 J**	**0.0171 J**
PCB-208	E1668C	**0.0772 J**	**0.0564 J**	**0.0809 J**	**0.0234 J**	**0.015 J**	**0.0237 J**
PCB-209	E1668C	**0.0163 J**	**0.0109 J**	**0.0143 J**	**0.00255 J**	**0.00138 J**	**0.00347 J**
Total PCB Congener (U	Calculated	**480 J**	**520 J**	**520 J**	**570 J**	**550 J**	**530 J**

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Method	Location ID Sample Date Sample ID	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-5-PAC-A	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-5-PAC-B	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-2-GAC-A	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-2-GAC-B	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-5-GAC-A	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-5-GAC-B
PCB Congeners (SPME) (ng/L)								
PCB-001	E1668C		0.0562 UJ	0.134 UJ	0.0619 UJ	**0.0993 J**	**0.0959 J**	0.0553 UJ
PCB-002	E1668C		0.0188 UJ	0.0391 UJ	0.0185 UJ	0.0148 UJ	0.024 UJ	0.0176 UJ
PCB-003	E1668C		0.021 UJ	0.0437 UJ	0.0207 UJ	0.0163 UJ	0.0265 UJ	0.0194 UJ
PCB-004	E1668C		**0.305 J**	**0.285 J**	**0.314 J**	**0.29 J**	**0.271 J**	**0.231 J**
PCB-005	E1668C		0.0192 UJ	0.0241 UJ	0.0196 UJ	0.0169 UJ	0.0214 UJ	0.0164 UJ
PCB-006	E1668C		**0.0351 J**	**0.0213 J**	**0.0366 J**	**0.0324 J**	**0.0318 J**	**0.0308 J**
PCB-007	E1668C		0.0153 UJ	0.0191 UJ	0.0156 UJ	0.0134 UJ	0.0169 UJ	0.0129 UJ
PCB-008	E1668C		**0.0823 J**	**0.053 J**	**0.0696 J**	**0.0634 J**	**0.0632 J**	**0.061 J**
PCB-009	E1668C		0.0142 UJ	0.0178 UJ	0.0145 UJ	0.0123 UJ	0.0155 UJ	0.0119 UJ
PCB-010	E1668C		0.0231 UJ	0.0676 UJ	0.0281 UJ	0.023 UJ	0.0247 UJ	0.0258 UJ
PCB-011	E1668C		0.00889 UJ	0.0111 UJ	0.00906 UJ	0.00779 UJ	0.00983 UJ	0.00752 UJ
PCB-012/013	E1668C		0.0112 UJ	0.014 UJ	0.0114 UJ	0.00986 UJ	0.0124 UJ	0.00952 UJ
PCB-014	E1668C		0.00972 UJ	0.0122 UJ	0.00992 UJ	0.00856 UJ	0.0108 UJ	0.00827 UJ
PCB-015	E1668C		**0.0565 J**	**0.0568 J**	**0.0588 J**	**0.0592 J**	**0.0575 J**	**0.0599 J**
PCB-016	E1668C		**0.0597 J**	**0.0462 J**	**0.0647 J**	**0.0488 J**	**0.0596 J**	**0.0591 J**
PCB-017	E1668C		**0.27 J**	**0.283 J**	**0.296 J**	**0.263 J**	**0.258 J**	**0.265 J**
PCB-018/030	E1668C		**0.195 J**	**0.178 J**	**0.19 J**	**0.183 J**	**0.178 J**	**0.183 J**
PCB-019	E1668C		**0.0394 J**	**0.0377 J**	**0.0445 J**	**0.046 J**	**0.0425 J**	**0.0451 J**
PCB-020/028	E1668C		**0.219 J**	**0.185 J**	**0.209 J**	**0.212 J**	**0.212 J**	**0.213 J**
PCB-021/033	E1668C		**0.0849 J**	**0.0674 J**	**0.0768 J**	**0.0825 J**	**0.0889 J**	**0.0789 J**
PCB-022	E1668C		**0.0272 J**	**0.022 J**	**0.0225 J**	**0.0253 J**	**0.0256 J**	**0.0254 J**
PCB-023	E1668C		0.00651 UJ	0.00507 UJ	0.00766 UJ	0.00595 UJ	0.00666 UJ	0.00486 UJ
PCB-024	E1668C		0.0063 UJ	0.011 UJ	0.00695 UJ	0.00428 UJ	0.00674 UJ	0.00563 UJ
PCB-025	E1668C		**0.0735 J**	**0.0614 J**	**0.0681 J**	**0.0689 J**	**0.0728 J**	**0.0675 J**
PCB-026/029	E1668C		**0.158 J**	**0.126 J**	**0.151 J**	**0.149 J**	**0.152 J**	**0.144 J**
PCB-027	E1668C		**0.0398 J**	**0.0425 J**	**0.0397 J**	**0.0387 J**	**0.036 J**	**0.0394 J**
PCB-031	E1668C		**0.178 J**	**0.143 J**	**0.171 J**	**0.175 J**	**0.174 J**	**0.166 J**
PCB-032	E1668C		**0.116 J**	**0.129 J**	**0.127 J**	**0.114 J**	**0.106 J**	**0.119 J**
PCB-034	E1668C		0.00544 UJ	0.00423 UJ	0.0064 UJ	0.00494 UJ	0.00553 UJ	0.00403 UJ
PCB-035	E1668C		0.00358 UJ	0.00278 UJ	0.00421 UJ	0.00326 UJ	0.00364 UJ	**0.00378 J**
PCB-036	E1668C		0.00278 UJ	0.00216 UJ	0.00326 UJ	0.00249 UJ	0.00279 UJ	0.00203 UJ
PCB-037	E1668C		**0.0512 J**	**0.0499 J**	**0.0573 J**	**0.0589 J**	**0.0571 J**	**0.0569 J**
PCB-038	E1668C		**0.00971 J**	**0.00795 J**	**0.00587 J**	**0.00845 J**	**0.00781 J**	**0.00678 J**
PCB-039	E1668C		0.00298 UJ	0.00232 UJ	0.0035 UJ	0.00271 UJ	0.00304 UJ	0.00221 UJ
PCB-040/071	E1668C		**1.084 J**	**0.919 J**	**1.084 J**	**1.006 J**	**1.03 J**	**0.976 J**
PCB-041	E1668C		0.00428 UJ	0.00488 UJ	0.00467 UJ	0.00388 UJ	0.00412 UJ	0.00327 UJ
PCB-042	E1668C		**0.871 J**	**0.723 J**	**0.856 J**	**0.832 J**	**0.84 J**	**0.804 J**
PCB-043	E1668C		**0.0386 J**	**0.03 J**	**0.0493 J**	**0.0389 J**	**0.0445 J**	**0.0413 J**
PCB-044/047/065	E1668C		**7.129 J**	**5.806 J**	**6.971 J**	**6.759 J**	**6.815 J**	**6.51 J**
PCB-045	E1668C		**0.219 J**	**0.246 J**	**0.268 J**	**0.216 J**	**0.308 J**	**0.281 J**
PCB-046	E1668C		**0.0648 J**	**0.048 J**	**0.0597 J**	**0.057 J**	**0.0579 J**	**0.0544 J**
PCB-048	E1668C		**0.0702 J**	**0.0576 J**	**0.0757 J**	**0.0608 J**	**0.0698 J**	**0.0701 J**
PCB-049/069	E1668C		**8.799 J**	**7.139 J**	**8.611 J**	**8.405 J**	**8.468 J**	**8.089 J**
PCB-050/053	E1668C		**1.692 J**	**1.264 J**	**1.608 J**	**1.573 J**	**1.629 J**	**1.527 J**

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID / Sample Date / Sample ID / Method	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-5-PAC-A	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-5-PAC-B	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-2-GAC-A	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-2-GAC-B	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-5-GAC-A	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-5-GAC-B
PCB-051	E1668C	**0.342 J**	**0.215 J**	**0.294 J**	**0.325 J**	**0.288 J**	**0.267 J**
PCB-052	E1668C	**33.835 J**	**27.352 J**	**33.113 J**	**31.889 J**	**32.185 J**	**30.709 J**
PCB-054	E1668C	**0.0677 J**	**0.0694 J**	**0.0754 J**	**0.0745 J**	**0.0714 J**	**0.0646 J**
PCB-055	E1668C	0.0147 UJ	0.0147 UJ	0.0207 UJ	0.0147 UJ	0.0165 UJ	0.0131 UJ
PCB-056	E1668C	**0.204 J**	**0.179 J**	**0.206 J**	**0.195 J**	**0.197 J**	**0.194 J**
PCB-057	E1668C	0.0143 UJ	0.0143 UJ	0.0202 UJ	0.0144 UJ	0.0161 UJ	0.0128 UJ
PCB-058	E1668C	0.0124 UJ	0.0125 UJ	0.0175 UJ	0.0127 UJ	0.0142 UJ	0.0113 UJ
PCB-059/062/075	E1668C	**0.362 J**	**0.307 J**	**0.365 J**	**0.35 J**	**0.363 J**	**0.348 J**
PCB-060	E1668C	0.0179 UJ	**0.0307 J**	**0.0331 J**	**0.0332 J**	**0.0328 J**	**0.033 J**
PCB-061/070/074/076	E1668C	**3.758 J**	**3.306 J**	**3.848 J**	**3.65 J**	**3.663 J**	**3.573 J**
PCB-063	E1668C	**0.0299 J**	**0.0247 J**	**0.0284 J**	**0.0304 J**	**0.0278 J**	**0.027 J**
PCB-064	E1668C	**1.348 J**	**1.136 J**	**1.348 J**	**1.305 J**	**1.314 J**	**1.255 J**
PCB-066	E1668C	**1.509 J**	**1.346 J**	**1.534 J**	**1.432 J**	**1.472 J**	**1.415 J**
PCB-067	E1668C	**0.0207 J**	**0.0312 J**	**0.0341 J**	**0.0296 J**	**0.0172 J**	**0.0313 J**
PCB-068	E1668C	**0.081 J**	**0.0709 J**	**0.0768 J**	**0.0744 J**	**0.0773 J**	**0.0734 J**
PCB-072	E1668C	**0.18 J**	**0.155 J**	**0.18 J**	**0.171 J**	**0.175 J**	**0.165 J**
PCB-073	E1668C	**0.104 J**	**0.0863 J**	**0.107 J**	**0.11 J**	**0.119 J**	**0.111 J**
PCB-077	E1668C	**0.0599 J**	**0.0717 J**	**0.0953 J**	**0.103 J**	**0.0789 J**	**0.0817 J**
PCB-078	E1668C	0.00955 UJ	0.00956 UJ	0.0133 UJ	0.0094 UJ	0.0105 UJ	0.00836 UJ
PCB-079	E1668C	**0.157 J**	**0.147 J**	**0.188 J**	**0.161 J**	**0.158 J**	**0.151 J**
PCB-080	E1668C	0.00687 UJ	0.00687 UJ	0.00945 UJ	0.00675 UJ	0.00755 UJ	0.00598 UJ
PCB-081	E1668C	0.00911 UJ	0.0091 UJ	0.0127 UJ	0.00896 UJ	0.010 UJ	0.00797 UJ
PCB-082	E1668C	**1.894 J**	**1.92 J**	**2 J**	**1.975 J**	**1.981 J**	**1.869 J**
PCB-083	E1668C	**0.807 J**	**0.841 J**	**1.397 J**	**0.73 J**	**0.631 J**	**1.239 J**
PCB-084	E1668C	**12.196 J**	**11.834 J**	**12.771 J**	**13.015 J**	**12.984 J**	**12.187 J**
PCB-085/116	E1668C	**4.213 J**	**4.252 J**	**4.537 J**	**4.204 J**	**3.99 J**	**3.926 J**
PCB-086/087/097/109/	E1668C	**21.62 J**	**21.831 J**	**23.24 J**	**22.339 J**	**22.157 J**	**21.104 J**
PCB-088	E1668C	0.29 UJ	0.294 UJ	0.317 UJ	0.291 UJ	0.285 UJ	0.274 UJ
PCB-089	E1668C	0.253 UJ	0.256 UJ	0.275 UJ	0.272 UJ	0.265 UJ	0.255 UJ
PCB-090/101/113	E1668C	**51.456 J**	**51.672 J**	**54.895 J**	**54.349 J**	**53.836 J**	**51.067 J**
PCB-091	E1668C	**8.433 J**	**8.105 J**	**8.912 J**	**9.674 J**	**9.593 J**	**8.936 J**
PCB-092	E1668C	**11.902 J**	**11.741 J**	**12.69 J**	**12.462 J**	**12.263 J**	**11.633 J**
PCB-093/100	E1668C	**1.156 J**	**1.106 J**	**1.184 J**	0.324 UJ	**1.209 J**	**1.218 J**
PCB-094	E1668C	**0.447 J**	**0.432 J**	**0.493 J**	**0.485 J**	**0.484 J**	**0.445 J**
PCB-095	E1668C	**83.407 J**	**80.756 J**	**88.511 J**	**88.862 J**	**88.224 J**	**81.998 J**
PCB-096	E1668C	**0.699 J**	**0.853 J**	**0.73 J**	**0.727 J**	**0.735 J**	**0.704 J**
PCB-098	E1668C	0.209 UJ	0.212 UJ	0.228 UJ	0.255 UJ	0.249 UJ	0.239 UJ
PCB-099	E1668C	**13.97 J**	**14.076 J**	**14.858 J**	**14.247 J**	**14.157 J**	**12.984 J**
PCB-102	E1668C	**1.036 J**	**1.069 J**	**1.199 J**	**0.931 J**	**1.028 J**	**0.972 J**
PCB-103	E1668C	**1.43 J**	**1.35 J**	**1.535 J**	**1.53 J**	**1.509 J**	**1.405 J**
PCB-104	E1668C	**0.0597 J**	**0.0693 J**	**0.0639 J**	**0.062 J**	**0.0673 J**	**0.0629 J**
PCB-105	E1668C	**1.427 J**	**1.372 J**	**1.424 J**	**1.394 J**	**1.505 J**	**1.387 J**
PCB-106	E1668C	0.0547 UJ	0.0552 UJ	0.0566 UJ	0.0595 UJ	0.0579 UJ	0.0553 UJ
PCB-107	E1668C	**0.395 J**	**0.407 J**	**0.409 J**	**0.414 J**	**0.405 J**	**0.39 J**
PCB-108/124	E1668C	**0.32 J**	**0.329 J**	**0.327 J**	**0.328 J**	**0.327 J**	**0.312 J**

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID / Sample Date / Sample ID / Method	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-5-PAC-A	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-5-PAC-B	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-2-GAC-A	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-2-GAC-B	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-5-GAC-A	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-5-GAC-B
PCB-110	E1668C	**22.851 J**	**23.235 J**	**23.879 J**	**25.396 J**	**25.455 J**	**24.106 J**
PCB-111	E1668C	0.0477 UJ	0.048 UJ	0.0479 UJ	0.0489 UJ	0.0474 UJ	0.0453 UJ
PCB-112	E1668C	0.0752 UJ	0.0759 UJ	0.0801 UJ	0.0783 UJ	0.0764 UJ	0.0733 UJ
PCB-114	E1668C	**0.0552 J**	**0.0892 J**	**0.0818 J**	**0.0716 J**	**0.0746 J**	**0.0784 J**
PCB-115	E1668C	0.0789 UJ	0.0796 UJ	0.0835 UJ	0.0765 UJ	0.0745 UJ	0.0716 UJ
PCB-117	E1668C	**0.41 J**	**0.416 J**	**0.408 J**	**0.405 J**	**0.382 J**	**0.37 J**
PCB-118	E1668C	**4.663 J**	**5.025 J**	**4.593 J**	**4.667 J**	**4.374 J**	**4.617 J**
PCB-120	E1668C	**0.0596 J**	**0.061 J**	**0.0607 J**	**0.0606 J**	**0.0602 J**	**0.0557 J**
PCB-121	E1668C	0.0539 UJ	0.0545 UJ	0.0558 UJ	0.0581 UJ	0.0565 UJ	0.0541 UJ
PCB-122	E1668C	**0.0778 J**	**0.0989 J**	**0.103 J**	**0.0785 J**	**0.095 J**	**0.101 J**
PCB-123	E1668C	**0.107 J**	**0.107 J**	**0.112 J**	**0.113 J**	**0.116 J**	**0.11 J**
PCB-126	E1668C	**0.0105 J**	**0.0108 J**	**0.0132 J**	**0.0166 J**	**0.0114 J**	**0.0118 J**
PCB-127	E1668C	0.032 UJ	0.0314 UJ	0.0315 UJ	0.0274 UJ	0.0322 UJ	0.0273 UJ
PCB-128/166	E1668C	**2.661 J**	**2.455 J**	**2.81 J**	**2.619 J**	**2.491 J**	**2.461 J**
PCB-129/138/163	E1668C	**32.037 J**	**31.595 J**	**32.819 J**	**32.48 J**	**30.891 J**	**32.36 J**
PCB-130	E1668C	**1.381 J**	**1.336 J**	**1.399 J**	**1.381 J**	**1.289 J**	**1.374 J**
PCB-131	E1668C	**0.431 J**	**0.399 J**	**0.458 J**	**0.436 J**	**0.414 J**	**0.427 J**
PCB-132	E1668C	**16.556 J**	**16.294 J**	**17.69 J**	**17.005 J**	**16.122 J**	**16.968 J**
PCB-133	E1668C	**0.431 J**	**0.413 J**	**0.432 J**	**0.422 J**	**0.397 J**	**0.42 J**
PCB-134	E1668C	**3.069 J**	**2.986 J**	**3.331 J**	**3.305 J**	**3.206 J**	**3.389 J**
PCB-135/151	E1668C	**28.313 J**	**26.981 J**	**29.516 J**	**29.196 J**	**27.368 J**	**28.853 J**
PCB-136	E1668C	**12.288 J**	**11.604 J**	**12.322 J**	**12.792 J**	**12.274 J**	**11.877 J**
PCB-137	E1668C	**0.501 J**	**0.492 J**	**0.497 J**	**0.494 J**	**0.527 J**	**0.568 J**
PCB-139/140	E1668C	**0.459 J**	**0.434 J**	**0.489 J**	**0.466 J**	**0.433 J**	**0.46 J**
PCB-141	E1668C	**7.684 J**	**7.467 J**	**7.876 J**	**7.659 J**	**7.069 J**	**7.539 J**
PCB-142	E1668C	0.00187 UJ	0.00209 UJ	0.00209 UJ	0.00134 UJ	0.0021 UJ	0.00154 UJ
PCB-143	E1668C	0.0015 UJ	0.00167 UJ	0.00164 UJ	0.000995 UJ	0.00156 UJ	0.00113 UJ
PCB-144	E1668C	**2.941 J**	**2.776 J**	**3.151 J**	**3.012 J**	**2.78 J**	**2.977 J**
PCB-145	E1668C	**0.029 J**	**0.0312 J**	**0.0326 J**	**0.036 J**	**0.037 J**	0.00218 UJ
PCB-146	E1668C	**3.974 J**	**3.823 J**	**3.926 J**	**3.797 J**	**3.51 J**	**3.762 J**
PCB-147/149	E1668C	**48.345 J**	**47.298 J**	**50.75 J**	**48.766 J**	**47.272 J**	**48.91 J**
PCB-148	E1668C	**0.105 J**	**0.0979 J**	**0.11 J**	**0.108 J**	**0.0994 J**	**0.107 J**
PCB-150	E1668C	**0.304 J**	**0.279 J**	**0.337 J**	**0.335 J**	**0.303 J**	**0.298 J**
PCB-152	E1668C	**0.161 J**	**0.154 J**	**0.173 J**	**0.176 J**	**0.175 J**	**0.17 J**
PCB-153/168	E1668C	**24.023 J**	**23.365 J**	**23.151 J**	**23.041 J**	**21.431 J**	**22.547 J**
PCB-154	E1668C	**0.573 J**	**0.533 J**	**0.619 J**	**0.607 J**	**0.567 J**	**0.607 J**
PCB-155	E1668C	**0.00302 J**	**0.00284 J**	**0.0031 J**	**0.00315 J**	**0.0029 J**	**0.00302 J**
PCB-156/157	E1668C	**0.639 J**	**0.607 J**	**0.517 J**	**0.534 J**	**0.493 J**	**0.509 J**
PCB-158	E1668C	**1.657 J**	**1.595 J**	**1.514 J**	**1.545 J**	**1.429 J**	**1.509 J**
PCB-159	E1668C	**0.365 J**	**0.317 J**	**0.331 J**	**0.329 J**	**0.291 J**	**0.298 J**
PCB-160	E1668C	0.00065 UJ	0.000721 UJ	0.000644 UJ	0.000418 UJ	0.000648 UJ	0.000466 UJ
PCB-161	E1668C	0.000438 UJ	0.000484 UJ	0.000391 UJ	0.000284 UJ	0.000436 UJ	0.000312 UJ
PCB-162	E1668C	**0.0395 J**	**0.0339 J**	**0.0317 J**	**0.0303 J**	**0.0295 J**	**0.0263 J**
PCB-164	E1668C	**1.456 J**	**1.418 J**	**1.327 J**	**1.349 J**	**1.212 J**	**1.272 J**
PCB-165	E1668C	**0.0239 J**	**0.0219 J**	**0.0161 J**	**0.0267 J**	0.000518 UJ	**0.028 J**

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-5-PAC-A	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-5-PAC-B	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-2-GAC-A	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-2-GAC-B	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-5-GAC-A	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-5-GAC-B
PCB-167	E1668C	**0.333 J**	**0.305 J**	**0.256 J**	**0.279 J**	**0.258 J**	**0.246 J**
PCB-169	E1668C	**0.0528 J**	**0.0462 J**	**0.0577 J**	**0.0551 J**	**0.0483 J**	**0.0505 J**
PCB-170	E1668C	**4.389 J**	**4.046 J**	**3.748 J**	**3.997 J**	**3.414 J**	**3.675 J**
PCB-171/173	E1668C	**2.04 J**	**1.885 J**	**2.161 J**	**2.066 J**	**1.731 J**	**2.006 J**
PCB-172	E1668C	**0.81 J**	**0.734 J**	**0.646 J**	**0.689 J**	**0.57 J**	**0.646 J**
PCB-174	E1668C	**8.699 J**	**8.11 J**	**9.132 J**	**8.568 J**	**7.278 J**	**8.307 J**
PCB-175	E1668C	**0.303 J**	**0.284 J**	**0.31 J**	**0.302 J**	**0.254 J**	**0.292 J**
PCB-176	E1668C	**2.919 J**	**2.397 J**	**3.967 J**	**3.104 J**	**2.595 J**	**3.063 J**
PCB-177	E1668C	**4.375 J**	**4.097 J**	**4.753 J**	**4.59 J**	**3.83 J**	**4.447 J**
PCB-178	E1668C	**2.333 J**	**1.965 J**	**2.469 J**	**2.124 J**	**1.784 J**	**1.995 J**
PCB-179	E1668C	**10.805 J**	**9.063 J**	**14.958 J**	**11.721 J**	**9.935 J**	**11.353 J**
PCB-180/193	E1668C	**9.804 J**	**8.982 J**	**7.431 J**	**8.211 J**	**6.859 J**	**7.583 J**
PCB-181	E1668C	**0.0315 J**	**0.0286 J**	**0.0337 J**	**0.0329 J**	**0.0267 J**	**0.0316 J**
PCB-182	E1668C	**0.0251 J**	**0.0217 J**	**0.0255 J**	**0.0247 J**	**0.0229 J**	**0.0247 J**
PCB-183	E1668C	**3.946 J**	**3.621 J**	**3.936 J**	**3.882 J**	**3.216 J**	**3.723 J**
PCB-184	E1668C	**0.00744 J**	**0.00545 J**	**0.00952 J**	**0.00709 J**	0.000667 UJ	**0.00633 J**
PCB-185	E1668C	**1.133 J**	**1.054 J**	**1.08 J**	**1.143 J**	**0.964 J**	**1.111 J**
PCB-186	E1668C	**0.00226 J**	0.000875 UJ	0.000886 UJ	0.000623 UJ	0.000817 UJ	0.000701 UJ
PCB-187	E1668C	**8.634 J**	**8.034 J**	**8.484 J**	**8.51 J**	**7.186 J**	**8.165 J**
PCB-188	E1668C	**0.0181 J**	**0.0149 J**	**0.0256 J**	**0.0193 J**	**0.0154 J**	**0.0187 J**
PCB-189	E1668C	**0.104 J**	**0.0852 J**	**0.0369 J**	**0.0608 J**	**0.0472 J**	**0.0484 J**
PCB-190	E1668C	**0.855 J**	**0.786 J**	**0.532 J**	**0.651 J**	**0.558 J**	**0.557 J**
PCB-191	E1668C	**0.162 J**	**0.147 J**	**0.0868 J**	**0.113 J**	**0.0945 J**	**0.0985 J**
PCB-192	E1668C	0.00115 UJ	0.00127 UJ	0.000549 UJ	0.000792 UJ	0.000678 UJ	0.000727 UJ
PCB-194	E1668C	**1.274 J**	**0.978 J**	**0.44 J**	**0.685 J**	**0.501 J**	**0.545 J**
PCB-195	E1668C	**0.692 J**	**0.541 J**	**0.432 J**	**0.462 J**	**0.349 J**	**0.406 J**
PCB-196	E1668C	**0.93 J**	**0.738 J**	**0.483 J**	**0.563 J**	**0.46 J**	**0.522 J**
PCB-197	E1668C	**0.0971 J**	**0.0805 J**	**0.0989 J**	**0.0804 J**	**0.0674 J**	**0.0826 J**
PCB-198/199	E1668C	**1.969 J**	**1.581 J**	**1.086 J**	**1.218 J**	**1.001 J**	**1.153 J**
PCB-200	E1668C	**0.406 J**	**0.339 J**	**0.449 J**	**0.355 J**	**0.305 J**	**0.377 J**
PCB-201	E1668C	**0.326 J**	**0.262 J**	**0.191 J**	**0.202 J**	**0.167 J**	**0.191 J**
PCB-202	E1668C	**0.458 J**	**0.37 J**	**0.46 J**	**0.374 J**	**0.319 J**	**0.382 J**
PCB-203	E1668C	**1.074 J**	**0.86 J**	**0.561 J**	**0.65 J**	**0.533 J**	**0.604 J**
PCB-204	E1668C	**0.000417 J**	0.000222 UJ	**0.000527 J**	**0.000402 J**	0.000239 UJ	**0.000407 J**
PCB-205	E1668C	**0.089 J**	**0.0681 J**	**0.0176 J**	**0.0395 J**	**0.0289 J**	**0.0288 J**
PCB-206	E1668C	**0.261 J**	**0.192 J**	**0.0419 J**	**0.106 J**	**0.0743 J**	**0.0761 J**
PCB-207	E1668C	**0.0338 J**	**0.0269 J**	**0.0163 J**	**0.0209 J**	**0.0154 J**	**0.0169 J**
PCB-208	E1668C	**0.0473 J**	**0.0369 J**	**0.0244 J**	**0.0298 J**	**0.0219 J**	**0.0243 J**
PCB-209	E1668C	**0.00829 J**	**0.00594 J**	**0.00254 J**	**0.00413 J**	**0.003 J**	**0.00272 J**
Total PCB Congener (U	Calculated	**570 J**	**540 J**	**590 J**	**580 J**	**560 J**	**550 J**

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Method	Location ID / Sample Date / Sample ID	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-5-BIOC-A	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-5-BIOC-B	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-10-BIOC-A	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-10-BIOC-B	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-CTRL-A-241030
PCB Congeners (SPME) (ng/L)							
PCB-001	E1668C		0.059 UJ	0.0926 UJ	**0.0743 J**	0.0549 UJ	**0.102 J**
PCB-002	E1668C		0.0183 UJ	0.0372 UJ	0.015 UJ	0.018 UJ	**0.00633 J**
PCB-003	E1668C		0.0202 UJ	0.041 UJ	0.0166 UJ	0.0198 UJ	**0.00568 J**
PCB-004	E1668C		**0.269 J**	**0.19 J**	**0.254 J**	**0.239 J**	**0.597 J**
PCB-005	E1668C		0.0132 UJ	0.0386 UJ	0.0228 UJ	0.0141 UJ	**0.00819 J**
PCB-006	E1668C		**0.0327 J**	0.0277 UJ	**0.028 J**	**0.0215 J**	**0.0824 J**
PCB-007	E1668C		0.0104 UJ	0.032 UJ	0.018 UJ	0.0111 UJ	**0.00685 J**
PCB-008	E1668C		**0.0584 J**	0.0262 UJ	**0.0601 J**	**0.0481 J**	**0.138 J**
PCB-009	E1668C		0.00958 UJ	0.0292 UJ	0.0165 UJ	0.0101 UJ	**0.0149 J**
PCB-010	E1668C		0.0237 UJ	0.0413 UJ	0.0154 UJ	0.0323 UJ	**0.0216 J**
PCB-011	E1668C		0.00608 UJ	0.0207 UJ	0.0105 UJ	0.00647 UJ	0.0269 UJ
PCB-012/013	E1668C		0.0077 UJ	0.0254 UJ	0.0133 UJ	0.00826 UJ	**0.0115 J**
PCB-014	E1668C		0.00668 UJ	0.0227 UJ	0.0115 UJ	0.00703 UJ	0.00151 UJ
PCB-015	E1668C		**0.0427 J**	**0.0577 J**	**0.0655 J**	**0.055 J**	**0.0507 J**
PCB-016	E1668C		**0.0406 J**	0.0364 UJ	**0.0441 J**	**0.0366 J**	**0.14 J**
PCB-017	E1668C		**0.264 J**	**0.153 J**	**0.241 J**	**0.23 J**	**0.348 J**
PCB-018/030	E1668C		**0.155 J**	**0.0807 J**	**0.154 J**	**0.148 J**	**0.345 J**
PCB-019	E1668C		**0.0353 J**	0.0407 UJ	**0.032 J**	**0.0349 J**	**0.116 J**
PCB-020/028	E1668C		**0.198 J**	**0.117 J**	**0.172 J**	**0.183 J**	**0.259 J**
PCB-021/033	E1668C		**0.0733 J**	**0.0267 J**	**0.053 J**	**0.0703 J**	**0.0964 J**
PCB-022	E1668C		**0.0207 J**	0.0132 UJ	**0.0215 J**	**0.0204 J**	**0.04 J**
PCB-023	E1668C		0.00546 UJ	0.0156 UJ	0.00591 UJ	0.00679 UJ	0.00104 UJ
PCB-024	E1668C		0.0052 UJ	0.0181 UJ	0.00609 UJ	0.00604 UJ	**0.00684 J**
PCB-025	E1668C		**0.0613 J**	**0.0284 J**	**0.0586 J**	**0.0569 J**	**0.078 J**
PCB-026/029	E1668C		**0.14 J**	**0.0888 J**	**0.134 J**	**0.125 J**	**0.212 J**
PCB-027	E1668C		**0.0348 J**	**0.0258 J**	**0.0324 J**	**0.0332 J**	**0.0555 J**
PCB-031	E1668C		**0.164 J**	**0.1 J**	**0.149 J**	**0.15 J**	**0.212 J**
PCB-032	E1668C		**0.111 J**	**0.0573 J**	**0.105 J**	**0.103 J**	**0.149 J**
PCB-034	E1668C		0.00453 UJ	0.0136 UJ	0.0049 UJ	0.00566 UJ	**0.00437 J**
PCB-035	E1668C		0.00299 UJ	0.00984 UJ	0.00323 UJ	0.00375 UJ	**0.00297 J**
PCB-036	E1668C		0.00229 UJ	0.00782 UJ	0.00248 UJ	0.00286 UJ	0.000468 UJ
PCB-037	E1668C		**0.0597 J**	**0.0389 J**	**0.0521 J**	**0.0499 J**	**0.0419 J**
PCB-038	E1668C		**0.00757 J**	0.0102 UJ	**0.00752 J**	**0.00813 J**	**0.00645 J**
PCB-039	E1668C		0.0025 UJ	0.00857 UJ	0.0027 UJ	0.00309 UJ	**0.00293 J**
PCB-040/071	E1668C		**0.927 J**	**0.498 J**	**0.848 J**	**0.849 J**	**0.945 J**
PCB-041	E1668C		0.00429 UJ	0.013 UJ	0.00519 UJ	0.00345 UJ	**0.0233 J**
PCB-042	E1668C		**0.763 J**	**0.399 J**	**0.7 J**	**0.651 J**	**0.765 J**
PCB-043	E1668C		**0.0372 J**	**0.0208 J**	**0.0336 J**	**0.0352 J**	**0.0464 J**
PCB-044/047/065	E1668C		**6.198 J**	**2.992 J**	**5.522 J**	**5.373 J**	**6.491 J**
PCB-045	E1668C		**0.217 J**	**0.107 J**	**0.209 J**	**0.168 J**	**0.178 J**
PCB-046	E1668C		**0.0528 J**	**0.019 J**	**0.0466 J**	**0.0458 J**	**0.0562 J**
PCB-048	E1668C		**0.0613 J**	**0.024 J**	**0.056 J**	**0.0561 J**	**0.0839 J**
PCB-049/069	E1668C		**7.835 J**	**3.998 J**	**6.818 J**	**6.614 J**	**7.56 J**
PCB-050/053	E1668C		**1.502 J**	**0.699 J**	**1.318 J**	**1.234 J**	**1.373 J**

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Method	Location ID Sample Date Sample ID	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-5-BIOC-A	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-5-BIOC-B	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-10-BIOC-A	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-10-BIOC-B	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-CTRL-A-241030
PCB-051	E1668C		**0.297 J**	**0.112 J**	**0.254 J**	**0.253 J**	**0.323 J**
PCB-052	E1668C		**29.849 J**	**13.861 J**	**26.025 J**	**25.391 J**	**27.868 J**
PCB-054	E1668C		**0.0656 J**	**0.0338 J**	**0.0569 J**	**0.0625 J**	**0.0758 J**
PCB-055	E1668C		0.0137 UJ	0.0136 UJ	0.0132 UJ	0.011 UJ	0.0215 UJ
PCB-056	E1668C		**0.182 J**	**0.135 J**	**0.164 J**	**0.166 J**	**0.181 J**
PCB-057	E1668C		0.0134 UJ	0.0138 UJ	0.0129 UJ	0.0107 UJ	0.0199 UJ
PCB-058	E1668C		0.0118 UJ	0.0121 UJ	0.0114 UJ	0.00932 UJ	0.0177 UJ
PCB-059/062/075	E1668C		**0.329 J**	**0.169 J**	**0.293 J**	**0.28 J**	**0.313 J**
PCB-060	E1668C		**0.0323 J**	**0.0242 J**	0.0159 UJ	**0.0286 J**	0.0266 UJ
PCB-061/070/074/076	E1668C		**3.342 J**	**2.083 J**	**3.004 J**	**2.98 J**	**3.582 J**
PCB-063	E1668C		**0.0269 J**	**0.0141 J**	**0.0234 J**	**0.0235 J**	0.0212 UJ
PCB-064	E1668C		**1.206 J**	**0.733 J**	**1.079 J**	**1.038 J**	**1.189 J**
PCB-066	E1668C		**1.312 J**	**0.921 J**	**1.205 J**	**1.173 J**	**1.389 J**
PCB-067	E1668C		**0.0257 J**	**0.01 J**	**0.0208 J**	**0.0245 J**	0.0164 UJ
PCB-068	E1668C		**0.0719 J**	**0.0444 J**	**0.063 J**	**0.0643 J**	**0.0627 J**
PCB-072	E1668C		**0.161 J**	**0.0995 J**	**0.143 J**	**0.14 J**	**0.148 J**
PCB-073	E1668C		**0.0984 J**	**0.0597 J**	**0.0831 J**	**0.0953 J**	**0.0898 J**
PCB-077	E1668C		**0.0872 J**	**0.0852 J**	**0.127 J**	**0.0754 J**	**0.0338 J**
PCB-078	E1668C		0.0089 UJ	0.0101 UJ	0.00851 UJ	0.00716 UJ	0.0151 UJ
PCB-079	E1668C		**0.144 J**	**0.0832 J**	**0.119 J**	**0.12 J**	**0.114 J**
PCB-080	E1668C		0.00649 UJ	0.00786 UJ	0.00617 UJ	0.00516 UJ	0.0101 UJ
PCB-081	E1668C		0.00849 UJ	0.00965 UJ	0.00811 UJ	0.00698 UJ	0.0146 UJ
PCB-082	E1668C		**1.763 J**	**1.032 J**	**1.548 J**	**1.529 J**	**2.178 J**
PCB-083	E1668C		**1.356 J**	**0.544 J**	**0.806 J**	0.175 UJ	0.209 UJ
PCB-084	E1668C		**11.531 J**	**5.197 J**	**10.018 J**	**9.421 J**	**13.279 J**
PCB-085/116	E1668C		**3.686 J**	**1.935 J**	**3.27 J**	**3.273 J**	**3.956 J**
PCB-086/087/097/109/	E1668C		**19.715 J**	**9.769 J**	**17.155 J**	**16.989 J**	**22.768 J**
PCB-088	E1668C		0.224 UJ	0.0941 UJ	0.242 UJ	0.197 UJ	0.276 UJ
PCB-089	E1668C		0.209 UJ	0.0876 UJ	0.226 UJ	0.169 UJ	0.241 UJ
PCB-090/101/113	E1668C		**48.151 J**	**23.153 J**	**41.519 J**	**41.105 J**	**30.032 J**
PCB-091	E1668C		**8.407 J**	**3.658 J**	**7.303 J**	**6.393 J**	**8.764 J**
PCB-092	E1668C		**10.786 J**	**5.216 J**	**9.36 J**	**9.194 J**	**12.783 J**
PCB-093/100	E1668C		0.249 UJ	**0.397 J**	**0.943 J**	**0.869 J**	**1.236 J**
PCB-094	E1668C		**0.415 J**	**0.167 J**	**0.359 J**	**0.339 J**	**0.457 J**
PCB-095	E1668C		**79.07 J**	**32.898 J**	**66.394 J**	**63.332 J**	**50.756 J**
PCB-096	E1668C		**0.623 J**	**0.222 J**	**0.603 J**	**0.582 J**	**0.734 J**
PCB-098	E1668C		0.196 UJ	0.0854 UJ	0.212 UJ	0.138 UJ	0.192 UJ
PCB-099	E1668C		**11.895 J**	**5.879 J**	**10.7 J**	**9.807 J**	**14.27 J**
PCB-102	E1668C		**0.896 J**	**0.411 J**	**0.783 J**	**0.787 J**	**1.172 J**
PCB-103	E1668C		**1.297 J**	**0.584 J**	**1.147 J**	**1.089 J**	**1.528 J**
PCB-104	E1668C		**0.053 J**	0.0138 UJ	**0.052 J**	**0.0463 J**	**0.0628 J**
PCB-105	E1668C		**1.258 J**	**0.983 J**	**1.209 J**	**1.18 J**	**1.62 J**
PCB-106	E1668C		0.0489 UJ	0.0274 UJ	0.0516 UJ	0.0388 UJ	0.0567 UJ
PCB-107	E1668C		**0.395 J**	**0.286 J**	**0.329 J**	**0.332 J**	**0.439 J**
PCB-108/124	E1668C		**0.312 J**	**0.225 J**	**0.267 J**	**0.268 J**	**0.334 J**

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID / Sample Date / Sample ID / Method	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-5-BIOC-A	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-5-BIOC-B	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-10-BIOC-A	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-10-BIOC-B	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-CTRL-A-241030
PCB-110	E1668C	**23.356 J**	**13.774 J**	**20.076 J**	**19.519 J**	**18.525 J**
PCB-111	E1668C	0.0419 UJ	0.0242 UJ	0.0436 UJ	0.0328 UJ	0.0442 UJ
PCB-112	E1668C	0.0619 UJ	0.032 UJ	0.0664 UJ	0.0504 UJ	0.0702 UJ
PCB-114	E1668C	**0.056 J**	**0.0404 J**	**0.0618 J**	**0.0608 J**	**0.0857 J**
PCB-115	E1668C	0.0608 UJ	0.0321 UJ	0.0651 UJ	0.0516 UJ	0.0617 UJ
PCB-117	E1668C	**0.379 J**	**0.193 J**	**0.355 J**	**0.325 J**	**0.527 J**
PCB-118	E1668C	**4.326 J**	**3.253 J**	**4.231 J**	**4.031 J**	**5.375 J**
PCB-120	E1668C	**0.053 J**	**0.0354 J**	**0.0496 J**	**0.0458 J**	**0.0548 J**
PCB-121	E1668C	0.0477 UJ	0.0267 UJ	0.0504 UJ	0.0371 UJ	0.0486 UJ
PCB-122	E1668C	**0.089 J**	**0.0663 J**	**0.082 J**	**0.0823 J**	**0.103 J**
PCB-123	E1668C	**0.103 J**	**0.0788 J**	**0.0866 J**	**0.0897 J**	**0.114 J**
PCB-126	E1668C	**0.0121 J**	**0.0118 J**	**0.0181 J**	**0.0106 J**	0.000687 UJ
PCB-127	E1668C	0.0283 UJ	0.0158 UJ	0.0295 UJ	0.0267 UJ	0.0312 UJ
PCB-128/166	E1668C	**2.255 J**	**1.373 J**	**2.256 J**	**2.145 J**	**2.715 J**
PCB-129/138/163	E1668C	**29.263 J**	**17.968 J**	**28.094 J**	**27.181 J**	**20.219 J**
PCB-130	E1668C	**1.248 J**	**0.813 J**	**1.195 J**	**1.137 J**	**1.615 J**
PCB-131	E1668C	**0.367 J**	**0.215 J**	**0.371 J**	**0.333 J**	**0.505 J**
PCB-132	E1668C	**14.351 J**	**7.523 J**	**13.874 J**	**13.305 J**	**17.632 J**
PCB-133	E1668C	**0.389 J**	**0.24 J**	**0.373 J**	**0.352 J**	**0.488 J**
PCB-134	E1668C	**2.823 J**	**1.516 J**	**2.791 J**	**2.554 J**	**3.832 J**
PCB-135/151	E1668C	**24.429 J**	**11.706 J**	**23.625 J**	**22.5 J**	**25.357 J**
PCB-136	E1668C	**9.931 J**	**4.775 J**	**9.507 J**	**9.301 J**	**13.281 J**
PCB-137	E1668C	**0.455 J**	**0.332 J**	**0.468 J**	**0.5 J**	**0.709 J**
PCB-139/140	E1668C	**0.384 J**	**0.224 J**	**0.383 J**	**0.364 J**	**0.534 J**
PCB-141	E1668C	**6.907 J**	**4.02 J**	**6.536 J**	**6.336 J**	**8.312 J**
PCB-142	E1668C	0.00194 UJ	0.0113 UJ	0.00178 UJ	0.00169 UJ	0.0000718 UJ
PCB-143	E1668C	0.00147 UJ	0.00884 UJ	0.00134 UJ	0.00131 UJ	0.0000531 UJ
PCB-144	E1668C	**2.467 J**	**1.299 J**	**2.416 J**	**2.298 J**	**3.456 J**
PCB-145	E1668C	**0.0226 J**	0.0116 UJ	0.00193 UJ	**0.0231 J**	**0.0412 J**
PCB-146	E1668C	**3.53 J**	**2.046 J**	**3.31 J**	**3.21 J**	**4.412 J**
PCB-147/149	E1668C	**42.516 J**	**22.316 J**	**41.704 J**	**39.266 J**	**21.004 J**
PCB-148	E1668C	**0.0905 J**	**0.0445 J**	**0.0888 J**	**0.0846 J**	**0.117 J**
PCB-150	E1668C	**0.226 J**	**0.0862 J**	**0.223 J**	**0.222 J**	**0.381 J**
PCB-152	E1668C	**0.124 J**	**0.0485 J**	**0.127 J**	**0.119 J**	**0.179 J**
PCB-153/168	E1668C	**22.302 J**	**13.292 J**	**20.982 J**	**20.502 J**	**10.289 J**
PCB-154	E1668C	**0.502 J**	**0.286 J**	**0.515 J**	**0.456 J**	**0.683 J**
PCB-155	E1668C	**0.00253 J**	0.00405 UJ	**0.00247 J**	**0.00244 J**	**0.00391 J**
PCB-156/157	E1668C	**0.65 J**	**0.377 J**	**0.573 J**	**0.558 J**	**0.591 J**
PCB-158	E1668C	**1.638 J**	**0.978 J**	**1.475 J**	**1.409 J**	**1.673 J**
PCB-159	E1668C	**0.362 J**	**0.156 J**	**0.327 J**	**0.295 J**	**0.286 J**
PCB-160	E1668C	0.000718 UJ	0.00445 UJ	0.000619 UJ	0.000587 UJ	0.0000217 UJ
PCB-161	E1668C	0.000561 UJ	0.00325 UJ	0.000462 UJ	0.000444 UJ	0.0000136 UJ
PCB-162	E1668C	**0.0383 J**	**0.0202 J**	**0.0323 J**	**0.0317 J**	**0.0228 J**
PCB-164	E1668C	**1.433 J**	**0.855 J**	**1.283 J**	**1.207 J**	**1.396 J**
PCB-165	E1668C	**0.0249 J**	**0.0108 J**	**0.0192 J**	0.000512 UJ	**0.0206 J**

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Method	Location ID Sample Date Sample ID	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-5-BIOC-A	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-5-BIOC-B	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-10-BIOC-A	VP12-B-C-1/2-BST 8/20/2024 HOUS-VP12-JAR-SPME-10-BIOC-B	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-CTRL-A-241030
PCB-167	E1668C		**0.358 J**	**0.188 J**	**0.316 J**	**0.304 J**	**0.291 J**
PCB-169	E1668C		**0.0444 J**	**0.0276 J**	**0.0488 J**	**0.0395 J**	0.00147 UJ
PCB-170	E1668C		**4.549 J**	**2.077 J**	**4.25 J**	**3.825 J**	**4.324 J**
PCB-171/173	E1668C		**1.864 J**	**0.935 J**	**1.742 J**	**1.723 J**	**2.348 J**
PCB-172	E1668C		**0.868 J**	**0.371 J**	**0.742 J**	**0.744 J**	**0.733 J**
PCB-174	E1668C		**7.765 J**	**3.664 J**	**7.363 J**	**7.363 J**	**6.745 J**
PCB-175	E1668C		**0.289 J**	**0.134 J**	**0.269 J**	**0.269 J**	**0.342 J**
PCB-176	E1668C		**2.155 J**	**0.986 J**	**2.067 J**	**2.073 J**	**4.877 J**
PCB-177	E1668C		**3.972 J**	**1.958 J**	**3.76 J**	**3.743 J**	**5.119 J**
PCB-178	E1668C		**2.092 J**	**0.866 J**	**1.796 J**	**1.825 J**	**2.919 J**
PCB-179	E1668C		**7.989 J**	**3.247 J**	**7.737 J**	**7.627 J**	**15.074 J**
PCB-180/193	E1668C		**10.921 J**	**4.393 J**	**9.245 J**	**9.196 J**	**4.731 J**
PCB-181	E1668C		**0.0287 J**	**0.0141 J**	**0.028 J**	**0.0277 J**	**0.0366 J**
PCB-182	E1668C		**0.0239 J**	**0.0116 J**	**0.0202 J**	**0.024 J**	**0.0261 J**
PCB-183	E1668C		**3.826 J**	**1.663 J**	**3.48 J**	**3.46 J**	**4.17 J**
PCB-184	E1668C		0.00075 UJ	0.00359 UJ	0.00050 UJ	**0.00449 J**	**0.0108 J**
PCB-185	E1668C		**1.028 J**	**0.493 J**	**0.966 J**	**0.953 J**	**1.225 J**
PCB-186	E1668C		0.00085 UJ	0.00399 UJ	0.000582 UJ	0.000748 UJ	**0.00378 J**
PCB-187	E1668C		**8.274 J**	**3.575 J**	**7.597 J**	**7.428 J**	**5.49 J**
PCB-188	E1668C		**0.0132 J**	**0.00589 J**	**0.0134 J**	**0.0133 J**	**0.0324 J**
PCB-189	E1668C		**0.142 J**	**0.0347 J**	**0.108 J**	**0.106 J**	**0.0445 J**
PCB-190	E1668C		**0.994 J**	**0.352 J**	**0.868 J**	**0.8 J**	**0.601 J**
PCB-191	E1668C		**0.211 J**	**0.0684 J**	**0.164 J**	**0.164 J**	**0.0994 J**
PCB-192	E1668C		0.00183 UJ	0.00196 UJ	0.00141 UJ	0.00117 UJ	0.000584 UJ
PCB-194	E1668C		**1.761 J**	**0.299 J**	**1.34 J**	**1.238 J**	**0.704 J**
PCB-195	E1668C		**0.808 J**	**0.218 J**	**0.658 J**	**0.614 J**	**0.681 J**
PCB-196	E1668C		**1.171 J**	**0.278 J**	**0.914 J**	**0.864 J**	**0.759 J**
PCB-197	E1668C		**0.0941 J**	**0.0389 J**	**0.0819 J**	**0.0781 J**	**0.139 J**
PCB-198/199	E1668C		**2.397 J**	**0.563 J**	**1.905 J**	**1.791 J**	**1.66 J**
PCB-200	E1668C		**0.388 J**	**0.163 J**	**0.355 J**	**0.337 J**	**0.713 J**
PCB-201	E1668C		**0.394 J**	**0.0885 J**	**0.312 J**	**0.289 J**	**0.301 J**
PCB-202	E1668C		**0.447 J**	**0.158 J**	**0.394 J**	**0.365 J**	**0.795 J**
PCB-203	E1668C		**1.354 J**	**0.313 J**	**1.05 J**	**1.014 J**	**0.883 J**
PCB-204	E1668C		**0.000467 J**	0.000802 UJ	**0.000384 J**	**0.000405 J**	**0.000747 J**
PCB-205	E1668C		**0.136 J**	**0.0141 J**	**0.0961 J**	**0.0909 J**	**0.0263 J**
PCB-206	E1668C		**0.397 J**	**0.0394 J**	**0.279 J**	**0.262 J**	**0.0773 J**
PCB-207	E1668C		**0.0481 J**	**0.0115 J**	**0.0383 J**	**0.0342 J**	**0.0249 J**
PCB-208	E1668C		**0.0633 J**	**0.015 J**	**0.0515 J**	**0.0467 J**	**0.0435 J**
PCB-209	E1668C		**0.0114 J**	**0.00228 J**	**0.00941 J**	**0.00785 J**	**0.00379 J**
Total PCB Congener (U	Calculated		**520 J**	**260 J**	**470 J**	**450 J**	**450 J**

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Method	Location ID Sample Date Sample ID VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-CTRL-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-1-PAC-A-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-1-PAC-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-2-PAC-A-241030
PCB Congeners (SPME) (ng/L)					
PCB-001	E1668C	**0.0833 J**	0.00639 UJ	0.00601 UJ	0.00531 UJ
PCB-002	E1668C	**0.00632 J**	0.00235 UJ	0.00224 UJ	0.00206 UJ
PCB-003	E1668C	**0.0057 J**	0.0024 UJ	0.00228 UJ	0.00209 UJ
PCB-004	E1668C	**0.504 J**	0.0049 UJ	0.00592 UJ	0.00508 UJ
PCB-005	E1668C	**0.00629 J**	0.00347 UJ	0.0023 UJ	0.00288 UJ
PCB-006	E1668C	**0.0683 J**	0.00235 UJ	0.00156 UJ	0.00195 UJ
PCB-007	E1668C	**0.00557 J**	0.00266 UJ	0.00176 UJ	0.00221 UJ
PCB-008	E1668C	**0.121 J**	0.0022 UJ	0.00146 UJ	0.00183 UJ
PCB-009	E1668C	**0.0118 J**	0.00251 UJ	0.00167 UJ	0.00209 UJ
PCB-010	E1668C	**0.0178 J**	0.00315 UJ	0.0038 UJ	0.00326 UJ
PCB-011	E1668C	0.0234 UJ	0.0238 UJ	0.0246 UJ	0.0351 UJ
PCB-012/013	E1668C	**0.0111 J**	0.00208 UJ	0.00138 UJ	0.00173 UJ
PCB-014	E1668C	0.00138 UJ	0.0018 UJ	0.00119 UJ	0.00149 UJ
PCB-015	E1668C	**0.0554 J**	0.00148 UJ	0.00098 UJ	0.00123 UJ
PCB-016	E1668C	**0.132 J**	0.00336 UJ	0.00222 UJ	0.00264 UJ
PCB-017	E1668C	**0.34 J**	0.00264 UJ	0.00175 UJ	0.00208 UJ
PCB-018/030	E1668C	**0.331 J**	0.0036 UJ	0.00286 UJ	0.00195 UJ
PCB-019	E1668C	**0.105 J**	0.00467 UJ	0.00309 UJ	0.00367 UJ
PCB-020/028	E1668C	**0.273 J**	0.00145 UJ	0.00167 UJ	0.00177 UJ
PCB-021/033	E1668C	**0.0933 J**	0.00144 UJ	0.00103 UJ	0.00115 UJ
PCB-022	E1668C	**0.0394 J**	0.00109 UJ	0.000778 UJ	0.00087 UJ
PCB-023	E1668C	0.00125 UJ	0.00123 UJ	0.000873 UJ	0.000976 UJ
PCB-024	E1668C	**0.00622 J**	0.00156 UJ	0.00103 UJ	0.00123 UJ
PCB-025	E1668C	**0.0769 J**	0.000808 UJ	0.000576 UJ	0.000645 UJ
PCB-026/029	E1668C	**0.216 J**	0.000989 UJ	0.00071 UJ	0.000793 UJ
PCB-027	E1668C	**0.0535 J**	0.00128 UJ	0.00085 UJ	0.00101 UJ
PCB-031	E1668C	**0.219 J**	0.00148 UJ	0.00134 UJ	0.00179 UJ
PCB-032	E1668C	**0.155 J**	0.00118 UJ	0.00078 UJ	0.000929 UJ
PCB-034	E1668C	**0.00475 J**	0.00103 UJ	0.000736 UJ	0.000823 UJ
PCB-035	E1668C	**0.00291 J**	0.000756 UJ	0.000539 UJ	0.000603 UJ
PCB-036	E1668C	0.000566 UJ	0.000554 UJ	0.000394 UJ	0.000441 UJ
PCB-037	E1668C	**0.0457 J**	0.000699 UJ	0.000501 UJ	0.00056 UJ
PCB-038	E1668C	**0.00629 J**	0.000789 UJ	0.000563 UJ	0.000629 UJ
PCB-039	E1668C	**0.00298 J**	0.000606 UJ	0.000432 UJ	0.000482 UJ
PCB-040/071	E1668C	**0.991 J**	0.0028 UJ	0.00294 UJ	0.00176 UJ
PCB-041	E1668C	**0.0175 J**	0.00115 UJ	0.000741 UJ	0.000742 UJ
PCB-042	E1668C	**0.788 J**	0.00238 UJ	0.00241 UJ	0.00125 UJ
PCB-043	E1668C	**0.0421 J**	0.000791 UJ	0.000508 UJ	0.000509 UJ
PCB-044/047/065	E1668C	**6.718 J**	0.0166 UJ	0.0175 UJ	0.00944 UJ
PCB-045	E1668C	**0.209 J**	0.00136 UJ	0.00106 UJ	0.000872 UJ
PCB-046	E1668C	**0.0586 J**	0.00156 UJ	0.000998 UJ	0.000999 UJ
PCB-048	E1668C	**0.0847 J**	0.000763 UJ	0.000686 UJ	0.000607 UJ
PCB-049/069	E1668C	**7.738 J**	0.0156 UJ	0.0176 UJ	0.00939 UJ
PCB-050/053	E1668C	**1.436 J**	0.0034 UJ	0.00369 UJ	0.00198 UJ

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-CTRL-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-1-PAC-A-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-1-PAC-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-2-PAC-A-241030
PCB-051	E1668C	**0.326 J**	0.00107 UJ	**0.00114 J**	0.000685 UJ
PCB-052	E1668C	**28.632 J**	**0.0556 J**	**0.0645 J**	0.0344 UJ
PCB-054	E1668C	**0.0823 J**	0.00129 UJ	0.00079 UJ	0.000799 UJ
PCB-055	E1668C	0.0238 UJ	0.000618 UJ	0.000559 UJ	0.000378 UJ
PCB-056	E1668C	**0.194 J**	0.000737 UJ	0.000582 UJ	0.000444 UJ
PCB-057	E1668C	0.022 UJ	0.000571 UJ	0.000519 UJ	0.00035 UJ
PCB-058	E1668C	0.0196 UJ	0.000507 UJ	0.000462 UJ	0.00031 UJ
PCB-059/062/075	E1668C	**0.331 J**	0.000808 UJ	0.000993 UJ	0.000534 UJ
PCB-060	E1668C	0.0295 UJ	0.000764 UJ	0.000697 UJ	0.000466 UJ
PCB-061/070/074/076	E1668C	**3.807 J**	0.00973 UJ	0.00994 UJ	0.00585 UJ
PCB-063	E1668C	0.0235 UJ	0.000609 UJ	0.000554 UJ	0.000372 UJ
PCB-064	E1668C	**1.251 J**	0.00254 UJ	0.00294 UJ	0.00172 UJ
PCB-066	E1668C	**1.5 J**	0.00316 UJ	0.00284 UJ	0.00214 UJ
PCB-067	E1668C	0.0181 UJ	0.00047 UJ	0.000428 UJ	0.000287 UJ
PCB-068	E1668C	**0.0674 J**	0.000471 UJ	0.000428 UJ	0.000287 UJ
PCB-072	E1668C	**0.159 J**	0.000439 UJ	0.000399 UJ	0.000268 UJ
PCB-073	E1668C	**0.0863 J**	0.000325 UJ	**0.000291 J**	0.000208 UJ
PCB-077	E1668C	**0.0389 J**	0.000594 UJ	0.000555 UJ	0.000341 UJ
PCB-078	E1668C	0.0167 UJ	0.000432 UJ	0.000392 UJ	0.000264 UJ
PCB-079	E1668C	**0.118 J**	**0.000553 J**	0.000279 UJ	0.000187 UJ
PCB-080	E1668C	0.0112 UJ	0.000289 UJ	0.000264 UJ	0.000178 UJ
PCB-081	E1668C	0.0162 UJ	0.000419 UJ	0.000382 UJ	0.000257 UJ
PCB-082	E1668C	**2.245 J**	**0.0101 J**	**0.0109 J**	**0.003 J**
PCB-083	E1668C	0.231 UJ	**0.0101 J**	**0.0117 J**	0.000727 UJ
PCB-084	E1668C	**13.623 J**	**0.0596 J**	**0.0682 J**	**0.0182 J**
PCB-085/116	E1668C	**4.11 J**	**0.0176 J**	**0.0185 J**	**0.00594 J**
PCB-086/087/097/109/	E1668C	**23.405 J**	**0.0971 J**	**0.106 J**	**0.032 J**
PCB-088	E1668C	0.305 UJ	0.00193 UJ	0.00143 UJ	0.000962 UJ
PCB-089	E1668C	0.266 UJ	0.00168 UJ	0.00124 UJ	0.000838 UJ
PCB-090/101/113	E1668C	**26.374 J**	**0.239 J**	**0.261 J**	**0.0772 J**
PCB-091	E1668C	**8.966 J**	**0.0411 J**	**0.0458 J**	**0.0128 J**
PCB-092	E1668C	**13.326 J**	**0.0609 J**	**0.0671 J**	**0.0188 J**
PCB-093/100	E1668C	**1.271 J**	**0.00708 J**	**0.00769 J**	**0.00207 J**
PCB-094	E1668C	**0.47 J**	**0.0027 J**	**0.00293 J**	0.000845 UJ
PCB-095	E1668C	**44.205 J**	**0.35 J**	**0.398 J**	**0.116 J**
PCB-096	E1668C	**0.784 J**	**0.00584 J**	**0.00618 J**	**0.00162 J**
PCB-098	E1668C	0.212 UJ	0.00134 UJ	0.000994 UJ	0.000669 UJ
PCB-099	E1668C	**14.044 J**	**0.0639 J**	**0.07 J**	**0.0212 J**
PCB-102	E1668C	**1.204 J**	**0.00622 J**	**0.00722 J**	**0.00181 J**
PCB-103	E1668C	**1.579 J**	**0.00675 J**	**0.00756 J**	**0.00215 J**
PCB-104	E1668C	**0.0667 J**	0.00139 UJ	0.000828 UJ	0.00106 UJ
PCB-105	E1668C	**1.716 J**	**0.0103 J**	**0.0108 J**	**0.00325 J**
PCB-106	E1668C	0.0626 UJ	0.000394 UJ	0.000292 UJ	0.000196 UJ
PCB-107	E1668C	**0.464 J**	**0.00235 J**	**0.00257 J**	**0.000729 J**
PCB-108/124	E1668C	**0.347 J**	**0.0017 J**	**0.00189 J**	**0.000575 J**

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Method	Location ID Sample Date Sample ID VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-CTRL-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-1-PAC-A-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-1-PAC-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-2-PAC-A-241030
PCB-110	E1668C	**16.004 J**	**0.115 J**	**0.125 J**	**0.041 J**
PCB-111	E1668C	0.0488 UJ	0.000306 UJ	0.000227 UJ	0.000153 UJ
PCB-112	E1668C	0.0775 UJ	0.000489 UJ	0.000363 UJ	0.000243 UJ
PCB-114	E1668C	0.067 UJ	**0.000937 J**	**0.00105 J**	0.000198 UJ
PCB-115	E1668C	0.068 UJ	0.000428 UJ	0.000317 UJ	0.000214 UJ
PCB-117	E1668C	**0.574 J**	**0.00199 J**	**0.00324 J**	**0.000568 J**
PCB-118	E1668C	**5.57 J**	**0.0223 J**	**0.0237 J**	**0.00906 J**
PCB-120	E1668C	**0.0586 J**	**0.000542 J**	**0.00055 J**	0.000117 UJ
PCB-121	E1668C	0.0537 UJ	0.000338 UJ	0.00025 UJ	0.000168 UJ
PCB-122	E1668C	**0.112 J**	0.000502 UJ	**0.000641 J**	0.000237 UJ
PCB-123	E1668C	**0.116 J**	**0.000685 J**	**0.000705 J**	0.000171 UJ
PCB-126	E1668C	0.000587 UJ	0.000223 UJ	0.000163 UJ	0.000147 UJ
PCB-127	E1668C	0.0325 UJ	0.000214 UJ	**0.000235 J**	0.000105 UJ
PCB-128/166	E1668C	**2.738 J**	**0.0782 J**	**0.0836 J**	**0.0163 J**
PCB-129/138/163	E1668C	**17.044 J**	**0.572 J**	**0.624 J**	**0.146 J**
PCB-130	E1668C	**1.729 J**	**0.0296 J**	**0.0318 J**	**0.007 J**
PCB-131	E1668C	**0.541 J**	**0.00898 J**	**0.00954 J**	**0.00178 J**
PCB-132	E1668C	**17.038 J**	**0.322 J**	**0.35 J**	**0.0758 J**
PCB-133	E1668C	**0.529 J**	**0.0103 J**	**0.0111 J**	**0.00224 J**
PCB-134	E1668C	**3.692 J**	**0.0693 J**	**0.0768 J**	**0.0154 J**
PCB-135/151	E1668C	**23.475 J**	**0.532 J**	**0.59 J**	**0.116 J**
PCB-136	E1668C	**12.47 J**	**0.235 J**	**0.259 J**	**0.0493 J**
PCB-137	E1668C	**0.765 J**	**0.0134 J**	**0.0138 J**	**0.00297 J**
PCB-139/140	E1668C	**0.573 J**	**0.0109 J**	**0.0113 J**	**0.00246 J**
PCB-141	E1668C	**8.555 J**	**0.142 J**	**0.153 J**	**0.0335 J**
PCB-142	E1668C	**0.0203 J**	0.000618 UJ	0.000443 UJ	0.000493 UJ
PCB-143	E1668C	**0.309 J**	0.000457 UJ	0.000327 UJ	0.000365 UJ
PCB-144	E1668C	**3.668 J**	**0.0533 J**	**0.0593 J**	**0.0119 J**
PCB-145	E1668C	**0.0468 J**	0.000805 UJ	**0.00109 J**	0.000575 UJ
PCB-146	E1668C	**4.651 J**	**0.081 J**	**0.0849 J**	**0.0182 J**
PCB-147/149	E1668C	**20.554 J**	**0.942 J**	**1.049 J**	**0.214 J**
PCB-148	E1668C	**0.124 J**	**0.00238 J**	**0.00242 J**	**0.000432 J**
PCB-150	E1668C	**0.385 J**	**0.00845 J**	**0.00902 J**	**0.00192 J**
PCB-152	E1668C	**0.181 J**	**0.00517 J**	**0.00478 J**	0.000572 UJ
PCB-153/168	E1668C	**9.188 J**	**0.406 J**	**0.447 J**	**0.0991 J**
PCB-154	E1668C	**0.72 J**	**0.0142 J**	**0.0148 J**	**0.00317 J**
PCB-155	E1668C	**0.00408 J**	0.000203 UJ	0.000121 UJ	0.000146 UJ
PCB-156/157	E1668C	**0.617 J**	**0.00765 J**	**0.0079 J**	**0.00222 J**
PCB-158	E1668C	**1.768 J**	**0.0326 J**	**0.0351 J**	**0.00755 J**
PCB-159	E1668C	**0.284 J**	**0.0207 J**	**0.0231 J**	**0.00366 J**
PCB-160	E1668C	0.000175 UJ	0.000186 UJ	0.000133 UJ	0.000149 UJ
PCB-161	E1668C	0.000109 UJ	0.000116 UJ	0.0000828 UJ	0.0000927 UJ
PCB-162	E1668C	**0.0241 J**	**0.000432 J**	**0.000488 J**	0.000124 UJ
PCB-164	E1668C	**1.478 J**	**0.0235 J**	**0.0248 J**	**0.00543 J**
PCB-165	E1668C	**0.0215 J**	**0.000574 J**	**0.000744 J**	0.00012 UJ

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID / Sample Date / Sample ID / Method	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-CTRL-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-1-PAC-A-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-1-PAC-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-2-PAC-A-241030
PCB-167	E1668C	**0.301 J**	**0.00409 J**	**0.00429 J**	**0.00108 J**
PCB-169	E1668C	0.00145 UJ	0.000355 UJ	0.000294 UJ	0.000257 UJ
PCB-170	E1668C	**4.306 J**	**0.262 J**	**0.286 J**	**0.0613 J**
PCB-171/173	E1668C	**2.544 J**	**0.168 J**	**0.186 J**	**0.0353 J**
PCB-172	E1668C	**0.799 J**	**0.0564 J**	**0.0602 J**	**0.0124 J**
PCB-174	E1668C	**6.278 J**	**0.751 J**	**0.837 J**	**0.142 J**
PCB-175	E1668C	**0.374 J**	**0.0263 J**	**0.0288 J**	**0.00512 J**
PCB-176	E1668C	**5.158 J**	**0.374 J**	**0.409 J**	**0.0681 J**
PCB-177	E1668C	**5.249 J**	**0.409 J**	**0.454 J**	**0.0811 J**
PCB-178	E1668C	**3.053 J**	**0.202 J**	**0.216 J**	**0.0381 J**
PCB-179	E1668C	**13.904 J**	**1.322 J**	**1.455 J**	**0.236 J**
PCB-180/193	E1668C	**4.356 J**	**0.549 J**	**0.596 J**	**0.127 J**
PCB-181	E1668C	**0.0412 J**	**0.00341 J**	**0.00352 J**	**0.000666 J**
PCB-182	E1668C	**0.0298 J**	**0.00322 J**	**0.00321 J**	**0.000496 J**
PCB-183	E1668C	**4.163 J**	**0.305 J**	**0.331 J**	**0.062 J**
PCB-184	E1668C	**0.0132 J**	**0.00147 J**	**0.00142 J**	0.000141 UJ
PCB-185	E1668C	**1.345 J**	**0.0649 J**	**0.0902 J**	**0.0155 J**
PCB-186	E1668C	**0.00415 J**	**0.000637 J**	**0.000557 J**	0.00018 UJ
PCB-187	E1668C	**5.041 J**	**0.705 J**	**0.785 J**	**0.135 J**
PCB-188	E1668C	**0.0341 J**	**0.00388 J**	**0.00385 J**	**0.000678 J**
PCB-189	E1668C	**0.0464 J**	**0.00231 J**	**0.00235 J**	**0.000691 J**
PCB-190	E1668C	**0.62 J**	**0.0308 J**	**0.0343 J**	**0.00772 J**
PCB-191	E1668C	**0.108 J**	**0.00619 J**	**0.00651 J**	**0.00142 J**
PCB-192	E1668C	0.000655 UJ	0.0000796 UJ	0.000107 UJ	0.0000597 UJ
PCB-194	E1668C	**0.722 J**	**0.148 J**	**0.14 J**	**0.0333 J**
PCB-195	E1668C	**0.699 J**	**0.158 J**	**0.151 J**	**0.0319 J**
PCB-196	E1668C	**0.776 J**	**0.185 J**	**0.184 J**	**0.0377 J**
PCB-197	E1668C	**0.145 J**	**0.0497 J**	**0.0506 J**	**0.00917 J**
PCB-198/199	E1668C	**1.642 J**	**0.432 J**	**0.429 J**	**0.0858 J**
PCB-200	E1668C	**0.723 J**	**0.208 J**	**0.205 J**	**0.0383 J**
PCB-201	E1668C	**0.304 J**	**0.0932 J**	**0.091 J**	**0.0175 J**
PCB-202	E1668C	**0.804 J**	**0.255 J**	**0.255 J**	**0.0445 J**
PCB-203	E1668C	**0.916 J**	**0.201 J**	**0.201 J**	**0.0414 J**
PCB-204	E1668C	**0.000757 J**	**0.000351 J**	**0.000298 J**	0.0000372 UJ
PCB-205	E1668C	**0.0267 J**	**0.00487 J**	**0.00469 J**	**0.00114 J**
PCB-206	E1668C	**0.0785 J**	**0.0379 J**	**0.0349 J**	**0.0117 J**
PCB-207	E1668C	**0.0257 J**	**0.0146 J**	**0.0136 J**	**0.00485 J**
PCB-208	E1668C	**0.0451 J**	**0.0259 J**	**0.0246 J**	**0.00829 J**
PCB-209	E1668C	**0.00371 J**	**0.00298 J**	**0.00311 J**	**0.00144 J**
Total PCB Congener (U	Calculated	**440 J**	**12 J**	**13 J**	**2.6 J**

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Method	Location ID Sample Date Sample ID	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-2-PAC-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-5-PAC-A-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-5-PAC-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-2-GAC-A-241030
PCB Congeners (SPME) (ng/L)						
PCB-001	E1668C		0.00434 UJ	0.00234 UJ	0.0051 UJ	0.00372 UJ
PCB-002	E1668C		0.00168 UJ	0.000919 UJ	0.00199 UJ	0.00137 UJ
PCB-003	E1668C		0.00171 UJ	0.000938 UJ	0.00203 UJ	0.00139 UJ
PCB-004	E1668C		0.00651 UJ	0.0030 UJ	0.00651 UJ	0.00347 UJ
PCB-005	E1668C		0.00204 UJ	0.00163 UJ	0.00201 UJ	0.00216 UJ
PCB-006	E1668C		0.00138 UJ	0.0011 UJ	0.00136 UJ	0.00146 UJ
PCB-007	E1668C		0.00156 UJ	0.00125 UJ	0.00154 UJ	0.00165 UJ
PCB-008	E1668C		0.00361 UJ	0.00103 UJ	0.00128 UJ	0.00137 UJ
PCB-009	E1668C		0.00148 UJ	0.00118 UJ	0.00146 UJ	0.00156 UJ
PCB-010	E1668C		0.00277 UJ	0.00185 UJ	0.00418 UJ	0.00168 UJ
PCB-011	E1668C		0.0257 UJ	0.0205 UJ	0.0302 UJ	0.0229 UJ
PCB-012/013	E1668C		0.00123 UJ	0.000979 UJ	0.00121 UJ	0.0013 UJ
PCB-014	E1668C		0.00106 UJ	0.000846 UJ	0.00104 UJ	0.00112 UJ
PCB-015	E1668C		0.000871 UJ	0.000695 UJ	0.000857 UJ	0.000919 UJ
PCB-016	E1668C		0.00736 UJ	0.00156 UJ	0.00165 UJ	0.00142 UJ
PCB-017	E1668C		0.00589 UJ	0.00123 UJ	0.0013 UJ	0.00112 UJ
PCB-018/030	E1668C		0.014 UJ	0.0020 UJ	0.00192 UJ	0.00252 UJ
PCB-019	E1668C		0.00244 UJ	0.00218 UJ	0.00231 UJ	0.00197 UJ
PCB-020/028	E1668C		0.00833 UJ	0.00147 UJ	0.00137 UJ	0.00147 UJ
PCB-021/033	E1668C		0.00486 UJ	0.000915 UJ	0.000955 UJ	0.000704 UJ
PCB-022	E1668C		0.00268 UJ	0.000498 UJ	0.000722 UJ	0.000533 UJ
PCB-023	E1668C		0.000791 UJ	0.000559 UJ	0.00081 UJ	0.000598 UJ
PCB-024	E1668C		0.000815 UJ	0.000729 UJ	0.00077 UJ	0.00066 UJ
PCB-025	E1668C		0.000523 UJ	0.000369 UJ	0.000535 UJ	0.000395 UJ
PCB-026/029	E1668C		0.00112 UJ	0.000454 UJ	0.000658 UJ	0.000567 UJ
PCB-027	E1668C		0.00067 UJ	0.00060 UJ	0.000634 UJ	0.000543 UJ
PCB-031	E1668C		0.00793 UJ	0.00104 UJ	0.000976 UJ	0.00123 UJ
PCB-032	E1668C		0.00378 UJ	0.00055 UJ	0.000582 UJ	0.000499 UJ
PCB-034	E1668C		0.000666 UJ	0.00047 UJ	0.000683 UJ	0.000504 UJ
PCB-035	E1668C		0.000489 UJ	0.000345 UJ	0.000501 UJ	0.00037 UJ
PCB-036	E1668C		0.000357 UJ	0.000252 UJ	0.000366 UJ	0.00027 UJ
PCB-037	E1668C		0.000471 UJ	0.000321 UJ	0.000465 UJ	0.000343 UJ
PCB-038	E1668C		0.00051 UJ	0.00036 UJ	0.000523 UJ	0.000386 UJ
PCB-039	E1668C		0.00039 UJ	0.000276 UJ	0.00040 UJ	0.000295 UJ
PCB-040/071	E1668C		0.00488 UJ	0.000813 UJ	0.000772 UJ	0.00244 UJ
PCB-041	E1668C		0.000777 UJ	0.000273 UJ	0.000462 UJ	0.000305 UJ
PCB-042	E1668C		0.00325 UJ	0.000688 UJ	0.000596 UJ	0.0020 UJ
PCB-043	E1668C		0.00028 UJ	0.000187 UJ	0.000318 UJ	0.00021 UJ
PCB-044/047/065	E1668C		0.0184 UJ	0.00393 UJ	0.00455 UJ	0.0156 UJ
PCB-045	E1668C		0.00263 UJ	0.000321 UJ	0.000544 UJ	0.000803 UJ
PCB-046	E1668C		0.00146 UJ	0.000367 UJ	0.000624 UJ	0.000411 UJ
PCB-048	E1668C		0.00223 UJ	0.000339 UJ	0.000306 UJ	0.000202 UJ
PCB-049/069	E1668C		0.0139 UJ	0.00322 UJ	0.00376 UJ	0.0152 UJ
PCB-050/053	E1668C		0.0039 UJ	0.000626 UJ	0.000927 UJ	0.0032 UJ

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-2-PAC-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-5-PAC-A-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-5-PAC-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-2-GAC-A-241030
PCB-051	E1668C	**0.00155 J**	**0.000357 J**	0.000427 UJ	**0.000816 J**
PCB-052	E1668C	**0.0474 J**	0.0104 UJ	0.0125 UJ	**0.0554 J**
PCB-054	E1668C	0.00053 UJ	0.000314 UJ	0.000528 UJ	0.000307 UJ
PCB-055	E1668C	0.000291 UJ	0.000151 UJ	0.000216 UJ	0.00053 UJ
PCB-056	E1668C	0.00111 UJ	0.000157 UJ	0.000225 UJ	0.000553 UJ
PCB-057	E1668C	0.000269 UJ	0.00014 UJ	0.00020 UJ	0.00049 UJ
PCB-058	E1668C	0.000239 UJ	0.000124 UJ	0.000178 UJ	0.000436 UJ
PCB-059/062/075	E1668C	0.00106 UJ	0.0000983 UJ	0.000166 UJ	0.000737 UJ
PCB-060	E1668C	0.000749 UJ	0.000187 UJ	0.000269 UJ	0.000658 UJ
PCB-061/070/074/076	E1668C	0.0104 UJ	0.0026 UJ	0.00307 UJ	0.00862 UJ
PCB-063	E1668C	0.000287 UJ	0.000149 UJ	0.000214 UJ	0.000522 UJ
PCB-064	E1668C	0.00419 UJ	0.000741 UJ	0.000791 UJ	0.00254 UJ
PCB-066	E1668C	0.00368 UJ	0.000883 UJ	0.000945 UJ	0.00227 UJ
PCB-067	E1668C	0.000222 UJ	0.000115 UJ	0.000165 UJ	0.000404 UJ
PCB-068	E1668C	0.000222 UJ	0.000115 UJ	0.000165 UJ	0.000404 UJ
PCB-072	E1668C	**0.000236 J**	0.000107 UJ	0.000154 UJ	0.000377 UJ
PCB-073	E1668C	0.000115 UJ	0.0000765 UJ	0.00013 UJ	0.0000856 UJ
PCB-077	E1668C	0.000274 UJ	0.000144 UJ	0.000215 UJ	0.00057 UJ
PCB-078	E1668C	0.000204 UJ	0.000106 UJ	0.000152 UJ	0.000372 UJ
PCB-079	E1668C	**0.000261 J**	0.0000748 UJ	0.000107 UJ	**0.000668 J**
PCB-080	E1668C	0.000136 UJ	0.0000709 UJ	0.000102 UJ	0.000248 UJ
PCB-081	E1668C	0.000198 UJ	0.000103 UJ	0.000147 UJ	0.00036 UJ
PCB-082	E1668C	**0.00428 J**	**0.00113 J**	0.000515 UJ	**0.0116 J**
PCB-083	E1668C	**0.00556 J**	0.000327 UJ	**0.000677 J**	0.00155 UJ
PCB-084	E1668C	**0.0237 J**	**0.00466 J**	**0.00537 J**	**0.0777 J**
PCB-085/116	E1668C	**0.0075 J**	**0.00198 J**	**0.00179 J**	**0.0177 J**
PCB-086/087/097/109/	E1668C	**0.0404 J**	**0.00936 J**	**0.00984 J**	**0.112 J**
PCB-088	E1668C	0.000893 UJ	0.000434 UJ	0.000704 UJ	0.00205 UJ
PCB-089	E1668C	0.000778 UJ	0.000377 UJ	0.000615 UJ	0.00178 UJ
PCB-090/101/113	E1668C	**0.0965 J**	**0.0209 J**	**0.0218 J**	**0.282 J**
PCB-091	E1668C	**0.0159 J**	**0.00286 J**	**0.00313 J**	**0.0571 J**
PCB-092	E1668C	**0.0226 J**	**0.00463 J**	**0.00507 J**	**0.0821 J**
PCB-093/100	E1668C	**0.00274 J**	0.000413 UJ	0.00067 UJ	**0.00962 J**
PCB-094	E1668C	**0.000959 J**	0.000379 UJ	0.000621 UJ	**0.00398 J**
PCB-095	E1668C	**0.143 J**	**0.0256 J**	**0.0294 J**	**0.451 J**
PCB-096	E1668C	**0.0019 J**	0.000408 UJ	0.000569 UJ	**0.00976 J**
PCB-098	E1668C	0.000619 UJ	0.000301 UJ	0.000489 UJ	0.00142 UJ
PCB-099	E1668C	**0.0245 J**	**0.00622 J**	**0.00581 J**	**0.0948 J**
PCB-102	E1668C	**0.00236 J**	**0.000389 J**	0.000447 UJ	**0.0102 J**
PCB-103	E1668C	**0.00266 J**	**0.000421 J**	0.000431 UJ	**0.00922 J**
PCB-104	E1668C	0.000579 UJ	0.000339 UJ	0.000472 UJ	**0.000884 J**
PCB-105	E1668C	**0.00399 J**	**0.00135 J**	**0.00118 J**	**0.018 J**
PCB-106	E1668C	0.000182 UJ	0.0000883 UJ	0.000144 UJ	0.000418 UJ
PCB-107	E1668C	**0.000942 J**	**0.000261 J**	**0.000281 J**	**0.00245 J**
PCB-108/124	E1668C	**0.000721 J**	**0.000205 J**	**0.000183 J**	**0.00195 J**

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-2-PAC-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-5-PAC-A-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-5-PAC-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-2-GAC-A-241030
PCB-110	E1668C	**0.0496 J**	**0.0128 J**	**0.0127 J**	**0.131 J**
PCB-111	E1668C	0.000142 UJ	0.0000687 UJ	0.000112 UJ	0.000324 UJ
PCB-112	E1668C	0.000226 UJ	0.00011 UJ	0.000179 UJ	0.000518 UJ
PCB-114	E1668C	0.000201 UJ	0.0000915 UJ	0.000153 UJ	**0.0026 J**
PCB-115	E1668C	0.000199 UJ	0.0000962 UJ	0.000157 UJ	0.000454 UJ
PCB-117	E1668C	**0.000786 J**	0.00016 UJ	0.00026 UJ	**0.00353 J**
PCB-118	E1668C	**0.0109 J**	**0.00367 J**	**0.00347 J**	**0.0212 J**
PCB-120	E1668C	**0.000145 J**	0.0000524 UJ	0.0000853 UJ	**0.00117 J**
PCB-121	E1668C	0.000156 UJ	0.0000757 UJ	0.000123 UJ	0.000357 UJ
PCB-122	E1668C	0.00024 UJ	0.00011 UJ	0.000183 UJ	**0.000666 J**
PCB-123	E1668C	0.000158 UJ	0.0000768 UJ	0.000125 UJ	**0.00114 J**
PCB-126	E1668C	0.0000949 UJ	0.0000495 UJ	0.0000833 UJ	0.000201 UJ
PCB-127	E1668C	0.000101 UJ	0.0000459 UJ	0.000078 UJ	**0.000607 J**
PCB-128/166	E1668C	**0.0164 J**	**0.00276 J**	**0.00275 J**	**0.294 J**
PCB-129/138/163	E1668C	**0.17 J**	**0.0367 J**	**0.0346 J**	**1.265 J**
PCB-130	E1668C	**0.00826 J**	**0.00154 J**	**0.00151 J**	**0.0765 J**
PCB-131	E1668C	**0.00251 J**	**0.000408 J**	0.000266 UJ	**0.0252 J**
PCB-132	E1668C	**0.0889 J**	**0.015 J**	**0.0152 J**	**1.006 J**
PCB-133	E1668C	**0.00266 J**	**0.000444 J**	**0.000458 J**	**0.0317 J**
PCB-134	E1668C	**0.0188 J**	**0.00307 J**	**0.00255 J**	**0.221 J**
PCB-135/151	E1668C	**0.139 J**	**0.0214 J**	**0.0219 J**	**1.69 J**
PCB-136	E1668C	**0.0577 J**	**0.00789 J**	**0.00804 J**	**1.004 J**
PCB-137	E1668C	**0.00354 J**	**0.000683 J**	**0.000642 J**	**0.0273 J**
PCB-139/140	E1668C	**0.00288 J**	**0.00051 J**	**0.000468 J**	**0.0358 J**
PCB-141	E1668C	**0.04 J**	**0.00752 J**	**0.00725 J**	**0.36 J**
PCB-142	E1668C	0.000285 UJ	0.000195 UJ	0.000308 UJ	0.000174 UJ
PCB-143	E1668C	0.00021 UJ	0.000144 UJ	0.000228 UJ	0.000129 UJ
PCB-144	E1668C	**0.0147 J**	**0.00233 J**	**0.00255 J**	**0.151 J**
PCB-145	E1668C	0.000324 UJ	0.00024 UJ	0.000346 UJ	**0.00483 J**
PCB-146	E1668C	**0.0218 J**	**0.00396 J**	**0.00382 J**	**0.216 J**
PCB-147/149	E1668C	**0.251 J**	**0.0415 J**	**0.0419 J**	**3.057 J**
PCB-148	E1668C	**0.000599 J**	0.000103 UJ	0.000164 UJ	**0.009 J**
PCB-150	E1668C	**0.00196 J**	0.000223 UJ	0.000322 UJ	**0.0428 J**
PCB-152	E1668C	**0.00104 J**	0.000239 UJ	0.000345 UJ	**0.0219 J**
PCB-153/168	E1668C	**0.115 J**	**0.0231 J**	**0.0224 J**	**0.981 J**
PCB-154	E1668C	**0.00365 J**	**0.000561 J**	**0.000566 J**	**0.0491 J**
PCB-155	E1668C	0.0000817 UJ	0.0000606 UJ	0.0000875 UJ	**0.000634 J**
PCB-156/157	E1668C	**0.00245 J**	**0.000683 J**	**0.0006 J**	**0.0126 J**
PCB-158	E1668C	**0.00855 J**	**0.00178 J**	**0.0016 J**	**0.0898 J**
PCB-159	E1668C	**0.00356 J**	**0.000498 J**	**0.000464 J**	**0.0964 J**
PCB-160	E1668C	0.0000855 UJ	0.0000585 UJ	0.0000931 UJ	0.0000523 UJ
PCB-161	E1668C	0.0000533 UJ	0.0000364 UJ	0.0000576 UJ	0.0000326 UJ
PCB-162	E1668C	**0.000146 J**	0.0000336 UJ	0.0000778 UJ	**0.00101 J**
PCB-164	E1668C	**0.00664 J**	**0.00125 J**	**0.00121 J**	**0.0612 J**
PCB-165	E1668C	0.0000692 UJ	0.0000474 UJ	0.0000751 UJ	**0.00163 J**

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-2-PAC-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-5-PAC-A-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-5-PAC-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-2-GAC-A-241030
PCB-167	E1668C	**0.00116 J**	**0.000304 J**	**0.000279 J**	**0.00779 J**
PCB-169	E1668C	0.000146 UJ	0.0000754 UJ	0.00017 UJ	0.000483 UJ
PCB-170	E1668C	**0.057 J**	**0.0102 J**	**0.00898 J**	**1.014 J**
PCB-171/173	E1668C	**0.0345 J**	**0.00538 J**	**0.00505 J**	**0.739 J**
PCB-172	E1668C	**0.0118 J**	**0.0019 J**	**0.0018 J**	**0.199 J**
PCB-174	E1668C	**0.142 J**	**0.0206 J**	**0.0196 J**	**3.19 J**
PCB-175	E1668C	**0.00513 J**	**0.000705 J**	**0.000737 J**	**0.11 J**
PCB-176	E1668C	**0.0655 J**	**0.00862 J**	**0.00822 J**	**1.95 J**
PCB-177	E1668C	**0.0798 J**	**0.0119 J**	**0.0116 J**	**1.776 J**
PCB-178	E1668C	**0.0366 J**	**0.00517 J**	**0.00485 J**	**0.939 J**
PCB-179	E1668C	**0.223 J**	**0.0284 J**	**0.0289 J**	**6.945 J**
PCB-180/193	E1668C	**0.114 J**	**0.0203 J**	**0.019 J**	**1.988 J**
PCB-181	E1668C	**0.000721 J**	**0.0000992 J**	0.0000941 UJ	**0.0128 J**
PCB-182	E1668C	**0.000553 J**	0.0000429 UJ	0.0000696 UJ	**0.0119 J**
PCB-183	E1668C	**0.06 J**	**0.00924 J**	**0.00883 J**	**1.367 J**
PCB-184	E1668C	**0.000264 J**	0.0000555 UJ	0.0000927 UJ	**0.00514 J**
PCB-185	E1668C	**0.0131 J**	**0.00194 J**	**0.00174 J**	**0.279 J**
PCB-186	E1668C	0.0000881 UJ	0.0000711 UJ	0.000119 UJ	**0.00215 J**
PCB-187	E1668C	**0.134 J**	**0.0194 J**	**0.0188 J**	**2.916 J**
PCB-188	E1668C	**0.00071 J**	0.0000615 UJ	0.000102 UJ	**0.0162 J**
PCB-189	E1668C	**0.00056 J**	**0.000116 J**	**0.000102 J**	**0.00617 J**
PCB-190	E1668C	**0.00686 J**	**0.00127 J**	**0.00116 J**	**0.105 J**
PCB-191	E1668C	**0.00136 J**	**0.000238 J**	**0.000218 J**	**0.0203 J**
PCB-192	E1668C	0.0000381 UJ	0.0000202 UJ	0.0000328 UJ	0.000187 UJ
PCB-194	E1668C	**0.0311 J**	**0.00485 J**	**0.00454 J**	**0.348 J**
PCB-195	E1668C	**0.0319 J**	**0.0045 J**	**0.00415 J**	**0.383 J**
PCB-196	E1668C	**0.0375 J**	**0.00541 J**	**0.00501 J**	**0.427 J**
PCB-197	E1668C	**0.0101 J**	**0.00123 J**	**0.00125 J**	**0.107 J**
PCB-198/199	E1668C	**0.089 J**	**0.0123 J**	**0.0115 J**	**0.961 J**
PCB-200	E1668C	**0.0405 J**	**0.00474 J**	**0.00456 J**	**0.453 J**
PCB-201	E1668C	**0.0182 J**	**0.00215 J**	**0.00215 J**	**0.198 J**
PCB-202	E1668C	**0.048 J**	**0.00549 J**	**0.00542 J**	**0.542 J**
PCB-203	E1668C	**0.0423 J**	**0.00619 J**	**0.00592 J**	**0.481 J**
PCB-204	E1668C	**0.0000694 J**	**0.0000157 J**	0.0000169 UJ	**0.000561 J**
PCB-205	E1668C	**0.00104 J**	**0.000166 J**	**0.000159 J**	**0.0114 J**
PCB-206	E1668C	**0.0134 J**	**0.00335 J**	**0.00297 J**	**0.0535 J**
PCB-207	E1668C	**0.00541 J**	**0.000933 J**	**0.000899 J**	**0.0189 J**
PCB-208	E1668C	**0.01 J**	**0.00215 J**	**0.00193 J**	**0.0332 J**
PCB-209	E1668C	**0.00208 J**	**0.00113 J**	**0.000957 J**	**0.00315 J**
Total PCB Congener (U	Calculated	**2.9 J**	**0.47 J**	**0.46 J**	**40 J**

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Method	Location ID Sample Date Sample ID VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-2-GAC-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-5-GAC-A-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-5-GAC-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-5-BIOC-A-241030
PCB Congeners (SPME) (ng/L)					
PCB-001	E1668C	0.00302 UJ	0.00514 UJ	0.00474 UJ	0.00447 UJ
PCB-002	E1668C	0.0011 UJ	0.00202 UJ	0.00182 UJ	0.00175 UJ
PCB-003	E1668C	0.00114 UJ	0.0021 UJ	0.00189 UJ	0.00182 UJ
PCB-004	E1668C	0.00489 UJ	0.00617 UJ	0.00562 UJ	0.00407 UJ
PCB-005	E1668C	0.000821 UJ	0.0027 UJ	0.0025 UJ	0.00229 UJ
PCB-006	E1668C	**0.000755 J**	0.00183 UJ	0.0017 UJ	0.00155 UJ
PCB-007	E1668C	0.000636 UJ	0.00209 UJ	0.00193 UJ	0.00177 UJ
PCB-008	E1668C	0.00154 UJ	0.00176 UJ	0.00163 UJ	0.00149 UJ
PCB-009	E1668C	0.00059 UJ	0.00193 UJ	0.00179 UJ	0.00164 UJ
PCB-010	E1668C	0.0021 UJ	0.00386 UJ	0.00352 UJ	0.00256 UJ
PCB-011	E1668C	0.0186 UJ	0.0326 UJ	0.0281 UJ	0.0314 UJ
PCB-012/013	E1668C	0.000495 UJ	0.00163 UJ	0.0015 UJ	0.00138 UJ
PCB-014	E1668C	0.000427 UJ	0.0014 UJ	0.0013 UJ	0.00119 UJ
PCB-015	E1668C	0.000355 UJ	0.00117 UJ	0.00108 UJ	0.000991 UJ
PCB-016	E1668C	0.00191 UJ	0.00249 UJ	0.00285 UJ	0.00288 UJ
PCB-017	E1668C	0.00109 UJ	0.00198 UJ	0.00224 UJ	0.00228 UJ
PCB-018/030	E1668C	0.00219 UJ	0.00233 UJ	0.00158 UJ	0.00346 UJ
PCB-019	E1668C	0.00188 UJ	0.00341 UJ	0.00389 UJ	0.00395 UJ
PCB-020/028	E1668C	0.0018 UJ	0.00175 UJ	0.00115 UJ	0.00171 UJ
PCB-021/033	E1668C	0.000495 UJ	0.00125 UJ	0.00135 UJ	0.0012 UJ
PCB-022	E1668C	0.000483 UJ	0.000949 UJ	0.00102 UJ	0.000908 UJ
PCB-023	E1668C	0.000424 UJ	0.00108 UJ	0.00116 UJ	0.00103 UJ
PCB-024	E1668C	0.000629 UJ	0.00114 UJ	0.0013 UJ	0.00132 UJ
PCB-025	E1668C	0.000287 UJ	0.000726 UJ	0.000786 UJ	0.000695 UJ
PCB-026/029	E1668C	0.000653 UJ	0.00109 UJ	0.00094 UJ	0.00095 UJ
PCB-027	E1668C	0.000527 UJ	0.000956 UJ	0.00109 UJ	0.0011 UJ
PCB-031	E1668C	0.00112 UJ	0.00131 UJ	0.000896 UJ	0.00122 UJ
PCB-032	E1668C	0.000712 UJ	0.000875 UJ	0.000996 UJ	0.00101 UJ
PCB-034	E1668C	0.000356 UJ	0.000899 UJ	0.000974 UJ	0.000858 UJ
PCB-035	E1668C	0.000258 UJ	0.000649 UJ	0.000702 UJ	0.000626 UJ
PCB-036	E1668C	0.000197 UJ	0.000499 UJ	0.00054 UJ	0.000478 UJ
PCB-037	E1668C	0.000244 UJ	0.000618 UJ	0.00067 UJ	0.000589 UJ
PCB-038	E1668C	0.000282 UJ	0.000715 UJ	0.000769 UJ	0.000682 UJ
PCB-039	E1668C	0.000214 UJ	0.00054 UJ	0.000586 UJ	0.000514 UJ
PCB-040/071	E1668C	0.00222 UJ	0.00121 UJ	0.000671 UJ	0.00616 UJ
PCB-041	E1668C	0.000214 UJ	0.000689 UJ	0.000373 UJ	0.00050 UJ
PCB-042	E1668C	0.00186 UJ	0.00117 UJ	0.000681 UJ	0.00457 UJ
PCB-043	E1668C	0.000143 UJ	0.000462 UJ	0.00025 UJ	**0.00054 J**
PCB-044/047/065	E1668C	0.0136 UJ	0.00773 UJ	0.00452 UJ	0.0409 UJ
PCB-045	E1668C	0.000644 UJ	0.000808 UJ	0.000438 UJ	0.00268 UJ
PCB-046	E1668C	0.000283 UJ	0.00091 UJ	0.000493 UJ	0.000661 UJ
PCB-048	E1668C	0.000495 UJ	0.000457 UJ	0.000247 UJ	0.00122 UJ
PCB-049/069	E1668C	0.013 UJ	0.00596 UJ	0.00381 UJ	**0.0419 J**
PCB-050/053	E1668C	0.00275 UJ	0.0011 UJ	0.000833 UJ	**0.0113 J**

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-2-GAC-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-5-GAC-A-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-5-GAC-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-5-BIOC-A-241030
PCB-051	E1668C	**0.001 J**	0.000622 UJ	0.000336 UJ	**0.0028 J**
PCB-052	E1668C	**0.0491 J**	0.0206 UJ	0.0135 UJ	**0.174 J**
PCB-054	E1668C	0.000232 UJ	0.000576 UJ	0.000518 UJ	**0.000985 J**
PCB-055	E1668C	0.000489 UJ	0.000357 UJ	0.000251 UJ	0.00073 UJ
PCB-056	E1668C	0.000506 UJ	0.000373 UJ	0.00026 UJ	0.000898 UJ
PCB-057	E1668C	0.000446 UJ	0.000329 UJ	0.000229 UJ	0.000669 UJ
PCB-058	E1668C	0.000399 UJ	0.000294 UJ	0.000205 UJ	0.000601 UJ
PCB-059/062/075	E1668C	0.00067 UJ	0.000394 UJ	0.000149 UJ	0.00198 UJ
PCB-060	E1668C	0.000599 UJ	0.000439 UJ	0.000308 UJ	0.000898 UJ
PCB-061/070/074/076	E1668C	0.00848 UJ	0.00514 UJ	0.00309 UJ	0.0197 UJ
PCB-063	E1668C	0.000478 UJ	0.000352 UJ	0.000246 UJ	0.000718 UJ
PCB-064	E1668C	0.00228 UJ	0.00135 UJ	0.000855 UJ	0.00603 UJ
PCB-066	E1668C	0.00228 UJ	0.00174 UJ	0.000782 UJ	0.00333 UJ
PCB-067	E1668C	0.000369 UJ	0.000272 UJ	0.00019 UJ	0.000553 UJ
PCB-068	E1668C	0.000372 UJ	0.000272 UJ	0.000191 UJ	0.000556 UJ
PCB-072	E1668C	0.000345 UJ	0.000253 UJ	0.000178 UJ	0.000519 UJ
PCB-073	E1668C	**0.000175 J**	0.000192 UJ	0.000104 UJ	**0.000691 J**
PCB-077	E1668C	0.000462 UJ	0.000352 UJ	0.000253 UJ	0.000669 UJ
PCB-078	E1668C	0.000346 UJ	0.000254 UJ	0.000178 UJ	0.000518 UJ
PCB-079	E1668C	**0.000526 J**	0.000181 UJ	0.000127 UJ	**0.00213 J**
PCB-080	E1668C	0.000228 UJ	0.000167 UJ	0.000117 UJ	0.000343 UJ
PCB-081	E1668C	0.000331 UJ	0.000242 UJ	0.000169 UJ	0.000495 UJ
PCB-082	E1668C	**0.0107 J**	**0.00266 J**	**0.00174 J**	**0.0341 J**
PCB-083	E1668C	0.00145 UJ	**0.00143 J**	**0.00207 J**	**0.0684 J**
PCB-084	E1668C	**0.0694 J**	**0.0136 J**	**0.00999 J**	**0.321 J**
PCB-085/116	E1668C	**0.0174 J**	**0.00474 J**	**0.0034 J**	**0.0599 J**
PCB-086/087/097/109/	E1668C	**0.0996 J**	**0.024 J**	**0.0175 J**	**0.353 J**
PCB-088	E1668C	0.00189 UJ	0.000736 UJ	0.000494 UJ	0.00663 UJ
PCB-089	E1668C	0.00165 UJ	0.000643 UJ	0.00043 UJ	0.00578 UJ
PCB-090/101/113	E1668C	**0.248 J**	**0.0551 J**	**0.042 J**	**0.94 J**
PCB-091	E1668C	**0.0498 J**	**0.00877 J**	**0.0068 J**	**0.213 J**
PCB-092	E1668C	**0.0742 J**	**0.0137 J**	**0.0104 J**	**0.286 J**
PCB-093/100	E1668C	**0.00855 J**	**0.00156 J**	**0.00118 J**	**0.0361 J**
PCB-094	E1668C	**0.00392 J**	0.000652 UJ	0.000439 UJ	**0.0174 J**
PCB-095	E1668C	**0.398 J**	**0.0776 J**	**0.0592 J**	**2.009 J**
PCB-096	E1668C	**0.00916 J**	**0.00105 J**	**0.000847 J**	**0.0327 J**
PCB-098	E1668C	0.00128 UJ	0.000497 UJ	0.000335 UJ	0.00448 UJ
PCB-099	E1668C	**0.0906 J**	**0.0158 J**	**0.0112 J**	**0.247 J**
PCB-102	E1668C	**0.00908 J**	**0.00139 J**	**0.00116 J**	**0.0368 J**
PCB-103	E1668C	**0.00835 J**	**0.00142 J**	0.000296 UJ	**0.0399 J**
PCB-104	E1668C	**0.000649 J**	0.00065 UJ	0.000441 UJ	**0.00363 J**
PCB-105	E1668C	**0.0181 J**	**0.00325 J**	**0.00221 J**	**0.0343 J**
PCB-106	E1668C	0.000378 UJ	0.000147 UJ	0.0000984 UJ	0.00132 UJ
PCB-107	E1668C	**0.00232 J**	**0.000668 J**	**0.000473 J**	**0.00512 J**
PCB-108/124	E1668C	**0.00192 J**	**0.000468 J**	**0.000319 J**	**0.00416 J**

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-2-GAC-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-5-GAC-A-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-5-GAC-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-5-BIOC-A-241030
PCB-110	E1668C	**0.121 J**	**0.0321 J**	**0.0232 J**	**0.413 J**
PCB-111	E1668C	0.00030 UJ	0.000117 UJ	0.0000782 UJ	0.00105 UJ
PCB-112	E1668C	0.000481 UJ	0.000188 UJ	0.000125 UJ	0.00169 UJ
PCB-114	E1668C	**0.00282 J**	**0.000294 J**	0.000107 UJ	**0.00477 J**
PCB-115	E1668C	0.000408 UJ	0.000158 UJ	0.000106 UJ	0.00143 UJ
PCB-117	E1668C	**0.0026 J**	**0.000474 J**	**0.000326 J**	**0.00715 J**
PCB-118	E1668C	**0.0187 J**	**0.00708 J**	**0.00495 J**	**0.0422 J**
PCB-120	E1668C	**0.00133 J**	0.0000912 UJ	**0.000114 J**	**0.00238 J**
PCB-121	E1668C	0.000331 UJ	0.000128 UJ	0.0000862 UJ	0.00116 UJ
PCB-122	E1668C	**0.000757 J**	0.00020 UJ	0.000132 UJ	0.00172 UJ
PCB-123	E1668C	**0.00115 J**	0.000128 UJ	**0.000149 J**	**0.00253 J**
PCB-126	E1668C	0.000188 UJ	0.00014 UJ	0.000118 UJ	0.000265 UJ
PCB-127	E1668C	**0.000583 J**	0.0000811 UJ	0.0000567 UJ	**0.000947 J**
PCB-128/166	E1668C	**0.313 J**	0.000243 UJ	0.000188 UJ	0.000495 UJ
PCB-129/138/163	E1668C	**1.287 J**	**0.145 J**	**0.11 J**	**2.527 J**
PCB-130	E1668C	**0.0791 J**	**0.00767 J**	**0.00616 J**	**0.131 J**
PCB-131	E1668C	**0.0271 J**	**0.00223 J**	**0.00156 J**	**0.0533 J**
PCB-132	E1668C	**1.077 J**	**0.0833 J**	**0.0629 J**	**2.094 J**
PCB-133	E1668C	**0.0356 J**	**0.00291 J**	**0.00212 J**	**0.0588 J**
PCB-134	E1668C	**0.24 J**	**0.0177 J**	**0.0143 J**	**0.479 J**
PCB-135/151	E1668C	**1.872 J**	**0.138 J**	**0.103 J**	**3.874 J**
PCB-136	E1668C	**1.095 J**	**0.0616 J**	**0.0468 J**	**2.278 J**
PCB-137	E1668C	**0.033 J**	**0.00286 J**	**0.00273 J**	**0.0452 J**
PCB-139/140	E1668C	**0.0406 J**	**0.00293 J**	**0.0024 J**	**0.0634 J**
PCB-141	E1668C	**0.364 J**	**0.0357 J**	**0.0266 J**	**0.67 J**
PCB-142	E1668C	**0.001 J**	0.000324 UJ	0.000208 UJ	0.000214 UJ
PCB-143	E1668C	0.0000876 UJ	0.000241 UJ	0.000154 UJ	0.00016 UJ
PCB-144	E1668C	**0.164 J**	**0.0133 J**	**0.0103 J**	**0.344 J**
PCB-145	E1668C	**0.006 J**	0.000423 UJ	0.000261 UJ	**0.00813 J**
PCB-146	E1668C	**0.228 J**	**0.021 J**	**0.016 J**	**0.404 J**
PCB-147/149	E1668C	**3.296 J**	**0.247 J**	**0.185 J**	**6.852 J**
PCB-148	E1668C	**0.0104 J**	**0.000674 J**	**0.0005 J**	**0.0167 J**
PCB-150	E1668C	**0.0476 J**	**0.00266 J**	**0.0021 J**	**0.0727 J**
PCB-152	E1668C	**0.0233 J**	**0.00122 J**	**0.00134 J**	**0.0376 J**
PCB-153/168	E1668C	**1.028 J**	**0.106 J**	**0.0789 J**	**2.023 J**
PCB-154	E1668C	**0.0553 J**	**0.00363 J**	**0.00293 J**	**0.0929 J**
PCB-155	E1668C	**0.000743 J**	0.000107 UJ	0.0000654 UJ	**0.000983 J**
PCB-156/157	E1668C	**0.012 J**	**0.00206 J**	**0.00172 J**	**0.0173 J**
PCB-158	E1668C	**0.0987 J**	**0.0126 J**	**0.00858 J**	**0.132 J**
PCB-159	E1668C	**0.109 J**	**0.0138 J**	**0.00862 J**	**0.11 J**
PCB-160	E1668C	0.0000357 UJ	0.0000982 UJ	0.0000627 UJ	0.0000651 UJ
PCB-161	E1668C	0.0000224 UJ	0.0000618 UJ	**0.0000445 J**	0.0000409 UJ
PCB-162	E1668C	**0.000949 J**	0.000117 UJ	0.0000908 UJ	0.000239 UJ
PCB-164	E1668C	**0.0617 J**	**0.00627 J**	**0.00476 J**	**0.113 J**
PCB-165	E1668C	**0.0017 J**	**0.000146 J**	0.0000492 UJ	**0.00265 J**

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-2-GAC-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-5-GAC-A-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-5-GAC-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-5-BIOC-A-241030
PCB-167	E1668C	**0.00757 J**	**0.00105 J**	**0.000967 J**	**0.0103 J**
PCB-169	E1668C	0.000397 UJ	0.000243 UJ	0.000195 UJ	0.000514 UJ
PCB-170	E1668C	**1.177 J**	**0.141 J**	**0.104 J**	**1.09 J**
PCB-171/173	E1668C	**0.85 J**	**0.118 J**	**0.0819 J**	**0.796 J**
PCB-172	E1668C	**0.232 J**	**0.0335 J**	**0.0243 J**	**0.211 J**
PCB-174	E1668C	**3.494 J**	**0.498 J**	**0.33 J**	**3.668 J**
PCB-175	E1668C	**0.129 J**	**0.0184 J**	**0.013 J**	**0.119 J**
PCB-176	E1668C	**2.188 J**	**0.327 J**	**0.228 J**	**2.232 J**
PCB-177	E1668C	**2.058 J**	**0.282 J**	**0.189 J**	**1.989 J**
PCB-178	E1668C	**1.082 J**	**0.131 J**	**0.0909 J**	**1.122 J**
PCB-179	E1668C	**7.434 J**	**1.079 J**	**0.728 J**	**7.989 J**
PCB-180/193	E1668C	**2.194 J**	**0.314 J**	**0.221 J**	**2.235 J**
PCB-181	E1668C	**0.0152 J**	**0.00238 J**	**0.00189 J**	**0.0128 J**
PCB-182	E1668C	**0.0125 J**	**0.00224 J**	**0.0018 J**	**0.0125 J**
PCB-183	E1668C	**1.58 J**	**0.216 J**	**0.154 J**	**1.57 J**
PCB-184	E1668C	**0.00592 J**	**0.00114 J**	**0.00119 J**	**0.00559 J**
PCB-185	E1668C	**0.396 J**	**0.0507 J**	**0.0285 J**	**0.32 J**
PCB-186	E1668C	**0.00279 J**	0.000202 UJ	**0.000532 J**	0.000157 UJ
PCB-187	E1668C	**3.02 J**	**0.468 J**	**0.311 J**	**3.498 J**
PCB-188	E1668C	**0.0176 J**	**0.00354 J**	**0.00283 J**	**0.0166 J**
PCB-189	E1668C	**0.00689 J**	**0.001 J**	**0.000927 J**	**0.00566 J**
PCB-190	E1668C	**0.195 J**	**0.0151 J**	**0.0115 J**	**0.186 J**
PCB-191	E1668C	**0.0237 J**	**0.00319 J**	**0.00233 J**	**0.0223 J**
PCB-192	E1668C	0.000228 UJ	0.000081 UJ	0.0000761 UJ	0.000199 UJ
PCB-194	E1668C	**0.396 J**	**0.134 J**	**0.1 J**	**0.334 J**
PCB-195	E1668C	**0.434 J**	**0.162 J**	**0.12 J**	**0.37 J**
PCB-196	E1668C	**0.479 J**	**0.197 J**	**0.151 J**	**0.431 J**
PCB-197	E1668C	**0.114 J**	**0.0561 J**	**0.0469 J**	**0.0979 J**
PCB-198/199	E1668C	**1.012 J**	**0.441 J**	**0.328 J**	**0.974 J**
PCB-200	E1668C	**0.496 J**	**0.246 J**	**0.184 J**	**0.469 J**
PCB-201	E1668C	**0.214 J**	**0.109 J**	**0.085 J**	**0.203 J**
PCB-202	E1668C	**0.595 J**	**0.305 J**	**0.232 J**	**0.58 J**
PCB-203	E1668C	**0.513 J**	**0.206 J**	**0.155 J**	**0.474 J**
PCB-204	E1668C	**0.000606 J**	**0.000381 J**	**0.000318 J**	**0.00057 J**
PCB-205	E1668C	**0.013 J**	**0.00413 J**	**0.00303 J**	**0.0111 J**
PCB-206	E1668C	**0.0597 J**	**0.0398 J**	**0.0319 J**	**0.0556 J**
PCB-207	E1668C	**0.0216 J**	**0.0163 J**	**0.0132 J**	**0.0212 J**
PCB-208	E1668C	**0.038 J**	**0.029 J**	**0.0231 J**	**0.037 J**
PCB-209	E1668C	**0.0042 J**	**0.00447 J**	**0.00332 J**	**0.00355 J**
Total PCB Congener (U	Calculated	**43 J**	**6.9 J**	**4.9 J**	**59 J**

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Method	Location ID Sample Date Sample ID	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-5-BIOC-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-10-BIOC-A-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-10-BIOC-B-241030	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-CTRL-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-CTRL-B
PCB Congeners (SPME) (ng/L)							
PCB-001	E1668C		0.00389 UJ	0.0127 UJ	**0.0456 J**	0.0695 UJ	0.0766 UJ
PCB-002	E1668C		0.00155 UJ	0.00502 UJ	0.00282 UJ	0.0222 UJ	0.021 UJ
PCB-003	E1668C		0.00161 UJ	0.00522 UJ	**0.0138 J**	0.0244 UJ	0.0231 UJ
PCB-004	E1668C		0.00593 UJ	0.012 UJ	0.0152 UJ	**0.0985 J**	**0.0819 J**
PCB-005	E1668C		0.00425 UJ	0.00694 UJ	0.00223 UJ	0.0208 UJ	0.025 UJ
PCB-006	E1668C		0.00287 UJ	0.00471 UJ	0.00152 UJ	0.0143 UJ	0.0172 UJ
PCB-007	E1668C		0.00327 UJ	0.00537 UJ	0.00176 UJ	0.0164 UJ	0.0197 UJ
PCB-008	E1668C		0.00276 UJ	0.00453 UJ	0.00488 UJ	**0.0256 J**	**0.0202 J**
PCB-009	E1668C		0.00304 UJ	0.00495 UJ	0.00161 UJ	0.0149 UJ	0.018 UJ
PCB-010	E1668C		0.00371 UJ	0.00753 UJ	0.00231 UJ	0.0331 UJ	0.0293 UJ
PCB-011	E1668C		0.0258 UJ	0.0789 UJ	0.00616 UJ	0.00954 UJ	0.0115 UJ
PCB-012/013	E1668C		0.00256 UJ	0.00418 UJ	0.0013 UJ	0.0122 UJ	0.0147 UJ
PCB-014	E1668C		0.0022 UJ	0.00359 UJ	0.00113 UJ	0.0104 UJ	0.0125 UJ
PCB-015	E1668C		0.00184 UJ	0.00299 UJ	0.0042 UJ	**0.0255 J**	**0.0166 J**
PCB-016	E1668C		0.00266 UJ	0.0057 UJ	0.00238 UJ	0.0124 UJ	0.0156 UJ
PCB-017	E1668C		0.0021 UJ	0.0045 UJ	0.00196 UJ	**0.0688 J**	**0.0668 J**
PCB-018/030	E1668C		0.00423 UJ	0.00317 UJ	0.00387 UJ	**0.0315 J**	**0.03 J**
PCB-019	E1668C		0.00363 UJ	0.00777 UJ	**0.00596 J**	0.0151 UJ	0.019 UJ
PCB-020/028	E1668C		0.00205 UJ	0.00215 UJ	0.00247 UJ	**0.0396 J**	**0.0422 J**
PCB-021/033	E1668C		0.00105 UJ	0.00265 UJ	0.000675 UJ	**0.0323 J**	**0.0242 J**
PCB-022	E1668C		0.000798 UJ	0.00201 UJ	0.000494 UJ	**0.00615 J**	**0.0064 J**
PCB-023	E1668C		0.000901 UJ	0.00228 UJ	0.000582 UJ	0.00641 UJ	0.00498 UJ
PCB-024	E1668C		0.00122 UJ	0.0026 UJ	0.00115 UJ	0.00568 UJ	0.00714 UJ
PCB-025	E1668C		0.000611 UJ	0.00154 UJ	0.000383 UJ	**0.0361 J**	**0.0319 J**
PCB-026/029	E1668C		0.00137 UJ	0.00185 UJ	0.000471 UJ	**0.0196 J**	**0.0181 J**
PCB-027	E1668C		0.00102 UJ	0.00218 UJ	0.000941 UJ	**0.013 J**	**0.0126 J**
PCB-031	E1668C		0.00158 UJ	0.0016 UJ	0.00169 UJ	**0.0379 J**	**0.0354 J**
PCB-032	E1668C		0.0016 UJ	0.00199 UJ	0.000853 UJ	**0.0312 J**	**0.0326 J**
PCB-034	E1668C		0.000756 UJ	0.0019 UJ	0.000479 UJ	0.00536 UJ	0.00417 UJ
PCB-035	E1668C		0.000548 UJ	0.00138 UJ	0.000335 UJ	0.00356 UJ	0.00277 UJ
PCB-036	E1668C		0.000419 UJ	0.00106 UJ	0.000258 UJ	0.00272 UJ	0.00212 UJ
PCB-037	E1668C		0.000519 UJ	0.00131 UJ	**0.00134 J**	**0.0157 J**	**0.0129 J**
PCB-038	E1668C		0.00060 UJ	0.00151 UJ	0.000359 UJ	0.00378 UJ	0.00295 UJ
PCB-039	E1668C		0.000454 UJ	0.00114 UJ	0.000277 UJ	0.00295 UJ	0.0023 UJ
PCB-040/071	E1668C		0.00788 UJ	0.00208 UJ	**0.000988 J**	**0.401 J**	**0.355 J**
PCB-041	E1668C		0.000516 UJ	0.0011 UJ	0.000313 UJ	**0.00313 J**	0.0041 UJ
PCB-042	E1668C		0.00633 UJ	0.0015 UJ	**0.000966 J**	**0.174 J**	**0.164 J**
PCB-043	E1668C		**0.000499 J**	0.00074 UJ	0.000224 UJ	**0.00727 J**	0.00306 UJ
PCB-044/047/065	E1668C		**0.053 J**	0.0109 UJ	**0.0106 J**	**4.089 J**	**3.634 J**
PCB-045	E1668C		0.00282 UJ	0.00129 UJ	**0.0000736 J**	**0.159 J**	**0.0946 J**
PCB-046	E1668C		0.00103 UJ	0.00145 UJ	0.000433 UJ	**0.0183 J**	**0.0178 J**
PCB-048	E1668C		0.00125 UJ	0.000727 UJ	0.000217 UJ	**0.0119 J**	0.00292 UJ
PCB-049/069	E1668C		**0.0542 J**	0.00918 UJ	**0.00882 J**	**2.147 J**	**1.912 J**
PCB-050/053	E1668C		**0.0151 J**	0.00294 UJ	**0.00213 J**	**1.124 J**	**0.995 J**

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-5-BIOC-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-10-BIOC-A-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-10-BIOC-B-241030	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-CTRL-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-CTRL-B
PCB-051	E1668C	**0.00425 J**	0.000996 UJ	**0.000809 J**	**0.332 J**	**0.316 J**
PCB-052	E1668C	**0.227 J**	0.0355 UJ	**0.0372 J**	**4.459 J**	**3.97 J**
PCB-054	E1668C	**0.00157 J**	0.00146 UJ	0.0021 UJ	**0.0768 J**	**0.0708 J**
PCB-055	E1668C	0.0012 UJ	0.000689 UJ	0.000201 UJ	0.00785 UJ	0.00517 UJ
PCB-056	E1668C	0.00125 UJ	0.000715 UJ	**0.000232 J**	**0.0611 J**	**0.0524 J**
PCB-057	E1668C	0.0011 UJ	0.000628 UJ	0.000192 UJ	0.00775 UJ	0.00511 UJ
PCB-058	E1668C	0.000986 UJ	0.000564 UJ	**0.00653 J**	0.00674 UJ	**0.0168 J**
PCB-059/062/075	E1668C	0.00218 UJ	0.000417 UJ	**0.000272 J**	**0.108 J**	**0.102 J**
PCB-060	E1668C	0.00148 UJ	0.000843 UJ	0.000243 UJ	0.00959 UJ	**0.00789 J**
PCB-061/070/074/076	E1668C	0.0233 UJ	0.00567 UJ	**0.0064 J**	**0.843 J**	**0.733 J**
PCB-063	E1668C	0.00118 UJ	0.000674 UJ	0.000206 UJ	0.0082 UJ	0.00542 UJ
PCB-064	E1668C	0.00747 UJ	0.00157 UJ	**0.00205 J**	**0.213 J**	**0.186 J**
PCB-066	E1668C	0.00461 UJ	0.00136 UJ	**0.0027 J**	**0.436 J**	**0.386 J**
PCB-067	E1668C	0.000912 UJ	0.000522 UJ	0.000157 UJ	**0.0175 J**	0.00426 UJ
PCB-068	E1668C	0.000917 UJ	0.000525 UJ	0.000159 UJ	**0.0346 J**	**0.0329 J**
PCB-072	E1668C	**0.000944 J**	0.000486 UJ	**0.000181 J**	**0.0521 J**	**0.0456 J**
PCB-073	E1668C	**0.00121 J**	0.000307 UJ	**0.000107 J**	**0.12 J**	**0.104 J**
PCB-077	E1668C	0.00108 UJ	0.000629 UJ	0.000644 UJ	**0.0364 J**	**0.0316 J**
PCB-078	E1668C	0.000853 UJ	0.000488 UJ	0.000132 UJ	0.00539 UJ	0.00359 UJ
PCB-079	E1668C	**0.00239 J**	**0.000459 J**	**0.000492 J**	**0.0573 J**	**0.046 J**
PCB-080	E1668C	0.000565 UJ	0.000323 UJ	0.0000951 UJ	0.00412 UJ	0.00278 UJ
PCB-081	E1668C	0.000814 UJ	0.000466 UJ	0.000137 UJ	0.00528 UJ	0.00351 UJ
PCB-082	E1668C	**0.0401 J**	**0.0063 J**	**0.00674 J**	**0.713 J**	**0.636 J**
PCB-083	E1668C	0.00484 UJ	0.00106 UJ	**0.00766 J**	**0.498 J**	**0.551 J**
PCB-084	E1668C	**0.368 J**	**0.049 J**	**0.0558 J**	**4.476 J**	**3.871 J**
PCB-085/116	E1668C	**0.0711 J**	**0.0113 J**	**0.0117 J**	**1.656 J**	**1.413 J**
PCB-086/087/097/109/	E1668C	**0.412 J**	**0.0576 J**	**0.0676 J**	**7.285 J**	**6.389 J**
PCB-088	E1668C	0.00635 UJ	0.00139 UJ	0.000287 UJ	0.175 UJ	0.161 UJ
PCB-089	E1668C	0.00552 UJ	0.00121 UJ	**0.000749 J**	0.15 UJ	0.138 UJ
PCB-090/101/113	E1668C	**1.102 J**	**0.153 J**	**0.167 J**	**18.532 J**	**16.365 J**
PCB-091	E1668C	**0.243 J**	**0.0324 J**	**0.0371 J**	**4.179 J**	**3.604 J**
PCB-092	E1668C	**0.33 J**	**0.0438 J**	**0.051 J**	**4.677 J**	**4.083 J**
PCB-093/100	E1668C	**0.0397 J**	**0.00627 J**	**0.00648 J**	**1.063 J**	**0.898 J**
PCB-094	E1668C	**0.0186 J**	**0.00263 J**	**0.00266 J**	**0.372 J**	**0.33 J**
PCB-095	E1668C	**2.327 J**	**0.312 J**	**0.34 J**	**30.639 J**	**26.315 J**
PCB-096	E1668C	**0.0349 J**	**0.00524 J**	**0.00586 J**	**0.716 J**	**0.605 J**
PCB-098	E1668C	0.0043 UJ	0.000937 UJ	0.000208 UJ	0.124 UJ	0.114 UJ
PCB-099	E1668C	**0.313 J**	**0.0434 J**	**0.0485 J**	**4.424 J**	**3.86 J**
PCB-102	E1668C	**0.0416 J**	**0.00535 J**	**0.00587 J**	**0.522 J**	**0.415 J**
PCB-103	E1668C	**0.0448 J**	**0.00573 J**	**0.00713 J**	**0.695 J**	**0.608 J**
PCB-104	E1668C	**0.00377 J**	0.00132 UJ	**0.00188 J**	**0.0692 J**	**0.059 J**
PCB-105	E1668C	**0.0363 J**	**0.00538 J**	**0.00646 J**	**0.472 J**	**0.444 J**
PCB-106	E1668C	0.00126 UJ	0.000276 UJ	0.0000523 UJ	0.0434 UJ	0.0419 UJ
PCB-107	E1668C	**0.00602 J**	**0.000919 J**	**0.00105 J**	0.0372 UJ	**0.135 J**
PCB-108/124	E1668C	**0.00487 J**	**0.000917 J**	**0.000844 J**	**0.158 J**	**0.15 J**

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-5-BIOC-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-10-BIOC-A-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-10-BIOC-B-241030	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-CTRL-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-CTRL-B
PCB-110	E1668C	**0.482 J**	**0.074 J**	**0.0737 J**	**9.319 J**	**8.382 J**
PCB-111	E1668C	0.0010 UJ	0.00022 UJ	0.0000425 UJ	0.0418 UJ	0.041 UJ
PCB-112	E1668C	0.00161 UJ	0.000352 UJ	0.000069 UJ	0.0495 UJ	0.0466 UJ
PCB-114	E1668C	0.00141 UJ	0.000324 UJ	**0.000892 J**	0.0477 UJ	0.0436 UJ
PCB-115	E1668C	0.00136 UJ	0.000299 UJ	0.0000631 UJ	0.0517 UJ	0.0488 UJ
PCB-117	E1668C	**0.00953 J**	**0.00115 J**	**0.00167 J**	**0.115 J**	**0.118 J**
PCB-118	E1668C	**0.0516 J**	**0.00954 J**	**0.00933 J**	**1.539 J**	**1.484 J**
PCB-120	E1668C	**0.00246 J**	**0.000369 J**	**0.000432 J**	0.0335 UJ	**0.0368 J**
PCB-121	E1668C	0.00111 UJ	0.000242 UJ	**0.0000763 J**	0.0415 UJ	0.040 UJ
PCB-122	E1668C	0.00174 UJ	0.000397 UJ	**0.000304 J**	0.0615 UJ	0.0562 UJ
PCB-123	E1668C	**0.00255 J**	**0.000438 J**	**0.000452 J**	**0.0624 J**	**0.0539 J**
PCB-126	E1668C	0.000232 UJ	0.000352 UJ	0.000181 UJ	**0.0104 J**	**0.0104 J**
PCB-127	E1668C	0.00081 UJ	0.00016 UJ	0.0000267 UJ	0.0393 UJ	0.0385 UJ
PCB-128/166	E1668C	0.000507 UJ	0.000356 UJ	**0.0847 J**	**1.36 J**	**1.355 J**
PCB-129/138/163	E1668C	**2.722 J**	**0.408 J**	**0.502 J**	**15.475 J**	**14.817 J**
PCB-130	E1668C	**0.138 J**	**0.0215 J**	**0.0264 J**	**0.731 J**	**0.711 J**
PCB-131	E1668C	**0.0559 J**	**0.00872 J**	**0.00986 J**	**0.172 J**	**0.152 J**
PCB-132	E1668C	**2.091 J**	**0.32 J**	**0.384 J**	**6.439 J**	**5.835 J**
PCB-133	E1668C	**0.0599 J**	**0.00946 J**	**0.0109 J**	**0.274 J**	**0.269 J**
PCB-134	E1668C	**0.49 J**	**0.0756 J**	**0.083 J**	**1.277 J**	**1.107 J**
PCB-135/151	E1668C	**3.938 J**	**0.6 J**	**0.706 J**	**12.262 J**	**10.99 J**
PCB-136	E1668C	**2.252 J**	**0.315 J**	**0.386 J**	**5.341 J**	**4.828 J**
PCB-137	E1668C	**0.0516 J**	**0.00721 J**	**0.00969 J**	**0.262 J**	**0.277 J**
PCB-139/140	E1668C	**0.0644 J**	**0.0101 J**	**0.0118 J**	**0.188 J**	**0.175 J**
PCB-141	E1668C	**0.711 J**	**0.108 J**	**0.133 J**	**4.151 J**	**3.987 J**
PCB-142	E1668C	**0.00116 J**	0.000664 UJ	0.0000299 UJ	0.00239 UJ	0.00285 UJ
PCB-143	E1668C	0.000209 UJ	0.000493 UJ	0.0000229 UJ	0.00196 UJ	0.00237 UJ
PCB-144	E1668C	**0.365 J**	**0.0543 J**	**0.0624 J**	**1.325 J**	**1.205 J**
PCB-145	E1668C	**0.00853 J**	0.000783 UJ	0.0000362 UJ	0.00281 UJ	**0.00772 J**
PCB-146	E1668C	**0.418 J**	**0.0626 J**	**0.0706 J**	**2.43 J**	**2.32 J**
PCB-147/149	E1668C	**6.998 J**	**1.035 J**	**1.248 J**	**21.839 J**	**19.94 J**
PCB-148	E1668C	**0.0165 J**	**0.00268 J**	**0.00325 J**	**0.0656 J**	**0.0616 J**
PCB-150	E1668C	**0.0707 J**	**0.0106 J**	**0.0134 J**	**0.163 J**	**0.145 J**
PCB-152	E1668C	**0.0367 J**	**0.00534 J**	**0.00652 J**	**0.108 J**	**0.0914 J**
PCB-153/168	E1668C	**2.135 J**	**0.303 J**	**0.364 J**	**15.728 J**	**15.395 J**
PCB-154	E1668C	**0.092 J**	**0.0141 J**	**0.0169 J**	**0.328 J**	**0.298 J**
PCB-155	E1668C	**0.00106 J**	0.000198 UJ	**0.000296 J**	**0.00373 J**	**0.00309 J**
PCB-156/157	E1668C	**0.0189 J**	**0.0032 J**	**0.0035 J**	**0.453 J**	**0.494 J**
PCB-158	E1668C	**0.139 J**	**0.0255 J**	**0.0315 J**	**1.241 J**	**1.241 J**
PCB-159	E1668C	**0.105 J**	**0.0225 J**	**0.0275 J**	**0.305 J**	**0.313 J**
PCB-160	E1668C	0.0000851 UJ	0.000201 UJ	0.00000944 UJ	0.00133 UJ	0.00169 UJ
PCB-161	E1668C	0.0000535 UJ	0.000126 UJ	0.00000588 UJ	0.00129 UJ	0.00167 UJ
PCB-162	E1668C	**0.00138 J**	0.000172 UJ	**0.000292 J**	**0.0447 J**	**0.0455 J**
PCB-164	E1668C	**0.118 J**	**0.0192 J**	**0.024 J**	**1.092 J**	**1.07 J**
PCB-165	E1668C	**0.0519 J**	**0.000297 J**	**0.000971 J**	**0.0358 J**	**0.0359 J**

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID / Sample Date / Sample ID / Method	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-5-BIOC-B-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-10-BIOC-A-241030	VP12-B-C-1/2-BST 10/30/2024 HOUS-VP12-JAR-SPME-10-BIOC-B-241030	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-CTRL-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-CTRL-B
PCB-167	E1668C	**0.011 J**	**0.00181 J**	**0.00203 J**	**0.391 J**	**0.415 J**
PCB-169	E1668C	0.000494 UJ	0.000346 UJ	0.000138 UJ	**0.0293 J**	**0.0327 J**
PCB-170	E1668C	**1.013 J**	**0.181 J**	**0.228 J**	**3.867 J**	**4.254 J**
PCB-171/173	E1668C	**0.781 J**	**0.169 J**	**0.191 J**	**1.371 J**	**1.493 J**
PCB-172	E1668C	**0.209 J**	**0.0445 J**	**0.0491 J**	**0.889 J**	**1.006 J**
PCB-174	E1668C	**3.531 J**	**0.826 J**	**0.973 J**	**5.9 J**	**6.238 J**
PCB-175	E1668C	**0.117 J**	**0.0268 J**	**0.03 J**	**0.271 J**	**0.292 J**
PCB-176	E1668C	**2.117 J**	**0.503 J**	**0.608 J**	**0.871 J**	**0.917 J**
PCB-177	E1668C	**1.949 J**	**0.442 J**	**0.487 J**	**2.787 J**	**3.043 J**
PCB-178	E1668C	**1.003 J**	**0.217 J**	**0.289 J**	**1.443 J**	**1.593 J**
PCB-179	E1668C	**7.519 J**	**1.842 J**	**2.279 J**	**2.915 J**	**3.026 J**
PCB-180/193	E1668C	**2.202 J**	**0.412 J**	**0.482 J**	**11.369 J**	**12.926 J**
PCB-181	E1668C	**0.0128 J**	**0.00304 J**	**0.00314 J**	**0.0194 J**	**0.0214 J**
PCB-182	E1668C	**0.0115 J**	**0.00341 J**	**0.00288 J**	**0.0194 J**	**0.023 J**
PCB-183	E1668C	**1.502 J**	**0.326 J**	**0.345 J**	**3.188 J**	**3.542 J**
PCB-184	E1668C	**0.00593 J**	**0.00168 J**	**0.00155 J**	**0.00245 J**	0.00137 UJ
PCB-185	E1668C	**0.387 J**	**0.0669 J**	**0.0956 J**	**0.756 J**	**0.801 J**
PCB-186	E1668C	**0.00209 J**	0.000549 UJ	**0.000413 J**	0.00132 UJ	0.00127 UJ
PCB-187	E1668C	**3.431 J**	**0.778 J**	**0.894 J**	**6.754 J**	**7.311 J**
PCB-188	E1668C	**0.0155 J**	**0.00452 J**	**0.00519 J**	**0.00945 J**	**0.011 J**
PCB-189	E1668C	**0.00549 J**	**0.001 J**	**0.00127 J**	**0.191 J**	**0.224 J**
PCB-190	E1668C	**0.176 J**	**0.0217 J**	**0.0255 J**	**1.062 J**	**1.171 J**
PCB-191	E1668C	**0.0222 J**	**0.00441 J**	**0.0049 J**	**0.297 J**	**0.315 J**
PCB-192	E1668C	0.000221 UJ	0.00020 UJ	0.0000474 UJ	0.00434 UJ	0.00396 UJ
PCB-194	E1668C	**0.318 J**	**0.106 J**	**0.105 J**	**2.114 J**	**2.491 J**
PCB-195	E1668C	**0.345 J**	**0.131 J**	**0.128 J**	**0.799 J**	**0.927 J**
PCB-196	E1668C	**0.412 J**	**0.157 J**	**0.179 J**	**1.38 J**	**1.661 J**
PCB-197	E1668C	**0.0998 J**	**0.0512 J**	**0.0532 J**	**0.0798 J**	**0.0932 J**
PCB-198/199	E1668C	**0.926 J**	**0.373 J**	**0.407 J**	**2.597 J**	**3.08 J**
PCB-200	E1668C	**0.454 J**	**0.206 J**	**0.231 J**	**0.31 J**	**0.364 J**
PCB-201	E1668C	**0.194 J**	**0.0924 J**	**0.0996 J**	**0.451 J**	**0.529 J**
PCB-202	E1668C	**0.569 J**	**0.283 J**	**0.28 J**	**0.371 J**	**0.424 J**
PCB-203	E1668C	**0.455 J**	**0.166 J**	**0.189 J**	**1.497 J**	**1.798 J**
PCB-204	E1668C	**0.000514 J**	0.000117 UJ	**0.000304 J**	0.000784 UJ	0.000851 UJ
PCB-205	E1668C	**0.0104 J**	**0.00328 J**	**0.00352 J**	**0.18 J**	**0.216 J**
PCB-206	E1668C	**0.055 J**	**0.0349 J**	**0.0275 J**	**0.465 J**	**0.594 J**
PCB-207	E1668C	**0.0205 J**	**0.0142 J**	**0.0131 J**	**0.0512 J**	**0.0651 J**
PCB-208	E1668C	**0.0364 J**	**0.0265 J**	**0.0219 J**	**0.0636 J**	**0.0793 J**
PCB-209	E1668C	**0.00407 J**	**0.00397 J**	**0.00263 J**	**0.00879 J**	**0.0118 J**
Total PCB Congener (U	Calculated	**59 J**	**12 J**	**14 J**	**260 J**	**240 J**

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Method	Location ID Sample Date Sample ID	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-1-PAC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-1-PAC-B	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-2-PAC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-2-PAC-B	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-5-PAC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-5-PAC-B
PCB Congeners (SPME) (ng/L)								
PCB-001	E1668C		0.0146 UJ	0.108 UJ	**0.0211 J**	0.00865 UJ	0.0119 UJ	0.0666 UJ
PCB-002	E1668C		0.00352 UJ	0.0289 UJ	0.00287 UJ	0.0026 UJ	0.00297 UJ	0.0195 UJ
PCB-003	E1668C		0.00399 UJ	0.0318 UJ	0.00326 UJ	0.00295 UJ	0.00333 UJ	0.0215 UJ
PCB-004	E1668C		**0.0925 J**	**0.208 J**	**0.0698 J**	**0.075 J**	**0.0828 J**	**0.119 J**
PCB-005	E1668C		0.00279 UJ	0.0148 UJ	0.00274 UJ	0.0030 UJ	0.00372 UJ	0.0195 UJ
PCB-006	E1668C		**0.00976 J**	**0.0342 J**	**0.00709 J**	**0.00659 J**	**0.00912 J**	**0.0158 J**
PCB-007	E1668C		0.00231 UJ	0.0116 UJ	0.00231 UJ	0.00247 UJ	**0.00163 J**	0.0154 UJ
PCB-008	E1668C		**0.0243 J**	**0.0522 J**	**0.0207 J**	**0.0203 J**	**0.0245 J**	**0.0202 J**
PCB-009	E1668C		0.00212 UJ	**0.0108 J**	0.00211 UJ	0.00226 UJ	**0.00295 J**	0.014 UJ
PCB-010	E1668C		0.00541 UJ	0.0294 UJ	0.00422 UJ	0.00474 UJ	0.00358 UJ	0.0277 UJ
PCB-011	E1668C		0.00803 UJ	0.00676 UJ	0.00664 UJ	0.00494 UJ	0.0129 UJ	0.00896 UJ
PCB-012/013	E1668C		**0.00357 J**	0.00864 UJ	**0.0038 J**	0.0019 UJ	**0.00444 J**	0.0114 UJ
PCB-014	E1668C		0.00158 UJ	0.00735 UJ	0.00166 UJ	0.00167 UJ	0.00222 UJ	0.00971 UJ
PCB-015	E1668C		**0.0332 J**	**0.041 J**	**0.031 J**	**0.0315 J**	**0.0333 J**	**0.0233 J**
PCB-016	E1668C		**0.0122 J**	**0.0354 J**	**0.0115 J**	**0.0095 J**	**0.0154 J**	0.0145 UJ
PCB-017	E1668C		**0.0713 J**	**0.124 J**	**0.0721 J**	**0.0657 J**	**0.0872 J**	**0.0779 J**
PCB-018/030	E1668C		**0.0403 J**	**0.107 J**	**0.0388 J**	**0.0349 J**	**0.0481 J**	**0.0472 J**
PCB-019	E1668C		**0.0253 J**	**0.0448 J**	**0.022 J**	**0.0219 J**	**0.0235 J**	0.0177 UJ
PCB-020/028	E1668C		**0.0494 J**	**0.0725 J**	**0.0565 J**	**0.0508 J**	**0.0641 J**	**0.046 J**
PCB-021/033	E1668C		**0.0318 J**	**0.0458 J**	**0.0353 J**	**0.0324 J**	**0.0423 J**	**0.0357 J**
PCB-022	E1668C		**0.00889 J**	**0.0121 J**	**0.0092 J**	**0.00809 J**	**0.0114 J**	**0.00738 J**
PCB-023	E1668C		0.000994 UJ	0.00508 UJ	0.00113 UJ	0.00135 UJ	0.00137 UJ	0.00534 UJ
PCB-024	E1668C		0.00162 UJ	0.00901 UJ	0.00128 UJ	0.00136 UJ	0.00168 UJ	0.00664 UJ
PCB-025	E1668C		**0.0371 J**	**0.0416 J**	**0.0473 J**	**0.0398 J**	**0.0508 J**	**0.0398 J**
PCB-026/029	E1668C		**0.023 J**	**0.0371 J**	**0.0277 J**	**0.0227 J**	**0.0306 J**	**0.019 J**
PCB-027	E1668C		**0.0137 J**	**0.0268 J**	**0.0154 J**	**0.0139 J**	**0.0183 J**	**0.0128 J**
PCB-031	E1668C		**0.0444 J**	**0.056 J**	**0.0517 J**	**0.0436 J**	**0.0578 J**	**0.0377 J**
PCB-032	E1668C		**0.0366 J**	**0.066 J**	**0.0423 J**	**0.0362 J**	**0.0487 J**	**0.0342 J**
PCB-034	E1668C		0.000852 UJ	0.00424 UJ	0.0010 UJ	0.00116 UJ	0.0012 UJ	0.00446 UJ
PCB-035	E1668C		**0.00118 J**	0.0028 UJ	**0.00161 J**	**0.00117 J**	**0.00182 J**	0.00295 UJ
PCB-036	E1668C		0.000492 UJ	0.00213 UJ	0.000646 UJ	0.000673 UJ	0.000696 UJ	0.00226 UJ
PCB-037	E1668C		**0.0187 J**	**0.0189 J**	**0.025 J**	**0.0203 J**	**0.0243 J**	**0.0157 J**
PCB-038	E1668C		**0.00386 J**	**0.00402 J**	**0.00443 J**	**0.00379 J**	**0.00505 J**	0.00315 UJ
PCB-039	E1668C		0.000529 UJ	0.00231 UJ	**0.00187 J**	0.000724 UJ	**0.00153 J**	0.00244 UJ
PCB-040/071	E1668C		**0.415 J**	**0.5 J**	**0.542 J**	**0.451 J**	**0.611 J**	**0.451 J**
PCB-041	E1668C		**0.00419 J**	0.00436 UJ	**0.00636 J**	0.00119 UJ	**0.00488 J**	0.00408 UJ
PCB-042	E1668C		**0.197 J**	**0.22 J**	**0.258 J**	**0.218 J**	**0.28 J**	**0.2 J**
PCB-043	E1668C		**0.00753 J**	0.00325 UJ	**0.0126 J**	**0.0119 J**	**0.00956 J**	**0.00807 J**
PCB-044/047/065	E1668C		**4.643 J**	**5.284 J**	**6.132 J**	**5.097 J**	**6.726 J**	**4.704 J**
PCB-045	E1668C		**0.101 J**	**0.212 J**	**0.135 J**	**0.113 J**	**0.247 J**	**0.222 J**
PCB-046	E1668C		**0.0213 J**	**0.0251 J**	**0.0251 J**	**0.0226 J**	**0.0285 J**	**0.0209 J**
PCB-048	E1668C		**0.0138 J**	0.0031 UJ	**0.0167 J**	**0.0139 J**	**0.0213 J**	**0.0142 J**
PCB-049/069	E1668C		**2.676 J**	**2.686 J**	**3.962 J**	**2.955 J**	**3.971 J**	**2.445 J**
PCB-050/053	E1668C		**1.156 J**	**1.367 J**	**1.509 J**	**1.291 J**	**1.62 J**	**1.229 J**

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-1-PAC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-1-PAC-B	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-2-PAC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-2-PAC-B	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-5-PAC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-5-PAC-B
PCB-051	E1668C	**0.377 J**	**0.409 J**	**0.466 J**	**0.416 J**	**0.501 J**	**0.341 J**
PCB-052	E1668C	**5.224 J**	**5.556 J**	**7.44 J**	**5.792 J**	**7.861 J**	**5.047 J**
PCB-054	E1668C	**0.0801 J**	**0.0883 J**	**0.0932 J**	**0.0824 J**	**0.103 J**	**0.0904 J**
PCB-055	E1668C	0.00575 UJ	0.00897 UJ	0.0067 UJ	0.00491 UJ	0.00853 UJ	0.00777 UJ
PCB-056	E1668C	**0.0794 J**	**0.0668 J**	**0.121 J**	**0.0833 J**	**0.118 J**	**0.0655 J**
PCB-057	E1668C	0.00579 UJ	0.00876 UJ	0.00699 UJ	0.00497 UJ	0.00882 UJ	0.00764 UJ
PCB-058	E1668C	**0.0254 J**	**0.0301 J**	**0.0398 J**	0.00435 UJ	**0.0418 J**	0.00662 UJ
PCB-059/062/075	E1668C	**0.127 J**	**0.142 J**	**0.183 J**	**0.142 J**	**0.195 J**	**0.125 J**
PCB-060	E1668C	**0.014 J**	0.0109 UJ	**0.022 J**	**0.0143 J**	**0.0203 J**	**0.0104 J**
PCB-061/070/074/076	E1668C	**1.042 J**	**1.039 J**	**1.509 J**	**1.1 J**	**1.533 J**	**0.965 J**
PCB-063	E1668C	**0.0101 J**	0.00924 UJ	**0.0161 J**	**0.0112 J**	**0.0142 J**	0.00806 UJ
PCB-064	E1668C	**0.252 J**	**0.256 J**	**0.363 J**	**0.278 J**	**0.377 J**	**0.236 J**
PCB-066	E1668C	**0.581 J**	**0.515 J**	**0.922 J**	**0.609 J**	**0.895 J**	**0.497 J**
PCB-067	E1668C	0.00492 UJ	0.00725 UJ	0.00606 UJ	**0.0258 J**	0.00727 UJ	0.00634 UJ
PCB-068	E1668C	**0.0492 J**	**0.0443 J**	**0.0788 J**	**0.0523 J**	**0.0827 J**	**0.041 J**
PCB-072	E1668C	**0.0689 J**	**0.0594 J**	**0.115 J**	**0.075 J**	**0.11 J**	**0.0563 J**
PCB-073	E1668C	**0.145 J**	**0.15 J**	**0.211 J**	**0.155 J**	**0.211 J**	**0.129 J**
PCB-077	E1668C	**0.0387 J**	**0.0327 J**	**0.0807 J**	**0.0536 J**	**0.0545 J**	**0.0285 J**
PCB-078	E1668C	0.00427 UJ	0.0058 UJ	0.00577 UJ	0.00374 UJ	0.0067 UJ	0.00515 UJ
PCB-079	E1668C	**0.0703 J**	**0.0719 J**	**0.121 J**	**0.0746 J**	**0.126 J**	**0.0624 J**
PCB-080	E1668C	0.00329 UJ	0.00414 UJ	0.00483 UJ	0.00293 UJ	0.00535 UJ	0.00379 UJ
PCB-081	E1668C	0.00421 UJ	0.00564 UJ	0.00572 UJ	0.00369 UJ	0.00656 UJ	0.00502 UJ
PCB-082	E1668C	**0.912 J**	**0.882 J**	**1.446 J**	**0.918 J**	**1.448 J**	**0.809 J**
PCB-083	E1668C	**0.988 J**	**1.36 J**	**0.928 J**	**0.586 J**	**1.412 J**	**0.428 J**
PCB-084	E1668C	**5.197 J**	**5.578 J**	**7.258 J**	**5.309 J**	**7.974 J**	**5.237 J**
PCB-085/116	E1668C	**2.165 J**	**2.041 J**	**3.545 J**	**2.188 J**	**3.381 J**	**1.853 J**
PCB-086/087/097/109/	E1668C	**9.599 J**	**9.185 J**	**14.415 J**	**9.689 J**	**15.298 J**	**8.591 J**
PCB-088	E1668C	0.237 UJ	0.257 UJ	0.325 UJ	0.242 UJ	0.354 UJ	0.26 UJ
PCB-089	E1668C	0.201 UJ	0.22 UJ	0.276 UJ	0.205 UJ	0.328 UJ	0.223 UJ
PCB-090/101/113	E1668C	**24.144 J**	**23.783 J**	**38.592 J**	**24.719 J**	**38.904 J**	**21.736 J**
PCB-091	E1668C	**5.034 J**	**5.631 J**	**7.293 J**	**5.109 J**	**8.877 J**	**4.968 J**
PCB-092	E1668C	**6.32 J**	**6.068 J**	**10.158 J**	**6.537 J**	**10.466 J**	**5.527 J**
PCB-093/100	E1668C	**1.195 J**	**1.568 J**	**1.647 J**	**1.25 J**	**1.996 J**	**1.289 J**
PCB-094	E1668C	**0.431 J**	**0.524 J**	**0.613 J**	**0.438 J**	**0.713 J**	**0.454 J**
PCB-095	E1668C	**35.343 J**	**39.485 J**	**51.518 J**	**36.11 J**	**55.776 J**	**36.433 J**
PCB-096	E1668C	**0.655 J**	**0.9 J**	**0.727 J**	**0.645 J**	**0.947 J**	**0.884 J**
PCB-098	E1668C	0.163 UJ	0.18 UJ	0.232 UJ	0.168 UJ	0.309 UJ	0.183 UJ
PCB-099	E1668C	**5.753 J**	**5.553 J**	**9.648 J**	**6.056 J**	**10.187 J**	**5.239 J**
PCB-102	E1668C	**0.613 J**	**0.717 J**	**0.915 J**	**0.581 J**	**0.879 J**	**0.623 J**
PCB-103	E1668C	**0.872 J**	**0.988 J**	**1.304 J**	**0.899 J**	**1.448 J**	**0.843 J**
PCB-104	E1668C	**0.0747 J**	**0.1 J**	**0.0823 J**	**0.0717 J**	**0.104 J**	**0.0967 J**
PCB-105	E1668C	**0.66 J**	**0.511 J**	**1.284 J**	**0.694 J**	**1.103 J**	**0.554 J**
PCB-106	E1668C	0.0603 UJ	0.0487 UJ	0.118 UJ	0.0658 UJ	0.11 UJ	0.0556 UJ
PCB-107	E1668C	**0.184 J**	**0.135 J**	**0.365 J**	**0.186 J**	**0.322 J**	**0.14 J**
PCB-108/124	E1668C	**0.197 J**	**0.151 J**	**0.406 J**	**0.21 J**	**0.339 J**	**0.158 J**

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID / Sample Date / Sample ID / Method	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-1-PAC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-1-PAC-B	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-2-PAC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-2-PAC-B	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-5-PAC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-5-PAC-B
PCB-110	E1668C	**13.264 J**	**10.451 J**	**23.498 J**	**13.792 J**	**23.501 J**	**10.267 J**
PCB-111	E1668C	0.0551 UJ	0.0402 UJ	0.117 UJ	0.0612 UJ	0.104 UJ	0.0499 UJ
PCB-112	E1668C	0.0721 UJ	0.0648 UJ	0.124 UJ	0.0765 UJ	0.133 UJ	0.0687 UJ
PCB-114	E1668C	0.0576 UJ	0.0507 UJ	0.113 UJ	0.0626 UJ	0.11 UJ	0.0513 UJ
PCB-115	E1668C	0.0718 UJ	0.0659 UJ	0.127 UJ	0.0764 UJ	0.119 UJ	0.0708 UJ
PCB-117	E1668C	**0.191 J**	**0.147 J**	**0.265 J**	**0.202 J**	**0.298 J**	**0.15 J**
PCB-118	E1668C	**2.12 J**	**1.472 J**	**4.385 J**	**2.228 J**	**3.576 J**	**1.563 J**
PCB-120	E1668C	**0.0489 J**	**0.036 J**	0.0928 UJ	**0.0476 J**	0.0819 UJ	0.0393 UJ
PCB-121	E1668C	0.0592 UJ	0.0466 UJ	0.116 UJ	0.0648 UJ	0.11 UJ	0.0532 UJ
PCB-122	E1668C	0.0743 UJ	0.0662 UJ	0.146 UJ	0.0809 UJ	0.141 UJ	0.0665 UJ
PCB-123	E1668C	**0.0714 J**	**0.0577 J**	**0.157 J**	**0.0824 J**	**0.13 J**	**0.0568 J**
PCB-126	E1668C	**0.00898 J**	**0.00626 J**	**0.0255 J**	**0.0138 J**	**0.0167 J**	**0.00663 J**
PCB-127	E1668C	0.0379 UJ	0.0269 UJ	0.0886 UJ	0.0437 UJ	0.0775 UJ	0.0416 UJ
PCB-128/166	E1668C	**1.529 J**	**1.27 J**	**3.235 J**	**1.607 J**	**2.724 J**	**1.408 J**
PCB-129/138/163	E1668C	**23.226 J**	**17.606 J**	**44.028 J**	**23.636 J**	**41.854 J**	**16.136 J**
PCB-130	E1668C	**1.104 J**	**0.759 J**	**2.197 J**	**1.105 J**	**2.06 J**	**0.725 J**
PCB-131	E1668C	**0.27 J**	**0.237 J**	**0.47 J**	**0.275 J**	**0.485 J**	**0.198 J**
PCB-132	E1668C	**11.267 J**	**8.898 J**	**19.209 J**	**10.946 J**	**19.86 J**	**7.55 J**
PCB-133	E1668C	**0.376 J**	**0.268 J**	**0.791 J**	**0.384 J**	**0.734 J**	**0.268 J**
PCB-134	E1668C	**2.216 J**	**1.796 J**	**3.659 J**	**2.159 J**	**3.567 J**	**1.487 J**
PCB-135/151	E1668C	**19.749 J**	**16.398 J**	**34.369 J**	**19.542 J**	**36.134 J**	**13.928 J**
PCB-136	E1668C	**7.247 J**	**6.212 J**	**12.828 J**	**6.865 J**	**11.829 J**	**6.421 J**
PCB-137	E1668C	**0.349 J**	**0.275 J**	**0.741 J**	**0.366 J**	**0.707 J**	**0.233 J**
PCB-139/140	E1668C	**0.303 J**	**0.25 J**	**0.543 J**	**0.305 J**	**0.581 J**	**0.208 J**
PCB-141	E1668C	**6.049 J**	**4.321 J**	**12.246 J**	**6.097 J**	**11.512 J**	**4.179 J**
PCB-142	E1668C	0.00126 UJ	0.00213 UJ	0.00232 UJ	0.0014 UJ	0.00151 UJ	0.00174 UJ
PCB-143	E1668C	0.000994 UJ	0.00161 UJ	0.00194 UJ	0.00112 UJ	0.00133 UJ	0.00138 UJ
PCB-144	E1668C	**2.23 J**	**1.729 J**	**3.998 J**	**2.232 J**	**4.218 J**	**1.474 J**
PCB-145	E1668C	**0.0137 J**	**0.0189 J**	0.00166 UJ	0.00122 UJ	**0.0219 J**	**0.0169 J**
PCB-146	E1668C	**3.402 J**	**2.222 J**	**7.18 J**	**3.484 J**	**6.525 J**	**2.334 J**
PCB-147/149	E1668C	**30.364 J**	**28.209 J**	**52.587 J**	**30.89 J**	**53.435 J**	**24.614 J**
PCB-148	E1668C	**0.0972 J**	**0.0838 J**	**0.18 J**	**0.0996 J**	**0.196 J**	**0.07 J**
PCB-150	E1668C	**0.235 J**	**0.279 J**	**0.304 J**	**0.211 J**	**0.37 J**	**0.23 J**
PCB-152	E1668C	**0.145 J**	**0.189 J**	**0.176 J**	**0.128 J**	**0.215 J**	**0.152 J**
PCB-153/168	E1668C	**17.337 J**	**13.43 J**	**36.679 J**	**18.297 J**	**32.213 J**	**14.847 J**
PCB-154	E1668C	**0.485 J**	**0.389 J**	**0.954 J**	**0.496 J**	**0.966 J**	**0.334 J**
PCB-155	E1668C	**0.00457 J**	**0.00405 J**	**0.00833 J**	**0.00439 J**	**0.0084 J**	**0.00386 J**
PCB-156/157	E1668C	**0.34 J**	**0.23 J**	**0.888 J**	**0.372 J**	**0.656 J**	**0.425 J**
PCB-158	E1668C	**1.34 J**	**0.856 J**	**3.159 J**	**1.409 J**	**2.662 J**	**1.094 J**
PCB-159	E1668C	**0.183 J**	**0.164 J**	**0.458 J**	**0.195 J**	**0.369 J**	**0.286 J**
PCB-160	E1668C	0.000488 UJ	0.00067 UJ	0.00119 UJ	0.00058 UJ	0.000694 UJ	0.000769 UJ
PCB-161	E1668C	0.000364 UJ	0.000472 UJ	0.000982 UJ	0.000444 UJ	0.000484 UJ	0.00069 UJ
PCB-162	E1668C	**0.0272 J**	**0.0201 J**	**0.0712 J**	**0.0303 J**	**0.0528 J**	**0.0387 J**
PCB-164	E1668C	**1.174 J**	**0.726 J**	**2.742 J**	**1.221 J**	**2.403 J**	**0.969 J**
PCB-165	E1668C	**0.0369 J**	**0.0223 J**	**0.0737 J**	**0.0391 J**	**0.0603 J**	**0.0248 J**

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID / Sample Date / Sample ID / Method	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-1-PAC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-1-PAC-B	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-2-PAC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-2-PAC-B	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-5-PAC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-5-PAC-B
PCB-167	E1668C	**0.232 J**	**0.16 J**	**0.644 J**	**0.263 J**	**0.465 J**	**0.344 J**
PCB-169	E1668C	**0.0273 J**	**0.0252 J**	**0.0643 J**	**0.031 J**	**0.0544 J**	**0.0309 J**
PCB-170	E1668C	**2.673 J**	**1.994 J**	**6.989 J**	**2.814 J**	**5.49 J**	**3.566 J**
PCB-171/173	E1668C	**1.369 J**	**1.074 J**	**3.22 J**	**1.422 J**	**2.864 J**	**1.331 J**
PCB-172	E1668C	**0.517 J**	**0.403 J**	**1.475 J**	**0.567 J**	**1.144 J**	**0.798 J**
PCB-174	E1668C	**5.542 J**	**4.534 J**	**12.783 J**	**5.697 J**	**11.356 J**	**5.738 J**
PCB-175	E1668C	**0.217 J**	**0.184 J**	**0.524 J**	**0.231 J**	**0.456 J**	**0.261 J**
PCB-176	E1668C	**1.561 J**	**1.534 J**	**2.568 J**	**1.48 J**	**2.742 J**	**1.168 J**
PCB-177	E1668C	**2.955 J**	**2.34 J**	**6.716 J**	**3.029 J**	**6.102 J**	**2.784 J**
PCB-178	E1668C	**1.382 J**	**1.12 J**	**3.001 J**	**1.406 J**	**2.619 J**	**1.505 J**
PCB-179	E1668C	**5.512 J**	**5.435 J**	**8.748 J**	**5.15 J**	**9.416 J**	**4.05 J**
PCB-180/193	E1668C	**6.008 J**	**4.793 J**	**17.168 J**	**6.738 J**	**12.569 J**	**10.26 J**
PCB-181	E1668C	**0.0182 J**	**0.0151 J**	**0.0428 J**	**0.0192 J**	**0.0395 J**	**0.0186 J**
PCB-182	E1668C	**0.0171 J**	**0.0145 J**	**0.0479 J**	**0.0209 J**	**0.0328 J**	**0.0217 J**
PCB-183	E1668C	**2.57 J**	**2.107 J**	**6.265 J**	**2.728 J**	**5.432 J**	**3.146 J**
PCB-184	E1668C	**0.00404 J**	**0.00384 J**	**0.00685 J**	**0.00416 J**	**0.00739 J**	**0.00363 J**
PCB-185	E1668C	**0.69 J**	**0.593 J**	**1.588 J**	**0.712 J**	**1.555 J**	**0.745 J**
PCB-186	E1668C	0.000476 UJ	0.000909 UJ	0.000863 UJ	0.000515 UJ	0.000578 UJ	0.000947 UJ
PCB-187	E1668C	**5.583 J**	**4.666 J**	**13.465 J**	**5.901 J**	**11.469 J**	**6.56 J**
PCB-188	E1668C	**0.0159 J**	**0.0167 J**	**0.0274 J**	**0.0158 J**	**0.029 J**	**0.0121 J**
PCB-189	E1668C	**0.0383 J**	**0.0371 J**	**0.141 J**	**0.0472 J**	**0.0868 J**	**0.168 J**
PCB-190	E1668C	**0.451 J**	**0.348 J**	**1.338 J**	**0.492 J**	**0.946 J**	**0.946 J**
PCB-191	E1668C	**0.0876 J**	**0.0764 J**	**0.289 J**	**0.0994 J**	**0.198 J**	**0.243 J**
PCB-192	E1668C	0.000428 UJ	0.000591 UJ	0.00156 UJ	0.000594 UJ	0.000935 UJ	0.00265 UJ
PCB-194	E1668C	**0.358 J**	**0.442 J**	**1.431 J**	**0.462 J**	**0.857 J**	**1.961 J**
PCB-195	E1668C	**0.257 J**	**0.252 J**	**0.846 J**	**0.308 J**	**0.58 J**	**0.731 J**
PCB-196	E1668C	**0.356 J**	**0.368 J**	**1.203 J**	**0.427 J**	**0.787 J**	**1.293 J**
PCB-197	E1668C	**0.0494 J**	**0.0458 J**	**0.132 J**	**0.0577 J**	**0.106 J**	**0.0783 J**
PCB-198/199	E1668C	**0.748 J**	**0.743 J**	**2.467 J**	**0.884 J**	**1.601 J**	**2.496 J**
PCB-200	E1668C	**0.213 J**	**0.186 J**	**0.534 J**	**0.237 J**	**0.457 J**	**0.303 J**
PCB-201	E1668C	**0.123 J**	**0.134 J**	**0.394 J**	**0.15 J**	**0.293 J**	**0.43 J**
PCB-202	E1668C	**0.22 J**	**0.198 J**	**0.571 J**	**0.25 J**	**0.485 J**	**0.359 J**
PCB-203	E1668C	**0.39 J**	**0.404 J**	**1.329 J**	**0.475 J**	**0.85 J**	**1.4 J**
PCB-204	E1668C	**0.00026 J**	0.00012 UJ	0.000416 UJ	**0.000245 J**	**0.000594 J**	0.000432 UJ
PCB-205	E1668C	**0.0169 J**	**0.0287 J**	**0.0769 J**	**0.0225 J**	**0.041 J**	**0.172 J**
PCB-206	E1668C	**0.0381 J**	**0.0794 J**	**0.187 J**	**0.0545 J**	**0.0962 J**	**0.459 J**
PCB-207	E1668C	**0.011 J**	**0.0141 J**	**0.0426 J**	**0.0152 J**	**0.0272 J**	**0.0462 J**
PCB-208	E1668C	**0.0147 J**	**0.0175 J**	**0.0548 J**	**0.0198 J**	**0.0346 J**	**0.0571 J**
PCB-209	E1668C	**0.00149 J**	**0.00214 J**	**0.00669 J**	**0.00217 J**	**0.00367 J**	**0.00783 J**
Total PCB Congener (U	Calculated	**310 J**	**280 J**	**550 J**	**310 J**	**530 J**	**280 J**

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Method	Location ID Sample Date Sample ID VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-2-GAC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-2-GAC-B	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-5-GAC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-5-GAC-B	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-5-BIOC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-5-BIOC-B
PCB Congeners (SPME) (ng/L)							
PCB-001	E1668C	0.0763 UJ	0.0861 UJ	0.013 UJ	**0.031 J**	**0.0259 J**	**0.0246 J**
PCB-002	E1668C	0.0193 UJ	0.0226 UJ	0.00498 UJ	0.00246 UJ	0.00288 UJ	0.00315 UJ
PCB-003	E1668C	0.0212 UJ	0.0248 UJ	0.00558 UJ	0.00276 UJ	0.00323 UJ	0.00352 UJ
PCB-004	E1668C	**0.0817 J**	**0.0843 J**	**0.0823 J**	**0.0923 J**	**0.0874 J**	**0.0804 J**
PCB-005	E1668C	0.0282 UJ	0.0221 UJ	0.00518 UJ	0.00259 UJ	0.00246 UJ	0.00265 UJ
PCB-006	E1668C	0.0194 UJ	0.0152 UJ	**0.00859 J**	**0.0119 J**	**0.00588 J**	**0.00918 J**
PCB-007	E1668C	0.0223 UJ	0.0174 UJ	0.00438 UJ	0.0021 UJ	0.00201 UJ	0.00219 UJ
PCB-008	E1668C	**0.0219 J**	**0.019 J**	**0.0257 J**	**0.0238 J**	**0.0175 J**	**0.0192 J**
PCB-009	E1668C	0.0203 UJ	0.0159 UJ	0.00406 UJ	0.00195 UJ	0.00187 UJ	0.00203 UJ
PCB-010	E1668C	0.0285 UJ	0.0393 UJ	0.00518 UJ	0.00306 UJ	0.00383 UJ	0.00372 UJ
PCB-011	E1668C	0.013 UJ	0.0101 UJ	0.0113 UJ	0.00387 UJ	0.00368 UJ	0.00471 UJ
PCB-012/013	E1668C	0.0165 UJ	0.0129 UJ	0.00351 UJ	**0.00309 J**	**0.00232 J**	**0.00272 J**
PCB-014	E1668C	0.0141 UJ	0.011 UJ	0.00315 UJ	0.00137 UJ	0.00135 UJ	0.00149 UJ
PCB-015	E1668C	**0.0253 J**	**0.0216 J**	**0.0381 J**	**0.0252 J**	**0.0242 J**	**0.026 J**
PCB-016	E1668C	0.015 UJ	0.0162 UJ	**0.0108 J**	**0.0142 J**	**0.0122 J**	**0.0114 J**
PCB-017	E1668C	**0.0644 J**	**0.0718 J**	**0.0652 J**	**0.0692 J**	**0.0645 J**	**0.0545 J**
PCB-018/030	E1668C	**0.0364 J**	**0.0336 J**	**0.0369 J**	**0.0421 J**	**0.0372 J**	**0.0316 J**
PCB-019	E1668C	0.0182 UJ	**0.0221 J**	**0.0192 J**	**0.0223 J**	**0.022 J**	**0.0197 J**
PCB-020/028	E1668C	**0.0382 J**	**0.0429 J**	**0.0538 J**	**0.0428 J**	**0.0443 J**	**0.0387 J**
PCB-021/033	E1668C	**0.0236 J**	**0.0264 J**	**0.029 J**	**0.0303 J**	**0.0284 J**	**0.024 J**
PCB-022	E1668C	**0.00603 J**	**0.00617 J**	**0.00948 J**	**0.00747 J**	**0.00719 J**	**0.00652 J**
PCB-023	E1668C	0.00506 UJ	0.00493 UJ	0.00214 UJ	0.000771 UJ	0.000575 UJ	0.000916 UJ
PCB-024	E1668C	0.00688 UJ	0.00742 UJ	0.00219 UJ	0.000944 UJ	0.00099 UJ	0.00111 UJ
PCB-025	E1668C	**0.0309 J**	**0.0367 J**	**0.0384 J**	**0.0347 J**	**0.0327 J**	**0.0287 J**
PCB-026/029	E1668C	**0.0176 J**	**0.0188 J**	**0.0242 J**	**0.0213 J**	**0.0206 J**	**0.0182 J**
PCB-027	E1668C	**0.00975 J**	**0.0142 J**	**0.0148 J**	**0.0135 J**	**0.0127 J**	**0.0111 J**
PCB-031	E1668C	**0.0323 J**	**0.0315 J**	**0.0458 J**	**0.0371 J**	**0.0379 J**	**0.0334 J**
PCB-032	E1668C	**0.0299 J**	**0.0367 J**	**0.0391 J**	**0.0345 J**	**0.0334 J**	**0.0304 J**
PCB-034	E1668C	0.00423 UJ	0.00413 UJ	0.00188 UJ	0.000653 UJ	**0.000597 J**	0.00079 UJ
PCB-035	E1668C	0.00281 UJ	0.00274 UJ	0.00138 UJ	**0.00112 J**	**0.00107 J**	**0.000985 J**
PCB-036	E1668C	0.00215 UJ	0.0021 UJ	0.00108 UJ	0.00035 UJ	0.000269 UJ	0.00044 UJ
PCB-037	E1668C	**0.0123 J**	**0.0141 J**	**0.0196 J**	**0.0147 J**	**0.0159 J**	**0.0146 J**
PCB-038	E1668C	0.00299 UJ	0.00292 UJ	**0.00363 J**	**0.003 J**	**0.00262 J**	**0.00204 J**
PCB-039	E1668C	0.00233 UJ	0.00227 UJ	0.0012 UJ	0.00039 UJ	**0.000843 J**	0.000491 UJ
PCB-040/071	E1668C	**0.322 J**	**0.394 J**	**0.442 J**	**0.377 J**	**0.392 J**	**0.312 J**
PCB-041	E1668C	0.00359 UJ	0.00341 UJ	0.00177 UJ	**0.00362 J**	0.000618 UJ	0.000889 UJ
PCB-042	E1668C	**0.148 J**	**0.182 J**	**0.208 J**	**0.174 J**	**0.187 J**	**0.147 J**
PCB-043	E1668C	**0.00375 J**	0.00254 UJ	0.00126 UJ	**0.00649 J**	**0.00805 J**	**0.00512 J**
PCB-044/047/065	E1668C	**3.328 J**	**4.156 J**	**4.632 J**	**4.171 J**	**4.367 J**	**3.378 J**
PCB-045	E1668C	**0.149 J**	**0.137 J**	**0.0851 J**	**0.134 J**	**0.103 J**	**0.0958 J**
PCB-046	E1668C	**0.0142 J**	**0.0192 J**	**0.0195 J**	**0.0181 J**	**0.02 J**	**0.0145 J**
PCB-048	E1668C	0.00255 UJ	0.00243 UJ	**0.0138 J**	**0.0119 J**	**0.0131 J**	**0.00961 J**
PCB-049/069	E1668C	**1.743 J**	**2.194 J**	**2.725 J**	**2.322 J**	**2.446 J**	**1.942 J**
PCB-050/053	E1668C	**0.896 J**	**1.144 J**	**1.129 J**	**1.058 J**	**1.082 J**	**0.835 J**

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID / Sample Date / Sample ID / Method	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-2-GAC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-2-GAC-B	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-5-GAC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-5-GAC-B	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-5-BIOC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-5-BIOC-B
PCB-051	E1668C	**0.257 J**	**0.354 J**	**0.434 J**	**0.355 J**	**0.391 J**	**0.287 J**
PCB-052	E1668C	**3.595 J**	**4.565 J**	**5.399 J**	**4.787 J**	**4.967 J**	**3.918 J**
PCB-054	E1668C	**0.0628 J**	**0.0803 J**	**0.079 J**	**0.075 J**	**0.0725 J**	**0.0633 J**
PCB-055	E1668C	0.0051 UJ	0.00663 UJ	0.00526 UJ	0.00374 UJ	0.00475 UJ	0.0036 UJ
PCB-056	E1668C	**0.0485 J**	**0.0593 J**	**0.0911 J**	**0.0662 J**	**0.0693 J**	**0.0589 J**
PCB-057	E1668C	0.00502 UJ	0.00655 UJ	0.00541 UJ	0.00383 UJ	0.00486 UJ	0.00369 UJ
PCB-058	E1668C	0.00436 UJ	**0.0186 J**	**0.0276 J**	**0.0195 J**	**0.0222 J**	**0.0162 J**
PCB-059/062/075	E1668C	**0.091 J**	**0.112 J**	**0.137 J**	**0.11 J**	**0.118 J**	**0.0959 J**
PCB-060	E1668C	**0.0115 J**	**0.00899 J**	**0.0176 J**	**0.0123 J**	**0.0124 J**	**0.0107 J**
PCB-061/070/074/076	E1668C	**0.672 J**	**0.82 J**	**1.114 J**	**0.879 J**	**0.905 J**	**0.757 J**
PCB-063	E1668C	0.00531 UJ	0.00693 UJ	**0.011 J**	**0.00882 J**	**0.0084 J**	**0.00736 J**
PCB-064	E1668C	**0.173 J**	**0.216 J**	**0.269 J**	**0.22 J**	**0.23 J**	**0.189 J**
PCB-066	E1668C	**0.355 J**	**0.429 J**	**0.647 J**	**0.484 J**	**0.496 J**	**0.424 J**
PCB-067	E1668C	0.00421 UJ	0.00546 UJ	0.00444 UJ	0.00314 UJ	0.00398 UJ	0.00304 UJ
PCB-068	E1668C	**0.0313 J**	**0.0356 J**	**0.0587 J**	**0.0425 J**	**0.0446 J**	**0.0366 J**
PCB-072	E1668C	**0.0403 J**	**0.0517 J**	**0.0781 J**	**0.0607 J**	**0.0623 J**	**0.0517 J**
PCB-073	E1668C	**0.0969 J**	**0.131 J**	**0.143 J**	**0.123 J**	**0.14 J**	**0.105 J**
PCB-077	E1668C	**0.0257 J**	**0.031 J**	**0.0402 J**	**0.0316 J**	**0.0432 J**	**0.0354 J**
PCB-078	E1668C	0.00353 UJ	0.00455 UJ	0.00404 UJ	0.00285 UJ	0.00357 UJ	0.00275 UJ
PCB-079	E1668C	**0.0492 J**	**0.0514 J**	**0.0811 J**	**0.0626 J**	**0.065 J**	**0.0492 J**
PCB-080	E1668C	0.00272 UJ	0.00348 UJ	0.00318 UJ	0.00228 UJ	0.00279 UJ	0.00216 UJ
PCB-081	E1668C	0.00346 UJ	0.00446 UJ	0.00395 UJ	0.00279 UJ	0.00349 UJ	0.00268 UJ
PCB-082	E1668C	**0.578 J**	**0.714 J**	**0.942 J**	**0.779 J**	**0.813 J**	**0.608 J**
PCB-083	E1668C	**0.505 J**	**0.434 J**	**0.833 J**	**0.606 J**	**1.523 J**	**0.817 J**
PCB-084	E1668C	**3.456 J**	**4.648 J**	**5.164 J**	**4.455 J**	**4.66 J**	**3.467 J**
PCB-085/116	E1668C	**1.3 J**	**1.618 J**	**2.169 J**	**1.817 J**	**1.831 J**	**1.431 J**
PCB-086/087/097/109/	E1668C	**5.82 J**	**7.308 J**	**9.887 J**	**8.069 J**	**8.392 J**	**6.477 J**
PCB-088	E1668C	0.178 UJ	0.218 UJ	0.216 UJ	0.18 UJ	0.182 UJ	0.144 UJ
PCB-089	E1668C	0.152 UJ	0.187 UJ	0.20 UJ	0.167 UJ	0.169 UJ	0.133 UJ
PCB-090/101/113	E1668C	**14.946 J**	**18.743 J**	**24.829 J**	**20.185 J**	**19.755 J**	**16.183 J**
PCB-091	E1668C	**3.276 J**	**4.278 J**	**5.569 J**	**4.671 J**	**4.939 J**	**3.718 J**
PCB-092	E1668C	**3.785 J**	**4.742 J**	**6.405 J**	**5.427 J**	**5.562 J**	**4.281 J**
PCB-093/100	E1668C	**0.847 J**	**1.077 J**	**1.225 J**	**1.064 J**	**1.125 J**	**0.817 J**
PCB-094	E1668C	**0.299 J**	**0.396 J**	**0.444 J**	**0.373 J**	**0.398 J**	**0.289 J**
PCB-095	E1668C	**23.8 J**	**31.62 J**	**36.279 J**	**29.958 J**	**29.475 J**	**24.165 J**
PCB-096	E1668C	**0.541 J**	**0.708 J**	**0.646 J**	**0.582 J**	**0.6 J**	**0.469 J**
PCB-098	E1668C	0.126 UJ	0.154 UJ	0.188 UJ	0.156 UJ	0.158 UJ	0.125 UJ
PCB-099	E1668C	**3.577 J**	**4.446 J**	**6.392 J**	**5.224 J**	**4.894 J**	**4.067 J**
PCB-102	E1668C	**0.412 J**	**0.533 J**	**0.541 J**	**0.434 J**	**0.446 J**	**0.35 J**
PCB-103	E1668C	**0.56 J**	**0.718 J**	**0.854 J**	**0.738 J**	**0.786 J**	**0.579 J**
PCB-104	E1668C	**0.0525 J**	**0.0708 J**	**0.0686 J**	**0.0601 J**	**0.0642 J**	**0.0477 J**
PCB-105	E1668C	**0.392 J**	**0.465 J**	**0.695 J**	**0.568 J**	**0.55 J**	**0.46 J**
PCB-106	E1668C	0.0458 UJ	0.0544 UJ	0.0638 UJ	0.0556 UJ	0.0521 UJ	0.0422 UJ
PCB-107	E1668C	**0.122 J**	**0.135 J**	**0.201 J**	**0.166 J**	**0.164 J**	**0.128 J**
PCB-108/124	E1668C	**0.138 J**	**0.156 J**	**0.212 J**	**0.177 J**	**0.168 J**	**0.137 J**

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Method	Location ID Sample Date Sample ID	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-2-GAC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-2-GAC-B	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-5-GAC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-5-GAC-B	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-5-BIOC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-5-BIOC-B
PCB-110	E1668C		**7.571 J**	**9.31 J**	**15.31 J**	**12.242 J**	**11.986 J**	**9.889 J**
PCB-111	E1668C		0.0445 UJ	0.0525 UJ	0.0591 UJ	0.0539 UJ	0.0487 UJ	0.0396 UJ
PCB-112	E1668C		0.0513 UJ	0.0617 UJ	0.0786 UJ	0.0655 UJ	0.0641 UJ	0.0516 UJ
PCB-114	E1668C		0.0401 UJ	0.0511 UJ	0.0648 UJ	0.0566 UJ	0.0543 UJ	0.0413 UJ
PCB-115	E1668C		0.0538 UJ	0.0644 UJ	0.0702 UJ	0.0588 UJ	0.0572 UJ	0.0461 UJ
PCB-117	E1668C		**0.107 J**	**0.144 J**	**0.178 J**	**0.138 J**	**0.163 J**	**0.14 J**
PCB-118	E1668C		**1.305 J**	**1.564 J**	**2.243 J**	**1.932 J**	**1.85 J**	**1.501 J**
PCB-120	E1668C		**0.033 J**	0.0421 UJ	0.0461 UJ	0.0423 UJ	0.0379 UJ	0.0308 UJ
PCB-121	E1668C		0.0438 UJ	0.0519 UJ	0.0634 UJ	0.0553 UJ	0.0518 UJ	0.0422 UJ
PCB-122	E1668C		0.0517 UJ	0.0658 UJ	0.0834 UJ	0.0723 UJ	0.0695 UJ	0.0531 UJ
PCB-123	E1668C		**0.0507 J**	**0.0556 J**	**0.0815 J**	**0.0684 J**	**0.0629 J**	**0.0535 J**
PCB-126	E1668C		**0.00838 J**	**0.00786 J**	**0.00985 J**	**0.00929 J**	**0.0116 J**	**0.00827 J**
PCB-127	E1668C		0.0338 UJ	0.0463 UJ	0.0424 UJ	0.0413 UJ	0.0362 UJ	0.0289 UJ
PCB-128/166	E1668C		**1.272 J**	**1.415 J**	**1.512 J**	**1.36 J**	**1.248 J**	**0.965 J**
PCB-129/138/163	E1668C		**14.01 J**	**14.915 J**	**22.784 J**	**20.109 J**	**19.822 J**	**15.143 J**
PCB-130	E1668C		**0.666 J**	**0.713 J**	**0.985 J**	**0.96 J**	**1.047 J**	**0.703 J**
PCB-131	E1668C		**0.145 J**	**0.171 J**	**0.243 J**	**0.226 J**	**0.262 J**	**0.178 J**
PCB-132	E1668C		**5.612 J**	**6.247 J**	**9.752 J**	**9.242 J**	**10.106 J**	**7.08 J**
PCB-133	E1668C		**0.253 J**	**0.27 J**	**0.329 J**	**0.344 J**	**0.362 J**	**0.247 J**
PCB-134	E1668C		**1.075 J**	**1.221 J**	**1.701 J**	**1.574 J**	**1.855 J**	**1.25 J**
PCB-135/151	E1668C		**10.574 J**	**12.014 J**	**17.013 J**	**16.716 J**	**17.574 J**	**12.651 J**
PCB-136	E1668C		**4.328 J**	**5.341 J**	**6.691 J**	**5.867 J**	**5.57 J**	**4.447 J**
PCB-137	E1668C		**0.215 J**	**0.247 J**	**0.323 J**	**0.312 J**	**0.361 J**	**0.218 J**
PCB-139/140	E1668C		**0.172 J**	**0.187 J**	**0.267 J**	**0.255 J**	**0.29 J**	**0.196 J**
PCB-141	E1668C		**3.808 J**	**4.054 J**	**5.471 J**	**5.496 J**	**5.726 J**	**3.923 J**
PCB-142	E1668C		0.00238 UJ	0.00232 UJ	0.00218 UJ	0.000766 UJ	0.000695 UJ	0.000863 UJ
PCB-143	E1668C		0.00198 UJ	0.00192 UJ	0.0019 UJ	0.000684 UJ	0.000606 UJ	0.000755 UJ
PCB-144	E1668C		**1.163 J**	**1.301 J**	**1.864 J**	**1.909 J**	**2.149 J**	**1.431 J**
PCB-145	E1668C		**0.0092 J**	0.00243 UJ	0.0021 UJ	**0.0113 J**	**0.0123 J**	0.000761 UJ
PCB-146	E1668C		**2.213 J**	**2.343 J**	**2.994 J**	**3.177 J**	**3.186 J**	**2.196 J**
PCB-147/149	E1668C		**19.092 J**	**21.169 J**	**30.095 J**	**24.697 J**	**24.261 J**	**20.166 J**
PCB-148	E1668C		**0.0587 J**	**0.0654 J**	**0.0874 J**	**0.0853 J**	**0.0949 J**	**0.0657 J**
PCB-150	E1668C		**0.135 J**	**0.168 J**	**0.209 J**	**0.165 J**	**0.185 J**	**0.142 J**
PCB-152	E1668C		**0.0828 J**	**0.109 J**	**0.126 J**	**0.098 J**	**0.102 J**	**0.0817 J**
PCB-153/168	E1668C		**14.652 J**	**15.444 J**	**17.635 J**	**16.314 J**	**14.459 J**	**11.771 J**
PCB-154	E1668C		**0.293 J**	**0.304 J**	**0.425 J**	**0.44 J**	**0.468 J**	**0.31 J**
PCB-155	E1668C		**0.00329 J**	**0.00389 J**	**0.00409 J**	**0.00392 J**	**0.00371 J**	**0.00293 J**
PCB-156/157	E1668C		**0.441 J**	**0.476 J**	**0.355 J**	**0.359 J**	**0.304 J**	**0.232 J**
PCB-158	E1668C		**1.139 J**	**1.213 J**	**1.219 J**	**1.347 J**	**1.317 J**	**0.898 J**
PCB-159	E1668C		**0.303 J**	**0.337 J**	**0.178 J**	**0.19 J**	**0.148 J**	**0.113 J**
PCB-160	E1668C		0.00137 UJ	0.00131 UJ	0.000945 UJ	0.000387 UJ	0.00031 UJ	0.000385 UJ
PCB-161	E1668C		0.00134 UJ	0.00128 UJ	0.000646 UJ	0.000287 UJ	0.000214 UJ	0.000267 UJ
PCB-162	E1668C		**0.041 J**	**0.0458 J**	**0.0293 J**	**0.0328 J**	**0.0243 J**	**0.0189 J**
PCB-164	E1668C		**1.019 J**	**1.072 J**	**1.111 J**	**1.235 J**	**1.21 J**	**0.831 J**
PCB-165	E1668C		**0.0294 J**	**0.0378 J**	**0.0222 J**	**0.0254 J**	**0.0282 J**	**0.0175 J**

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID / Sample Date / Sample ID / Method	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-2-GAC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-2-GAC-B	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-5-GAC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-5-GAC-B	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-5-BIOC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-5-BIOC-B
PCB-167	E1668C	**0.369 J**	**0.41 J**	**0.239 J**	**0.265 J**	**0.216 J**	**0.161 J**
PCB-169	E1668C	**0.0314 J**	**0.0301 J**	**0.0308 J**	**0.0259 J**	**0.0202 J**	**0.0178 J**
PCB-170	E1668C	**4.144 J**	**4.412 J**	**2.693 J**	**2.839 J**	**2.389 J**	**1.778 J**
PCB-171/173	E1668C	**1.398 J**	**1.442 J**	**1.246 J**	**1.272 J**	**1.248 J**	**0.887 J**
PCB-172	E1668C	**0.905 J**	**0.946 J**	**0.492 J**	**0.574 J**	**0.5 J**	**0.359 J**
PCB-174	E1668C	**5.79 J**	**6.241 J**	**5.104 J**	**5.236 J**	**4.884 J**	**3.602 J**
PCB-175	E1668C	**0.274 J**	**0.291 J**	**0.194 J**	**0.207 J**	**0.201 J**	**0.138 J**
PCB-176	E1668C	**0.894 J**	**0.97 J**	**1.379 J**	**1.164 J**	**1.211 J**	**0.899 J**
PCB-177	E1668C	**2.804 J**	**2.991 J**	**2.67 J**	**2.695 J**	**2.635 J**	**1.902 J**
PCB-178	E1668C	**1.462 J**	**1.593 J**	**1.235 J**	**1.284 J**	**1.151 J**	**0.836 J**
PCB-179	E1668C	**2.954 J**	**3.305 J**	**4.725 J**	**4.047 J**	**4.247 J**	**3.101 J**
PCB-180/193	E1668C	**11.449 J**	**12.055 J**	**6.093 J**	**6.837 J**	**5.475 J**	**4.212 J**
PCB-181	E1668C	**0.0191 J**	**0.0202 J**	**0.0176 J**	**0.0174 J**	**0.0164 J**	**0.0125 J**
PCB-182	E1668C	**0.0195 J**	**0.0223 J**	**0.0161 J**	**0.0151 J**	**0.0136 J**	**0.0108 J**
PCB-183	E1668C	**3.318 J**	**3.519 J**	**2.319 J**	**2.522 J**	**2.346 J**	**1.666 J**
PCB-184	E1668C	**0.00317 J**	**0.00389 J**	**0.0036 J**	**0.00334 J**	**0.00318 J**	**0.00268 J**
PCB-185	E1668C	**0.758 J**	**0.717 J**	**0.65 J**	**0.675 J**	**0.67 J**	**0.468 J**
PCB-186	E1668C	0.00106 UJ	0.00107 UJ	**0.000756 J**	**0.000854 J**	**0.000905 J**	0.000342 UJ
PCB-187	E1668C	**6.849 J**	**7.291 J**	**5.175 J**	**5.483 J**	**4.822 J**	**3.618 J**
PCB-188	E1668C	**0.0103 J**	**0.0103 J**	**0.0142 J**	**0.0122 J**	**0.0126 J**	**0.00954 J**
PCB-189	E1668C	**0.195 J**	**0.206 J**	**0.0425 J**	**0.0568 J**	**0.0377 J**	**0.0295 J**
PCB-190	E1668C	**1.125 J**	**1.217 J**	**0.442 J**	**0.536 J**	**0.42 J**	**0.305 J**
PCB-191	E1668C	**0.276 J**	**0.316 J**	**0.0856 J**	**0.113 J**	**0.0895 J**	**0.0643 J**
PCB-192	E1668C	0.0034 UJ	0.0040 UJ	0.000668 UJ	0.00052 UJ	0.000409 UJ	0.000383 UJ
PCB-194	E1668C	**2.281 J**	**2.368 J**	**0.404 J**	**0.574 J**	**0.374 J**	**0.288 J**
PCB-195	E1668C	**0.861 J**	**0.894 J**	**0.274 J**	**0.333 J**	**0.248 J**	**0.191 J**
PCB-196	E1668C	**1.467 J**	**1.533 J**	**0.371 J**	**0.496 J**	**0.333 J**	**0.258 J**
PCB-197	E1668C	**0.0902 J**	**0.089 J**	**0.0503 J**	**0.0529 J**	**0.0436 J**	**0.036 J**
PCB-198/199	E1668C	**2.794 J**	**2.931 J**	**0.765 J**	**1.007 J**	**0.686 J**	**0.531 J**
PCB-200	E1668C	**0.348 J**	**0.345 J**	**0.209 J**	**0.223 J**	**0.184 J**	**0.142 J**
PCB-201	E1668C	**0.503 J**	**0.506 J**	**0.126 J**	**0.17 J**	**0.118 J**	**0.0928 J**
PCB-202	E1668C	**0.41 J**	**0.414 J**	**0.212 J**	**0.242 J**	**0.191 J**	**0.15 J**
PCB-203	E1668C	**1.603 J**	**1.668 J**	**0.401 J**	**0.535 J**	**0.36 J**	**0.278 J**
PCB-204	E1668C	0.00069 UJ	0.00048 UJ	**0.000199 J**	**0.000231 J**	**0.000229 J**	**0.000181 J**
PCB-205	E1668C	**0.189 J**	**0.202 J**	**0.0189 J**	**0.0316 J**	**0.018 J**	**0.0142 J**
PCB-206	E1668C	**0.575 J**	**0.549 J**	**0.0452 J**	**0.0758 J**	**0.0408 J**	**0.0335 J**
PCB-207	E1668C	**0.0651 J**	**0.0582 J**	**0.0132 J**	**0.0175 J**	**0.0109 J**	**0.00939 J**
PCB-208	E1668C	**0.0802 J**	**0.0722 J**	**0.0166 J**	**0.0219 J**	**0.014 J**	**0.0117 J**
PCB-209	E1668C	**0.0109 J**	**0.00985 J**	**0.0018 J**	**0.00257 J**	**0.00153 J**	**0.00133 J**
Total PCB Congener (U	Calculated	**230 J**	**260 J**	**300 J**	**270 J**	**260 J**	**200 J**

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Method	Location ID Sample Date Sample ID	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-10-BIOC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-10-BIOC-B	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-CTRL-A-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-CTRL-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-1-PAC-A-241030
PCB Congeners (SPME) (ng/L)							
PCB-001	E1668C		**0.0334 J**	0.0797 UJ	0.0437 UJ	0.0537 UJ	0.00829 UJ
PCB-002	E1668C		0.00306 UJ	0.0237 UJ	0.0152 UJ	0.016 UJ	0.00248 UJ
PCB-003	E1668C		0.00342 UJ	0.0261 UJ	0.0173 UJ	0.0184 UJ	0.00286 UJ
PCB-004	E1668C		**0.102 J**	**0.2 J**	**0.249 J**	**0.229 J**	0.00311 UJ
PCB-005	E1668C		0.00363 UJ	0.0152 UJ	0.00754 UJ	0.0069 UJ	0.00278 UJ
PCB-006	E1668C		**0.0104 J**	**0.0357 J**	**0.0554 J**	**0.0638 J**	0.0019 UJ
PCB-007	E1668C		0.00305 UJ	0.012 UJ	**0.00767 J**	0.00544 UJ	0.0022 UJ
PCB-008	E1668C		**0.027 J**	**0.063 J**	**0.103 J**	**0.101 J**	0.0013 UJ
PCB-009	E1668C		0.00283 UJ	0.0109 UJ	**0.00793 J**	**0.00979 J**	0.00201 UJ
PCB-010	E1668C		**0.00331 J**	0.0316 UJ	**0.0125 J**	**0.0129 J**	0.00248 UJ
PCB-011	E1668C		0.00954 UJ	0.00696 UJ	0.00556 UJ	0.00484 UJ	0.00256 UJ
PCB-012/013	E1668C		**0.00375 J**	0.00888 UJ	**0.00991 J**	**0.00609 J**	0.00162 UJ
PCB-014	E1668C		0.00217 UJ	0.00755 UJ	0.00369 UJ	0.00337 UJ	0.00141 UJ
PCB-015	E1668C		**0.0394 J**	**0.0391 J**	**0.0496 J**	**0.0354 J**	0.00125 UJ
PCB-016	E1668C		**0.0159 J**	**0.0366 J**	**0.0692 J**	**0.0654 J**	0.00233 UJ
PCB-017	E1668C		**0.0709 J**	**0.102 J**	**0.157 J**	**0.128 J**	0.00192 UJ
PCB-018/030	E1668C		**0.0414 J**	**0.0819 J**	**0.157 J**	**0.138 J**	0.0020 UJ
PCB-019	E1668C		**0.0239 J**	**0.0385 J**	**0.0735 J**	**0.0634 J**	0.00292 UJ
PCB-020/028	E1668C		**0.052 J**	**0.0738 J**	**0.0975 J**	**0.0945 J**	0.000886 UJ
PCB-021/033	E1668C		**0.0293 J**	**0.0483 J**	**0.056 J**	**0.0368 J**	0.000851 UJ
PCB-022	E1668C		**0.0093 J**	**0.0106 J**	**0.0211 J**	**0.0199 J**	0.000622 UJ
PCB-023	E1668C		0.00127 UJ	0.00595 UJ	0.00331 UJ	0.00253 UJ	0.000734 UJ
PCB-024	E1668C		0.00123 UJ	0.00668 UJ	0.00481 UJ	0.00377 UJ	0.00113 UJ
PCB-025	E1668C		**0.0355 J**	**0.0505 J**	**0.0537 J**	**0.0521 J**	0.000482 UJ
PCB-026/029	E1668C		**0.0251 J**	**0.0396 J**	**0.059 J**	**0.0577 J**	**0.000646 J**
PCB-027	E1668C		**0.0148 J**	**0.0183 J**	**0.0334 J**	**0.026 J**	0.00092 UJ
PCB-031	E1668C		**0.0437 J**	**0.059 J**	**0.0756 J**	**0.0731 J**	0.000782 UJ
PCB-032	E1668C		**0.0385 J**	**0.0506 J**	**0.0779 J**	**0.0633 J**	0.000834 UJ
PCB-034	E1668C		0.00112 UJ	0.00497 UJ	0.00271 UJ	0.00207 UJ	0.000605 UJ
PCB-035	E1668C		**0.00136 J**	0.00328 UJ	**0.00202 J**	0.00147 UJ	0.000421 UJ
PCB-036	E1668C		0.000646 UJ	0.00251 UJ	0.00149 UJ	0.00114 UJ	0.000325 UJ
PCB-037	E1668C		**0.0198 J**	**0.0193 J**	**0.0225 J**	**0.0185 J**	0.000406 UJ
PCB-038	E1668C		**0.00328 J**	0.0035 UJ	**0.00453 J**	0.00159 UJ	0.000453 UJ
PCB-039	E1668C		0.000721 UJ	0.00271 UJ	0.00158 UJ	0.00121 UJ	0.000349 UJ
PCB-040/071	E1668C		**0.397 J**	**0.479 J**	**0.551 J**	**0.501 J**	**0.00203 J**
PCB-041	E1668C		0.00125 UJ	0.00376 UJ	0.00259 UJ	0.00233 UJ	0.000422 UJ
PCB-042	E1668C		**0.189 J**	**0.227 J**	**0.261 J**	**0.233 J**	**0.00131 J**
PCB-043	E1668C		**0.00955 J**	0.0028 UJ	**0.00735 J**	**0.00889 J**	0.000302 UJ
PCB-044/047/065	E1668C		**4.382 J**	**5.154 J**	**6.302 J**	**5.581 J**	**0.0198 J**
PCB-045	E1668C		**0.0791 J**	**0.159 J**	**0.15 J**	**0.142 J**	**0.000693 J**
PCB-046	E1668C		**0.0194 J**	**0.026 J**	**0.0272 J**	**0.0264 J**	0.000584 UJ
PCB-048	E1668C		**0.0134 J**	**0.0164 J**	**0.0212 J**	**0.0197 J**	0.000293 UJ
PCB-049/069	E1668C		**2.571 J**	**2.627 J**	**3.09 J**	**2.861 J**	**0.00909 J**
PCB-050/053	E1668C		**1.062 J**	**1.369 J**	**1.509 J**	**1.362 J**	**0.00501 J**

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID / Sample Date / Sample ID / Method	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-10-BIOC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-10-BIOC-B	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-CTRL-A-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-CTRL-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-1-PAC-A-241030
PCB-051	E1668C	**0.398 J**	**0.443 J**	**0.514 J**	**0.47 J**	**0.00277 J**
PCB-052	E1668C	**5.068 J**	**5.439 J**	**6.381 J**	**5.946 J**	**0.0215 J**
PCB-054	E1668C	**0.0751 J**	**0.0918 J**	**0.104 J**	**0.0961 J**	0.000624 UJ
PCB-055	E1668C	0.0058 UJ	0.00709 UJ	0.00806 UJ	0.00552 UJ	0.00032 UJ
PCB-056	E1668C	**0.0804 J**	**0.0709 J**	**0.082 J**	**0.0719 J**	**0.000415 J**
PCB-057	E1668C	0.00599 UJ	0.00695 UJ	0.00779 UJ	0.00534 UJ	0.000307 UJ
PCB-058	E1668C	**0.025 J**	**0.026 J**	**1.155 J**	**1.034 J**	**0.00682 J**
PCB-059/062/075	E1668C	**0.126 J**	**0.137 J**	**0.136 J**	**0.138 J**	**0.000548 J**
PCB-060	E1668C	**0.0144 J**	**0.0119 J**	**0.0158 J**	**0.0117 J**	0.000388 UJ
PCB-061/070/074/076	E1668C	**1.004 J**	**0.986 J**	**1.24 J**	**1.073 J**	**0.00563 J**
PCB-063	E1668C	**0.00963 J**	**0.00792 J**	**0.00926 J**	**0.0117 J**	0.000331 UJ
PCB-064	E1668C	**0.247 J**	**0.252 J**	**0.293 J**	**0.261 J**	0.000888 UJ
PCB-066	E1668C	**0.58 J**	**0.507 J**	**0.588 J**	**0.52 J**	**0.00244 J**
PCB-067	E1668C	0.00494 UJ	0.00578 UJ	**0.0306 J**	**0.0238 J**	0.000251 UJ
PCB-068	E1668C	**0.0511 J**	**0.0415 J**	**0.0492 J**	**0.0422 J**	**0.000153 J**
PCB-072	E1668C	**0.07 J**	**0.0583 J**	**0.07 J**	**0.0588 J**	**0.000209 J**
PCB-073	E1668C	**0.134 J**	**0.156 J**	**0.161 J**	**0.154 J**	**0.000524 J**
PCB-077	E1668C	**0.0413 J**	**0.0421 J**	**0.0447 J**	**0.0349 J**	0.000298 UJ
PCB-078	E1668C	0.00453 UJ	0.00467 UJ	0.00536 UJ	0.00368 UJ	0.00021 UJ
PCB-079	E1668C	**0.0754 J**	**0.0618 J**	**0.0792 J**	**0.0715 J**	**0.000458 J**
PCB-080	E1668C	0.00361 UJ	0.0034 UJ	**0.168 J**	**0.151 J**	0.000152 UJ
PCB-081	E1668C	0.00444 UJ	0.00454 UJ	0.00539 UJ	0.0037 UJ	0.000218 UJ
PCB-082	E1668C	**0.873 J**	**0.792 J**	**1.127 J**	**1.035 J**	**0.0092 J**
PCB-083	E1668C	**0.777 J**	**0.96 J**	**1.241 J**	**1.037 J**	**0.00688 J**
PCB-084	E1668C	**4.651 J**	**5.136 J**	**7.255 J**	**6.348 J**	**0.0555 J**
PCB-085/116	E1668C	**1.973 J**	**1.836 J**	**2.683 J**	**2.401 J**	**0.0185 J**
PCB-086/087/097/109/	E1668C	**9.041 J**	**8.376 J**	**12.297 J**	**11.202 J**	**0.0851 J**
PCB-088	E1668C	0.198 UJ	0.259 UJ	0.114 UJ	0.0633 UJ	0.00023 UJ
PCB-089	E1668C	0.183 UJ	0.222 UJ	0.0969 UJ	**0.0843 J**	**0.00116 J**
PCB-090/101/113	E1668C	**23.091 J**	**20.998 J**	**31.08 J**	**28.102 J**	**0.211 J**
PCB-091	E1668C	**5.162 J**	**4.999 J**	**7.047 J**	**6.186 J**	**0.0567 J**
PCB-092	E1668C	**6.007 J**	**5.371 J**	**7.924 J**	**7.134 J**	**0.0641 J**
PCB-093/100	E1668C	**1.145 J**	**1.323 J**	**1.949 J**	**1.718 J**	**0.0196 J**
PCB-094	E1668C	**0.402 J**	**0.463 J**	**0.655 J**	**0.576 J**	**0.00683 J**
PCB-095	E1668C	**32.789 J**	**35.841 J**	**50.336 J**	**44.234 J**	**0.343 J**
PCB-096	E1668C	**0.594 J**	**0.808 J**	**1.135 J**	**1.074 J**	**0.0121 J**
PCB-098	E1668C	0.174 UJ	0.182 UJ	0.0874 UJ	**0.049 J**	**0.00144 J**
PCB-099	E1668C	**5.941 J**	**4.938 J**	**8.247 J**	**7.582 J**	**0.065 J**
PCB-102	E1668C	**0.462 J**	**0.62 J**	**0.802 J**	**0.665 J**	**0.00657 J**
PCB-103	E1668C	**0.81 J**	**0.867 J**	**1.228 J**	**1.08 J**	**0.0108 J**
PCB-104	E1668C	**0.0636 J**	**0.0872 J**	**0.118 J**	**0.11 J**	0.0015 UJ
PCB-105	E1668C	**0.66 J**	**0.478 J**	**0.663 J**	**0.622 J**	**0.00869 J**
PCB-106	E1668C	0.0614 UJ	0.0533 UJ	0.0217 UJ	0.012 UJ	0.0000419 UJ
PCB-107	E1668C	**0.19 J**	**0.125 J**	**0.172 J**	**0.161 J**	**0.00156 J**
PCB-108/124	E1668C	**0.199 J**	**0.146 J**	**0.188 J**	**0.173 J**	**0.00155 J**

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID / Sample Date / Sample ID / Method	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-10-BIOC-A	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-10-BIOC-B	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-CTRL-A-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-CTRL-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-1-PAC-A-241030
PCB-110	E1668C	**14.008 J**	**9.608 J**	**14.766 J**	**13.572 J**	**0.0936 J**
PCB-111	E1668C	0.0579 UJ	0.0464 UJ	0.0175 UJ	0.00967 UJ	**0.000117 J**
PCB-112	E1668C	0.074 UJ	0.0674 UJ	0.0291 UJ	0.016 UJ	0.0000555 UJ
PCB-114	E1668C	0.0612 UJ	0.0507 UJ	**0.0447 J**	**0.0419 J**	**0.00128 J**
PCB-115	E1668C	0.0666 UJ	0.0692 UJ	0.026 UJ	0.0143 UJ	0.0000507 UJ
PCB-117	E1668C	**0.167 J**	**0.159 J**	**0.19 J**	**0.163 J**	**0.00174 J**
PCB-118	E1668C	**2.186 J**	**1.414 J**	**1.88 J**	**1.73 J**	**0.0121 J**
PCB-120	E1668C	0.045 UJ	0.036 UJ	**0.0445 J**	**0.0423 J**	**0.00082 J**
PCB-121	E1668C	0.0609 UJ	0.0508 UJ	0.0201 UJ	**0.0162 J**	**0.000211 J**
PCB-122	E1668C	0.0782 UJ	0.0661 UJ	**0.0647 J**	**0.0593 J**	**0.000534 J**
PCB-123	E1668C	**0.077 J**	**0.0576 J**	**0.0788 J**	**0.0688 J**	**0.000813 J**
PCB-126	E1668C	**0.0107 J**	**0.00733 J**	**0.00779 J**	**0.00598 J**	0.000128 UJ
PCB-127	E1668C	0.0415 UJ	0.0319 UJ	0.0104 UJ	**0.00936 J**	**0.000309 J**
PCB-128/166	E1668C	**1.535 J**	**1.233 J**	**1.802 J**	**1.735 J**	**0.108 J**
PCB-129/138/163	E1668C	**23.767 J**	**15.457 J**	**28.068 J**	**27.058 J**	**0.748 J**
PCB-130	E1668C	**1.1 J**	**0.685 J**	**1.203 J**	**1.156 J**	**0.0365 J**
PCB-131	E1668C	**0.264 J**	**0.195 J**	**0.355 J**	**0.346 J**	**0.0098 J**
PCB-132	E1668C	**10.777 J**	**7.252 J**	**14.54 J**	**13.725 J**	**0.409 J**
PCB-133	E1668C	**0.381 J**	**0.253 J**	**0.429 J**	**0.402 J**	**0.0153 J**
PCB-134	E1668C	**1.868 J**	**1.436 J**	**2.76 J**	**2.697 J**	**0.0827 J**
PCB-135/151	E1668C	**19.026 J**	**13.489 J**	**25.422 J**	**24.756 J**	**0.748 J**
PCB-136	E1668C	**6.638 J**	**5.617 J**	**9.838 J**	**9.209 J**	**0.323 J**
PCB-137	E1668C	**0.369 J**	**0.24 J**	**0.435 J**	**0.408 J**	**0.012 J**
PCB-139/140	E1668C	**0.3 J**	**0.211 J**	**0.39 J**	**0.383 J**	**0.0131 J**
PCB-141	E1668C	**6.093 J**	**3.906 J**	**6.85 J**	**6.563 J**	**0.194 J**
PCB-142	E1668C	0.00133 UJ	0.00164 UJ	0.000214 UJ	0.000478 UJ	0.0000691 UJ
PCB-143	E1668C	0.00117 UJ	0.00128 UJ	0.000162 UJ	0.000364 UJ	0.000053 UJ
PCB-144	E1668C	**2.168 J**	**1.439 J**	**2.806 J**	**2.706 J**	**0.0748 J**
PCB-145	E1668C	0.00113 UJ	0.0022 UJ	**0.0248 J**	**0.0191 J**	**0.000909 J**
PCB-146	E1668C	**3.472 J**	**2.106 J**	**3.67 J**	**3.419 J**	**0.109 J**
PCB-147/149	E1668C	**30.507 J**	**23.404 J**	**42.816 J**	**41.59 J**	**1.323 J**
PCB-148	E1668C	**0.1 J**	**0.0698 J**	**0.126 J**	**0.122 J**	**0.00478 J**
PCB-150	E1668C	**0.213 J**	**0.233 J**	**0.477 J**	**0.432 J**	**0.0206 J**
PCB-152	E1668C	**0.121 J**	**0.149 J**	**0.293 J**	**0.27 J**	**0.0119 J**
PCB-153/168	E1668C	**18.509 J**	**13.192 J**	**20.397 J**	**18.901 J**	**0.566 J**
PCB-154	E1668C	**0.495 J**	**0.35 J**	**0.671 J**	**0.636 J**	**0.0231 J**
PCB-155	E1668C	**0.00452 J**	**0.00339 J**	**0.00647 J**	**0.00594 J**	**0.000412 J**
PCB-156/157	E1668C	**0.367 J**	**0.31 J**	**0.286 J**	**0.268 J**	**0.00592 J**
PCB-158	E1668C	**1.424 J**	**0.921 J**	**1.292 J**	**1.249 J**	**0.0458 J**
PCB-159	E1668C	**0.197 J**	**0.227 J**	**0.235 J**	**0.225 J**	**0.0314 J**
PCB-160	E1668C	0.000605 UJ	0.00064 UJ	0.0000625 UJ	0.000141 UJ	0.0000217 UJ
PCB-161	E1668C	0.000419 UJ	0.000529 UJ	0.0000406 UJ	0.000091 UJ	0.0000136 UJ
PCB-162	E1668C	**0.0293 J**	**0.0289 J**	**0.0206 J**	**0.0199 J**	**0.00061 J**
PCB-164	E1668C	**1.279 J**	**0.802 J**	**1.06 J**	**1.031 J**	**0.0318 J**
PCB-165	E1668C	**0.0331 J**	**0.02 J**	**0.031 J**	**0.0172 J**	**0.00116 J**

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-10-BIOC-A E1668C	VP81-G-10/11-BST 8/20/2024 HOUS-VP81-JAR-SPME-10-BIOC-B E1668C	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-CTRL-A-241030 E1668C	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-CTRL-B-241030 E1668C	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-1-PAC-A-241030 E1668C
PCB-167		**0.258 J**	**0.244 J**	**0.197 J**	**0.189 J**	**0.00431 J**
PCB-169		**0.0311 J**	**0.0269 J**	0.000639 UJ	0.000822 UJ	0.000183 UJ
PCB-170		**3.037 J**	**3.066 J**	**3.363 J**	**3.054 J**	**0.388 J**
PCB-171/173		**1.456 J**	**1.161 J**	**1.952 J**	**1.823 J**	**0.241 J**
PCB-172		**0.587 J**	**0.609 J**	**0.606 J**	**0.572 J**	**0.0796 J**
PCB-174		**5.881 J**	**4.912 J**	**8.076 J**	**7.474 J**	**1.121 J**
PCB-175		**0.227 J**	**0.215 J**	**0.316 J**	**0.294 J**	**0.0432 J**
PCB-176		**1.494 J**	**1.173 J**	**3.286 J**	**3.25 J**	**0.605 J**
PCB-177		**3.101 J**	**2.444 J**	**4.38 J**	**4.071 J**	**0.579 J**
PCB-178		**1.428 J**	**1.227 J**	**1.978 J**	**2.071 J**	**0.328 J**
PCB-179		**5.13 J**	**4.075 J**	**11.91 J**	**12.026 J**	**2.081 J**
PCB-180/193		**6.947 J**	**7.604 J**	**6.951 J**	**6.589 J**	**0.821 J**
PCB-181		**0.0201 J**	**0.0159 J**	**0.0265 J**	**0.0244 J**	**0.0037 J**
PCB-182		**0.0178 J**	**0.02 J**	**0.0235 J**	**0.022 J**	**0.00354 J**
PCB-183		**2.77 J**	**2.545 J**	**3.688 J**	**3.4 J**	**0.457 J**
PCB-184		**0.0042 J**	0.000607 UJ	**0.00732 J**	**0.00744 J**	**0.00186 J**
PCB-185		**0.777 J**	**0.64 J**	**1.14 J**	**1.059 J**	**0.124 J**
PCB-186		0.000466 UJ	0.000674 UJ	0.000093 UJ	0.00022 UJ	**0.000312 J**
PCB-187		**5.929 J**	**5.475 J**	**8.076 J**	**7.496 J**	**1.102 J**
PCB-188		**0.0155 J**	**0.0132 J**	**0.0363 J**	**0.0361 J**	**0.00824 J**
PCB-189		**0.0483 J**	**0.112 J**	**0.0337 J**	**0.0284 J**	**0.00282 J**
PCB-190		**0.514 J**	**0.722 J**	**0.459 J**	**0.416 J**	**0.0449 J**
PCB-191		**0.103 J**	**0.163 J**	**0.0796 J**	**0.0756 J**	**0.00865 J**
PCB-192		0.000529 UJ	0.00189 UJ	0.000356 UJ	0.000254 UJ	0.000064 UJ
PCB-194		**0.494 J**	**1.284 J**	**0.429 J**	**0.382 J**	**0.158 J**
PCB-195		**0.336 J**	**0.535 J**	**0.411 J**	**0.362 J**	**0.171 J**
PCB-196		**0.447 J**	**0.936 J**	**0.528 J**	**0.46 J**	**0.254 J**
PCB-197		**0.0615 J**	**0.0704 J**	**0.0976 J**	**0.0863 J**	**0.0572 J**
PCB-198/199		**0.922 J**	**1.801 J**	**1.109 J**	**0.974 J**	**0.537 J**
PCB-200		**0.253 J**	**0.261 J**	**0.458 J**	**0.411 J**	**0.251 J**
PCB-201		**0.159 J**	**0.32 J**	**0.202 J**	**0.18 J**	**0.114 J**
PCB-202		**0.261 J**	**0.307 J**	**0.486 J**	**0.427 J**	**0.281 J**
PCB-203		**0.478 J**	**1.027 J**	**0.573 J**	**0.493 J**	**0.259 J**
PCB-204		0.000149 UJ	0.000325 UJ	**0.000503 J**	**0.000372 J**	**0.000323 J**
PCB-205		**0.0239 J**	**0.103 J**	**0.0157 J**	**0.0144 J**	**0.00541 J**
PCB-206		**0.058 J**	**0.306 J**	**0.0382 J**	**0.0345 J**	**0.0287 J**
PCB-207		**0.0165 J**	**0.0374 J**	**0.0149 J**	**0.0134 J**	**0.0122 J**
PCB-208		**0.0207 J**	**0.0477 J**	**0.0223 J**	**0.0195 J**	**0.0187 J**
PCB-209		**0.00246 J**	**0.00651 J**	**0.00154 J**	**0.00132 J**	**0.00149 J**
Total PCB Congener (U	Calculated	**300 J**	**260 J**	**400 J**	**380 J**	**16 J**

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Method	Location ID Sample Date Sample ID	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-1-PAC-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-2-PAC-A-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-2-PAC-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-5-PAC-A-241030
PCB Congeners (SPME) (ng/L)						
PCB-001	E1668C		**0.0304 J**	**0.0288 J**	0.0138 UJ	0.0167 UJ
PCB-002	E1668C		0.00307 UJ	0.0022 UJ	0.0044 UJ	0.00593 UJ
PCB-003	E1668C		0.00353 UJ	**0.01 J**	0.00506 UJ	0.0068 UJ
PCB-004	E1668C		0.00691 UJ	0.00939 UJ	0.00344 UJ	0.00493 UJ
PCB-005	E1668C		0.00157 UJ	0.000771 UJ	0.00398 UJ	0.00389 UJ
PCB-006	E1668C		0.00107 UJ	0.000527 UJ	0.00273 UJ	0.00266 UJ
PCB-007	E1668C		0.00124 UJ	0.000608 UJ	0.00317 UJ	0.00307 UJ
PCB-008	E1668C		0.00331 UJ	0.00265 UJ	0.00256 UJ	0.00249 UJ
PCB-009	E1668C		0.00114 UJ	0.000557 UJ	0.00289 UJ	0.00281 UJ
PCB-010	E1668C		0.00205 UJ	0.00159 UJ	0.0029 UJ	0.00416 UJ
PCB-011	E1668C		0.00369 UJ	0.00474 UJ	0.00314 UJ	0.00303 UJ
PCB-012/013	E1668C		0.000917 UJ	0.000449 UJ	0.00232 UJ	0.00226 UJ
PCB-014	E1668C		0.000799 UJ	0.000392 UJ	0.00202 UJ	0.00198 UJ
PCB-015	E1668C		0.00169 UJ	0.00259 UJ	0.0018 UJ	0.00175 UJ
PCB-016	E1668C		0.00218 UJ	0.00153 UJ	0.00239 UJ	0.00484 UJ
PCB-017	E1668C		0.00179 UJ	0.00126 UJ	0.00197 UJ	0.00399 UJ
PCB-018/030	E1668C		0.00356 UJ	0.00254 UJ	0.00137 UJ	0.00279 UJ
PCB-019	E1668C		**0.00355 J**	**0.00415 J**	0.0030 UJ	0.00607 UJ
PCB-020/028	E1668C		0.00144 UJ	0.00161 UJ	0.000896 UJ	0.00127 UJ
PCB-021/033	E1668C		0.000763 UJ	0.000487 UJ	0.00114 UJ	0.00162 UJ
PCB-022	E1668C		0.000559 UJ	0.000356 UJ	0.000835 UJ	0.00119 UJ
PCB-023	E1668C		0.000659 UJ	0.000421 UJ	0.000986 UJ	0.00141 UJ
PCB-024	E1668C		0.00105 UJ	0.000741 UJ	0.00116 UJ	0.00234 UJ
PCB-025	E1668C		0.000434 UJ	0.000278 UJ	0.000648 UJ	0.000925 UJ
PCB-026/029	E1668C		0.000532 UJ	0.000341 UJ	0.000797 UJ	0.00113 UJ
PCB-027	E1668C		0.000862 UJ	0.000606 UJ	0.000945 UJ	0.00191 UJ
PCB-031	E1668C		0.00116 UJ	0.00139 UJ	0.000648 UJ	0.000958 UJ
PCB-032	E1668C		0.00078 UJ	0.000548 UJ	0.000856 UJ	0.00174 UJ
PCB-034	E1668C		0.000542 UJ	0.000347 UJ	0.000811 UJ	0.00116 UJ
PCB-035	E1668C		0.000378 UJ	0.000242 UJ	0.000565 UJ	0.000804 UJ
PCB-036	E1668C		0.000291 UJ	0.000187 UJ	0.000436 UJ	0.000623 UJ
PCB-037	E1668C		**0.000667 J**	**0.000718 J**	0.000544 UJ	0.000775 UJ
PCB-038	E1668C		0.000406 UJ	0.00026 UJ	0.000607 UJ	0.000863 UJ
PCB-039	E1668C		0.000313 UJ	0.000201 UJ	0.000468 UJ	0.000668 UJ
PCB-040/071	E1668C		**0.00212 J**	**0.00112 J**	**0.00064 J**	0.000942 UJ
PCB-041	E1668C		0.000349 UJ	0.00037 UJ	0.000825 UJ	0.00149 UJ
PCB-042	E1668C		**0.00107 J**	0.000298 UJ	0.000669 UJ	0.00121 UJ
PCB-043	E1668C		0.000249 UJ	0.000265 UJ	0.000593 UJ	0.00107 UJ
PCB-044/047/065	E1668C		**0.0207 J**	**0.00927 J**	**0.00713 J**	**0.00374 J**
PCB-045	E1668C		**0.000822 J**	**0.00027 J**	0.00109 UJ	0.00197 UJ
PCB-046	E1668C		0.000482 UJ	0.000511 UJ	0.00114 UJ	0.00207 UJ
PCB-048	E1668C		**0.00018 J**	0.000257 UJ	0.000575 UJ	0.00104 UJ
PCB-049/069	E1668C		**0.00964 J**	**0.00428 J**	**0.00386 J**	**0.00197 J**
PCB-050/053	E1668C		**0.00541 J**	**0.00248 J**	**0.00129 J**	0.00134 UJ

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Method	Location ID Sample Date Sample ID	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-1-PAC-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-2-PAC-A-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-2-PAC-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-5-PAC-A-241030
PCB-051	E1668C		**0.00251 J**	**0.00115 J**	**0.00134 J**	0.00132 UJ
PCB-052	E1668C		**0.0217 J**	**0.0108 J**	**0.00948 J**	**0.00369 J**
PCB-054	E1668C		0.00149 UJ	0.00141 UJ	0.000692 UJ	0.000913 UJ
PCB-055	E1668C		0.00032 UJ	0.000182 UJ	0.000327 UJ	0.000475 UJ
PCB-056	E1668C		**0.000273 J**	0.000189 UJ	0.000339 UJ	0.000495 UJ
PCB-057	E1668C		0.000307 UJ	0.000174 UJ	0.000313 UJ	0.000454 UJ
PCB-058	E1668C		**0.00739 J**	**0.00215 J**	**0.00143 J**	0.000401 UJ
PCB-059/062/075	E1668C		**0.000547 J**	**0.000232 J**	0.000309 UJ	0.000557 UJ
PCB-060	E1668C		0.000388 UJ	0.000221 UJ	0.000399 UJ	0.000578 UJ
PCB-061/070/074/076	E1668C		**0.00608 J**	0.0032 UJ	0.00217 UJ	0.00103 UJ
PCB-063	E1668C		0.00033 UJ	0.000187 UJ	0.000337 UJ	0.000489 UJ
PCB-064	E1668C		0.00129 UJ	0.00105 UJ	0.000492 UJ	0.000557 UJ
PCB-066	E1668C		**0.00272 J**	**0.00144 J**	0.0010 UJ	0.000482 UJ
PCB-067	E1668C		0.000251 UJ	**0.0000955 J**	0.000257 UJ	0.000374 UJ
PCB-068	E1668C		0.000254 UJ	0.000144 UJ	0.00026 UJ	0.000376 UJ
PCB-072	E1668C		**0.000181 J**	0.000133 UJ	**0.000033 J**	0.000347 UJ
PCB-073	E1668C		**0.000464 J**	0.000105 UJ	0.000234 UJ	0.000423 UJ
PCB-077	E1668C		0.000509 UJ	0.000306 UJ	0.000154 UJ	0.000398 UJ
PCB-078	E1668C		0.000211 UJ	0.00012 UJ	0.000215 UJ	0.000314 UJ
PCB-079	E1668C		**0.000468 J**	**0.000204 J**	**0.000168 J**	0.000228 UJ
PCB-080	E1668C		0.000153 UJ	0.0000872 UJ	0.000156 UJ	0.000227 UJ
PCB-081	E1668C		0.00022 UJ	0.000125 UJ	0.000224 UJ	0.000325 UJ
PCB-082	E1668C		**0.00862 J**	**0.00251 J**	**0.00234 J**	**0.000674 J**
PCB-083	E1668C		**0.00763 J**	**0.00151 J**	**0.00201 J**	**0.000561 J**
PCB-084	E1668C		**0.0513 J**	**0.0145 J**	**0.0115 J**	**0.00351 J**
PCB-085/116	E1668C		**0.018 J**	**0.00595 J**	**0.00397 J**	**0.00152 J**
PCB-086/087/097/109/	E1668C		**0.0802 J**	**0.0251 J**	**0.0186 J**	**0.00685 J**
PCB-088	E1668C		0.000248 UJ	0.000385 UJ	0.000455 UJ	0.000433 UJ
PCB-089	E1668C		**0.0011 J**	0.000321 UJ	0.000383 UJ	0.000361 UJ
PCB-090/101/113	E1668C		**0.202 J**	**0.0621 J**	**0.0437 J**	**0.0143 J**
PCB-091	E1668C		**0.052 J**	**0.0156 J**	**0.0113 J**	**0.00315 J**
PCB-092	E1668C		**0.06 J**	**0.0181 J**	**0.0117 J**	**0.0036 J**
PCB-093/100	E1668C		**0.0179 J**	**0.00535 J**	**0.00374 J**	**0.000757 J**
PCB-094	E1668C		**0.00605 J**	**0.00167 J**	**0.000988 J**	0.00037 UJ
PCB-095	E1668C		**0.321 J**	**0.094 J**	**0.0704 J**	**0.0194 J**
PCB-096	E1668C		**0.0115 J**	**0.00323 J**	**0.00234 J**	0.000471 UJ
PCB-098	E1668C		0.00018 UJ	0.000279 UJ	**0.000297 J**	0.000313 UJ
PCB-099	E1668C		**0.061 J**	**0.0191 J**	**0.013 J**	**0.00444 J**
PCB-102	E1668C		**0.00692 J**	**0.00209 J**	**0.00108 J**	0.000255 UJ
PCB-103	E1668C		**0.00955 J**	**0.00285 J**	**0.0021 J**	**0.000483 J**
PCB-104	E1668C		**0.0019 J**	0.000933 UJ	0.000406 UJ	0.000349 UJ
PCB-105	E1668C		**0.00856 J**	**0.00264 J**	**0.00158 J**	0.00055 UJ
PCB-106	E1668C		0.0000451 UJ	0.000071 UJ	0.0000832 UJ	0.0000789 UJ
PCB-107	E1668C		**0.00124 J**	**0.000518 J**	**0.000372 J**	0.000065 UJ
PCB-108/124	E1668C		**0.00137 J**	**0.000453 J**	**0.000317 J**	**0.000169 J**

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Method	Location ID Sample Date Sample ID	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-1-PAC-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-2-PAC-A-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-2-PAC-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-5-PAC-A-241030
PCB-110	E1668C		**0.0882 J**	**0.028 J**	**0.0204 J**	**0.00788 J**
PCB-111	E1668C		**0.000102 J**	0.0000581 UJ	0.0000677 UJ	0.0000644 UJ
PCB-112	E1668C		0.0000596 UJ	0.0000931 UJ	0.00011 UJ	0.000104 UJ
PCB-114	E1668C		**0.00107 J**	**0.000235 J**	**0.000175 J**	0.0000794 UJ
PCB-115	E1668C		0.0000545 UJ	0.0000853 UJ	0.00010 UJ	0.0000952 UJ
PCB-117	E1668C		**0.00134 J**	**0.00047 J**	**0.000284 J**	**0.0000908 J**
PCB-118	E1668C		**0.0116 J**	**0.00417 J**	**0.00316 J**	**0.00159 J**
PCB-120	E1668C		**0.000678 J**	**0.000198 J**	**0.000125 J**	0.0000492 UJ
PCB-121	E1668C		**0.000169 J**	0.0000678 UJ	0.0000794 UJ	0.0000754 UJ
PCB-122	E1668C		**0.00048 J**	**0.000187 J**	**0.000138 J**	0.0000971 UJ
PCB-123	E1668C		**0.000723 J**	**0.000209 J**	**0.000134 J**	0.0000651 UJ
PCB-126	E1668C		0.000136 UJ	0.0000536 UJ	0.0000752 UJ	0.0000664 UJ
PCB-127	E1668C		**0.000249 J**	0.0000374 UJ	**0.0000612 J**	0.0000432 UJ
PCB-128/166	E1668C		**0.101 J**	**0.0217 J**	**0.0155 J**	**0.00308 J**
PCB-129/138/163	E1668C		**0.637 J**	**0.189 J**	**0.11 J**	**0.0305 J**
PCB-130	E1668C		**0.0309 J**	**0.00917 J**	**0.0055 J**	**0.00148 J**
PCB-131	E1668C		**0.00812 J**	**0.00261 J**	**0.00154 J**	**0.000296 J**
PCB-132	E1668C		**0.34 J**	**0.0995 J**	**0.0557 J**	**0.0126 J**
PCB-133	E1668C		**0.0125 J**	**0.0036 J**	**0.00208 J**	**0.00039 J**
PCB-134	E1668C		**0.0691 J**	**0.0201 J**	**0.0113 J**	**0.00232 J**
PCB-135/151	E1668C		**0.632 J**	**0.175 J**	**0.0929 J**	**0.019 J**
PCB-136	E1668C		**0.3 J**	**0.0693 J**	**0.0382 J**	**0.00736 J**
PCB-137	E1668C		**0.0115 J**	**0.00325 J**	**0.0019 J**	**0.000339 J**
PCB-139/140	E1668C		**0.011 J**	**0.00332 J**	**0.00194 J**	**0.000353 J**
PCB-141	E1668C		**0.166 J**	**0.0477 J**	**0.0276 J**	**0.00683 J**
PCB-142	E1668C		0.0000439 UJ	0.0000567 UJ	0.0000928 UJ	0.00011 UJ
PCB-143	E1668C		0.0000336 UJ	0.0000435 UJ	0.0000712 UJ	0.0000846 UJ
PCB-144	E1668C		**0.0631 J**	**0.0189 J**	**0.0101 J**	**0.00219 J**
PCB-145	E1668C		**0.000722 J**	**0.00022 J**	0.000122 UJ	0.000143 UJ
PCB-146	E1668C		**0.0922 J**	**0.0269 J**	**0.015 J**	**0.00372 J**
PCB-147/149	E1668C		**1.103 J**	**0.313 J**	**0.167 J**	**0.0357 J**
PCB-148	E1668C		**0.00403 J**	**0.00115 J**	**0.000565 J**	**0.0000888 J**
PCB-150	E1668C		**0.0195 J**	**0.00449 J**	**0.0028 J**	0.000133 UJ
PCB-152	E1668C		**0.0105 J**	**0.00248 J**	**0.00142 J**	**0.000314 J**
PCB-153/168	E1668C		**0.479 J**	**0.14 J**	**0.0797 J**	**0.0202 J**
PCB-154	E1668C		**0.0182 J**	**0.00565 J**	**0.00306 J**	**0.000588 J**
PCB-155	E1668C		**0.000395 J**	0.000129 UJ	0.0000392 UJ	0.0000336 UJ
PCB-156/157	E1668C		**0.00544 J**	**0.00187 J**	**0.00116 J**	**0.00038 J**
PCB-158	E1668C		**0.0401 J**	**0.0103 J**	**0.00671 J**	**0.00164 J**
PCB-159	E1668C		**0.0293 J**	**0.00569 J**	**0.00423 J**	**0.000674 J**
PCB-160	E1668C		0.0000138 UJ	0.0000181 UJ	0.0000292 UJ	0.0000348 UJ
PCB-161	E1668C		0.00000864 UJ	0.0000114 UJ	0.0000183 UJ	0.0000218 UJ
PCB-162	E1668C		**0.000504 J**	**0.000182 J**	**0.0000965 J**	**0.0000257 J**
PCB-164	E1668C		**0.0273 J**	**0.00777 J**	**0.00452 J**	**0.00115 J**
PCB-165	E1668C		**0.00113 J**	**0.000253 J**	**0.000156 J**	0.0000269 UJ

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Method	Location ID Sample Date Sample ID	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-1-PAC-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-2-PAC-A-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-2-PAC-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-5-PAC-A-241030
PCB-167	E1668C		**0.00396 J**	**0.0013 J**	**0.000789 J**	**0.000263 J**
PCB-169	E1668C		0.000147 UJ	0.0000652 UJ	0.0000823 UJ	0.000056 UJ
PCB-170	E1668C		**0.358 J**	**0.0748 J**	**0.0576 J**	**0.0108 J**
PCB-171/173	E1668C		**0.233 J**	**0.0451 J**	**0.0335 J**	**0.00605 J**
PCB-172	E1668C		**0.0743 J**	**0.0153 J**	**0.0114 J**	**0.00197 J**
PCB-174	E1668C		**1.078 J**	**0.192 J**	**0.139 J**	**0.0225 J**
PCB-175	E1668C		**0.0413 J**	**0.00744 J**	**0.00562 J**	**0.000889 J**
PCB-176	E1668C		**0.623 J**	**0.0877 J**	**0.0741 J**	**0.0108 J**
PCB-177	E1668C		**0.558 J**	**0.102 J**	**0.0775 J**	**0.0127 J**
PCB-178	E1668C		**0.34 J**	**0.0522 J**	**0.0407 J**	**0.00634 J**
PCB-179	E1668C		**2.05 J**	**0.304 J**	**0.246 J**	**0.0334 J**
PCB-180/193	E1668C		**0.755 J**	**0.159 J**	**0.116 J**	**0.0211 J**
PCB-181	E1668C		**0.00351 J**	**0.000702 J**	**0.000552 J**	0.0000749 UJ
PCB-182	E1668C		**0.00364 J**	**0.0007 J**	**0.000575 J**	**0.0000815 J**
PCB-183	E1668C		**0.434 J**	**0.0794 J**	**0.0603 J**	**0.00971 J**
PCB-184	E1668C		**0.00173 J**	**0.000258 J**	**0.000211 J**	0.0000638 UJ
PCB-185	E1668C		**0.13 J**	**0.0224 J**	**0.0163 J**	**0.00299 J**
PCB-186	E1668C		**0.000428 J**	0.0000442 UJ	0.0000686 UJ	0.0000803 UJ
PCB-187	E1668C		**1.053 J**	**0.185 J**	**0.136 J**	**0.0213 J**
PCB-188	E1668C		**0.00831 J**	**0.00117 J**	**0.00111 J**	0.000117 UJ
PCB-189	E1668C		**0.00265 J**	**0.000732 J**	**0.000492 J**	**0.000123 J**
PCB-190	E1668C		**0.0415 J**	**0.00925 J**	**0.00697 J**	**0.00138 J**
PCB-191	E1668C		**0.008 J**	**0.0019 J**	**0.00132 J**	**0.000274 J**
PCB-192	E1668C		0.0000503 UJ	0.0000315 UJ	0.0000267 UJ	0.000025 UJ
PCB-194	E1668C		**0.153 J**	**0.0281 J**	**0.0323 J**	**0.00453 J**
PCB-195	E1668C		**0.165 J**	**0.0262 J**	**0.0333 J**	**0.00425 J**
PCB-196	E1668C		**0.236 J**	**0.0381 J**	**0.0483 J**	**0.00593 J**
PCB-197	E1668C		**0.055 J**	**0.00874 J**	**0.0118 J**	**0.00129 J**
PCB-198/199	E1668C		**0.493 J**	**0.0811 J**	**0.1 J**	**0.0114 J**
PCB-200	E1668C		**0.231 J**	**0.0335 J**	**0.0462 J**	**0.00474 J**
PCB-201	E1668C		**0.108 J**	**0.0163 J**	**0.0215 J**	**0.00237 J**
PCB-202	E1668C		**0.268 J**	**0.0378 J**	**0.0506 J**	**0.00512 J**
PCB-203	E1668C		**0.238 J**	**0.0378 J**	**0.0477 J**	**0.00581 J**
PCB-204	E1668C		**0.000298 J**	**0.0000486 J**	**0.0000508 J**	0.0000185 UJ
PCB-205	E1668C		**0.00521 J**	**0.00102 J**	**0.00111 J**	**0.000161 J**
PCB-206	E1668C		**0.0284 J**	**0.00704 J**	**0.00944 J**	**0.00136 J**
PCB-207	E1668C		**0.0123 J**	**0.00295 J**	**0.00427 J**	**0.000579 J**
PCB-208	E1668C		**0.0187 J**	**0.00442 J**	**0.00643 J**	**0.000808 J**
PCB-209	E1668C		**0.00145 J**	**0.000536 J**	**0.000764 J**	**0.000205 J**
Total PCB Congener (U	Calculated		**15 J**	**3.2 J**	**2.4 J**	**0.44 J**

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Method	Location ID Sample Date Sample ID VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-5-PAC-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-2-GAC-A-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-2-GAC-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-5-GAC-A-241030
PCB Congeners (SPME) (ng/L)					
PCB-001	E1668C	**0.0179 J**	0.032 UJ	0.0299 UJ	0.00845 UJ
PCB-002	E1668C	0.00224 UJ	0.0107 UJ	0.0103 UJ	0.00252 UJ
PCB-003	E1668C	**0.0041 J**	0.012 UJ	0.0115 UJ	0.00289 UJ
PCB-004	E1668C	0.00414 UJ	0.00815 UJ	0.00769 UJ	0.00284 UJ
PCB-005	E1668C	0.00238 UJ	0.00668 UJ	0.00754 UJ	0.00074 UJ
PCB-006	E1668C	0.00163 UJ	0.00464 UJ	0.00524 UJ	0.000505 UJ
PCB-007	E1668C	0.00188 UJ	0.00533 UJ	0.0060 UJ	0.000587 UJ
PCB-008	E1668C	0.00171 UJ	0.00428 UJ	0.00402 UJ	0.00128 UJ
PCB-009	E1668C	0.00172 UJ	0.00491 UJ	0.00553 UJ	0.000538 UJ
PCB-010	E1668C	0.00218 UJ	0.00697 UJ	0.00662 UJ	0.00259 UJ
PCB-011	E1668C	0.00297 UJ	0.00379 UJ	0.00572 UJ	0.00396 UJ
PCB-012/013	E1668C	0.00139 UJ	0.00385 UJ	0.00434 UJ	0.000431 UJ
PCB-014	E1668C	0.00121 UJ	0.00349 UJ	0.00394 UJ	0.000376 UJ
PCB-015	E1668C	0.00124 UJ	0.00115 UJ	0.00311 UJ	0.00106 UJ
PCB-016	E1668C	0.00185 UJ	0.00541 UJ	0.00618 UJ	0.00139 UJ
PCB-017	E1668C	0.00152 UJ	0.00436 UJ	0.00497 UJ	0.00115 UJ
PCB-018/030	E1668C	0.00106 UJ	0.00406 UJ	0.00353 UJ	0.00189 UJ
PCB-019	E1668C	**0.00212 J**	0.00677 UJ	0.0077 UJ	0.00175 UJ
PCB-020/028	E1668C	0.000781 UJ	0.00266 UJ	0.00266 UJ	0.000831 UJ
PCB-021/033	E1668C	0.000781 UJ	0.00335 UJ	0.00333 UJ	0.000704 UJ
PCB-022	E1668C	0.000572 UJ	0.00243 UJ	0.00243 UJ	0.000514 UJ
PCB-023	E1668C	0.000674 UJ	0.00297 UJ	0.00296 UJ	0.000607 UJ
PCB-024	E1668C	0.000896 UJ	0.00254 UJ	0.0029 UJ	0.000674 UJ
PCB-025	E1668C	0.000444 UJ	0.00195 UJ	0.00195 UJ	0.000399 UJ
PCB-026/029	E1668C	0.000546 UJ	0.00238 UJ	0.00238 UJ	**0.000403 J**
PCB-027	E1668C	0.000732 UJ	0.0021 UJ	0.0024 UJ	0.000551 UJ
PCB-031	E1668C	0.000439 UJ	0.00203 UJ	0.00203 UJ	0.000569 UJ
PCB-032	E1668C	0.000662 UJ	0.00193 UJ	0.0022 UJ	0.000499 UJ
PCB-034	E1668C	0.000555 UJ	0.00244 UJ	0.00244 UJ	0.000499 UJ
PCB-035	E1668C	0.000388 UJ	0.00164 UJ	0.00163 UJ	0.000348 UJ
PCB-036	E1668C	0.000299 UJ	0.00127 UJ	0.00127 UJ	0.000269 UJ
PCB-037	E1668C	0.000374 UJ	0.00147 UJ	0.00147 UJ	0.000335 UJ
PCB-038	E1668C	0.000416 UJ	0.00175 UJ	0.00175 UJ	0.000374 UJ
PCB-039	E1668C	0.000322 UJ	0.00136 UJ	0.00136 UJ	0.000289 UJ
PCB-040/071	E1668C	**0.000174 J**	**0.00531 J**	**0.00192 J**	**0.00119 J**
PCB-041	E1668C	0.000433 UJ	0.00181 UJ	0.00223 UJ	0.000384 UJ
PCB-042	E1668C	0.000349 UJ	**0.00297 J**	0.00176 UJ	**0.000504 J**
PCB-043	E1668C	0.00031 UJ	0.00127 UJ	0.00156 UJ	0.000275 UJ
PCB-044/047/065	E1668C	0.00277 UJ	**0.0573 J**	**0.0143 J**	**0.0089 J**
PCB-045	E1668C	0.00057 UJ	**0.0023 J**	0.00291 UJ	**0.000395 J**
PCB-046	E1668C	0.000598 UJ	0.00245 UJ	0.00301 UJ	0.000531 UJ
PCB-048	E1668C	0.00030 UJ	0.00124 UJ	0.00152 UJ	0.000266 UJ
PCB-049/069	E1668C	**0.00112 J**	**0.0356 J**	**0.00811 J**	**0.00397 J**
PCB-050/053	E1668C	0.000387 UJ	**0.0191 J**	**0.00533 J**	**0.00237 J**

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-5-PAC-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-2-GAC-A-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-2-GAC-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-5-GAC-A-241030
PCB-051	E1668C	0.000384 UJ	**0.00969 J**	0.00193 UJ	**0.00135 J**
PCB-052	E1668C	0.00221 UJ	**0.0782 J**	**0.019 J**	**0.00959 J**
PCB-054	E1668C	0.000467 UJ	0.00323 UJ	0.00183 UJ	0.000405 UJ
PCB-055	E1668C	0.000128 UJ	0.00197 UJ	0.00116 UJ	0.000263 UJ
PCB-056	E1668C	0.000133 UJ	0.00204 UJ	0.0012 UJ	0.000273 UJ
PCB-057	E1668C	0.000123 UJ	0.0019 UJ	0.00112 UJ	0.000251 UJ
PCB-058	E1668C	0.000108 UJ	**0.101 J**	**0.0148 J**	0.000223 UJ
PCB-059/062/075	E1668C	0.000162 UJ	**0.00299 J**	**0.0013 J**	**0.000262 J**
PCB-060	E1668C	0.000155 UJ	0.00241 UJ	0.00142 UJ	0.000319 UJ
PCB-061/070/074/076	E1668C	0.00083 UJ	**0.0388 J**	**0.00759 J**	0.00281 UJ
PCB-063	E1668C	0.000132 UJ	0.00201 UJ	0.00119 UJ	0.000271 UJ
PCB-064	E1668C	0.00024 UJ	**0.0032 J**	0.000811 UJ	0.000655 UJ
PCB-066	E1668C	0.000409 UJ	**0.00362 J**	**0.00338 J**	**0.00134 J**
PCB-067	E1668C	0.000101 UJ	**0.00351 J**	0.000908 UJ	0.000207 UJ
PCB-068	E1668C	0.000101 UJ	**0.00252 J**	0.000924 UJ	0.000208 UJ
PCB-072	E1668C	0.0000937 UJ	0.00147 UJ	0.000868 UJ	0.000192 UJ
PCB-073	E1668C	0.000122 UJ	**0.00261 J**	**0.00061 J**	**0.000205 J**
PCB-077	E1668C	0.000225 UJ	0.00158 UJ	0.00103 UJ	0.000196 UJ
PCB-078	E1668C	0.0000841 UJ	0.00136 UJ	0.000801 UJ	0.000173 UJ
PCB-079	E1668C	0.0000611 UJ	**0.00588 J**	**0.00109 J**	**0.00022 J**
PCB-080	E1668C	0.0000609 UJ	0.000956 UJ	0.000563 UJ	0.000125 UJ
PCB-081	E1668C	0.0000876 UJ	0.00133 UJ	0.000784 UJ	0.00018 UJ
PCB-082	E1668C	**0.000589 J**	**0.0752 J**	**0.0158 J**	**0.00385 J**
PCB-083	E1668C	**0.000326 J**	**0.0564 J**	**0.0232 J**	**0.00319 J**
PCB-084	E1668C	**0.00251 J**	**0.644 J**	**0.098 J**	**0.0197 J**
PCB-085/116	E1668C	0.00122 UJ	**0.172 J**	**0.0265 J**	**0.00668 J**
PCB-086/087/097/109/	E1668C	**0.00491 J**	**0.834 J**	**0.125 J**	**0.0297 J**
PCB-088	E1668C	0.000158 UJ	0.0352 UJ	0.00749 UJ	0.000119 UJ
PCB-089	E1668C	0.000132 UJ	0.031 UJ	0.00659 UJ	**0.000338 J**
PCB-090/101/113	E1668C	**0.0106 J**	**2.432 J**	**0.354 J**	**0.0751 J**
PCB-091	E1668C	**0.00219 J**	**0.775 J**	**0.125 J**	**0.0204 J**
PCB-092	E1668C	**0.00295 J**	**0.827 J**	**0.129 J**	**0.0238 J**
PCB-093/100	E1668C	**0.000649 J**	**0.276 J**	**0.0534 J**	**0.0076 J**
PCB-094	E1668C	**0.000194 J**	**0.0982 J**	**0.019 J**	**0.00245 J**
PCB-095	E1668C	**0.0154 J**	**4.478 J**	**0.628 J**	**0.117 J**
PCB-096	E1668C	**0.000407 J**	**0.195 J**	**0.0353 J**	**0.00462 J**
PCB-098	E1668C	0.000115 UJ	0.0245 UJ	0.00521 UJ	**0.000401 J**
PCB-099	E1668C	**0.0035 J**	**0.766 J**	**0.164 J**	**0.0273 J**
PCB-102	E1668C	**0.000263 J**	**0.105 J**	**0.0191 J**	**0.00236 J**
PCB-103	E1668C	**0.000381 J**	**0.136 J**	**0.023 J**	**0.00358 J**
PCB-104	E1668C	0.000204 UJ	**0.0294 J**	**0.00618 J**	0.000668 UJ
PCB-105	E1668C	0.000455 UJ	**0.0958 J**	**0.0398 J**	**0.00568 J**
PCB-106	E1668C	0.0000289 UJ	0.00674 UJ	0.00143 UJ	0.0000216 UJ
PCB-107	E1668C	**0.000104 J**	**0.00789 J**	**0.00207 J**	**0.000839 J**
PCB-108/124	E1668C	0.0000261 UJ	**0.00917 J**	**0.00186 J**	**0.00055 J**

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-5-PAC-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-2-GAC-A-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-2-GAC-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-5-GAC-A-241030
PCB-110	E1668C	**0.00582 J**	**0.84 J**	**0.122 J**	**0.0327 J**
PCB-111	E1668C	0.0000237 UJ	0.00552 UJ	0.00117 UJ	**0.0000604 J**
PCB-112	E1668C	0.0000383 UJ	0.00918 UJ	0.00195 UJ	0.0000286 UJ
PCB-114	E1668C	0.0000283 UJ	**0.013 J**	**0.00746 J**	**0.00104 J**
PCB-115	E1668C	0.0000349 UJ	0.00875 UJ	0.00186 UJ	0.0000262 UJ
PCB-117	E1668C	**0.000119 J**	**0.0132 J**	**0.00199 J**	**0.000473 J**
PCB-118	E1668C	**0.00104 J**	**0.0616 J**	**0.0132 J**	**0.00449 J**
PCB-120	E1668C	**0.0000444 J**	**0.00797 J**	**0.00392 J**	**0.000569 J**
PCB-121	E1668C	0.0000276 UJ	0.00647 UJ	0.00138 UJ	**0.000078 J**
PCB-122	E1668C	0.0000347 UJ	0.00821 UJ	0.0018 UJ	0.0000269 UJ
PCB-123	E1668C	**0.0000385 J**	**0.00528 J**	**0.00287 J**	**0.000366 J**
PCB-126	E1668C	0.000024 UJ	0.00084 UJ	0.000687 UJ	0.00016 UJ
PCB-127	E1668C	0.0000152 UJ	0.00319 UJ	**0.0019 J**	**0.000206 J**
PCB-128/166	E1668C	**0.00256 J**	**0.767 J**	**0.481 J**	**0.143 J**
PCB-129/138/163	E1668C	**0.0246 J**	**9.937 J**	**3.43 J**	**0.439 J**
PCB-130	E1668C	**0.00118 J**	**0.475 J**	**0.186 J**	**0.0246 J**
PCB-131	E1668C	**0.000248 J**	**0.148 J**	**0.0589 J**	**0.00676 J**
PCB-132	E1668C	**0.0116 J**	**6.135 J**	**2.41 J**	**0.281 J**
PCB-133	E1668C	**0.000352 J**	**0.192 J**	**0.0862 J**	**0.012 J**
PCB-134	E1668C	**0.00233 J**	**1.192 J**	**0.489 J**	**0.0569 J**
PCB-135/151	E1668C	**0.018 J**	**11.454 J**	**4.587 J**	**0.507 J**
PCB-136	E1668C	**0.00754 J**	**5.06 J**	**2.533 J**	**0.26 J**
PCB-137	E1668C	**0.000372 J**	**0.164 J**	**0.0663 J**	**0.0094 J**
PCB-139/140	E1668C	**0.000345 J**	**0.182 J**	**0.0835 J**	**0.0106 J**
PCB-141	E1668C	**0.00596 J**	**2.603 J**	**0.974 J**	**0.125 J**
PCB-142	E1668C	0.0000402 UJ	0.000195 UJ	0.000302 UJ	0.0000326 UJ
PCB-143	E1668C	0.0000309 UJ	0.000155 UJ	0.000242 UJ	0.0000249 UJ
PCB-144	E1668C	**0.00205 J**	**1.137 J**	**0.433 J**	**0.0484 J**
PCB-145	E1668C	0.0000543 UJ	**0.0175 J**	**0.0106 J**	**0.00096 J**
PCB-146	E1668C	**0.00321 J**	**1.421 J**	**0.572 J**	**0.0752 J**
PCB-147/149	E1668C	**0.0336 J**	**19.963 J**	**8.242 J**	**0.925 J**
PCB-148	E1668C	**0.000102 J**	**0.0629 J**	**0.0317 J**	**0.00423 J**
PCB-150	E1668C	**0.000348 J**	**0.266 J**	**0.161 J**	**0.0234 J**
PCB-152	E1668C	**0.000218 J**	**0.157 J**	**0.0923 J**	**0.0112 J**
PCB-153/168	E1668C	**0.0174 J**	**7.825 J**	**2.9 J**	**0.362 J**
PCB-154	E1668C	**0.000608 J**	**0.318 J**	**0.144 J**	**0.0195 J**
PCB-155	E1668C	0.0000209 UJ	**0.00421 J**	**0.00292 J**	**0.000598 J**
PCB-156/157	E1668C	**0.000328 J**	**0.0587 J**	**0.0184 J**	**0.00321 J**
PCB-158	E1668C	**0.00133 J**	**0.438 J**	**0.181 J**	**0.044 J**
PCB-159	E1668C	**0.000618 J**	**0.157 J**	**0.137 J**	**0.0503 J**
PCB-160	E1668C	0.0000127 UJ	0.000060 UJ	0.0000933 UJ	0.0000103 UJ
PCB-161	E1668C	0.00000797 UJ	0.0000381 UJ	0.0000591 UJ	0.00000642 UJ
PCB-162	E1668C	0.0000181 UJ	**0.00599 J**	**0.00246 J**	**0.000428 J**
PCB-164	E1668C	**0.000978 J**	**0.402 J**	**0.149 J**	**0.0204 J**
PCB-165	E1668C	**0.0000509 J**	0.0000462 UJ	0.0000721 UJ	0.00000789 UJ

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-5-PAC-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-2-GAC-A-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-2-GAC-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-5-GAC-A-241030
PCB-167	E1668C	**0.000203 J**	**0.0446 J**	**0.0148 J**	**0.00268 J**
PCB-169	E1668C	0.0000295 UJ	0.00053 UJ	0.000552 UJ	0.000196 UJ
PCB-170	E1668C	**0.00968 J**	**2.179 J**	**1.618 J**	**0.554 J**
PCB-171/173	E1668C	**0.0054 J**	**1.405 J**	**1.166 J**	**0.429 J**
PCB-172	E1668C	**0.0018 J**	**0.413 J**	**0.326 J**	**0.118 J**
PCB-174	E1668C	**0.0199 J**	**5.703 J**	**4.981 J**	**1.896 J**
PCB-175	E1668C	**0.000836 J**	**0.221 J**	**0.188 J**	**0.0734 J**
PCB-176	E1668C	**0.00975 J**	**2.74 J**	**2.386 J**	**1.144 J**
PCB-177	E1668C	**0.0114 J**	**3.166 J**	**2.652 J**	**1 J**
PCB-178	E1668C	**0.00547 J**	**1.549 J**	**1.3 J**	**0.532 J**
PCB-179	E1668C	**0.031 J**	**9.846 J**	**8.558 J**	**3.862 J**
PCB-180/193	E1668C	**0.0191 J**	**4.631 J**	**3.573 J**	**1.209 J**
PCB-181	E1668C	**0.0000665 J**	**0.0191 J**	**0.0166 J**	**0.00634 J**
PCB-182	E1668C	**0.0000775 J**	**0.0166 J**	**0.0158 J**	**0.00671 J**
PCB-183	E1668C	**0.00879 J**	**2.516 J**	**2.173 J**	**0.792 J**
PCB-184	E1668C	0.000022 UJ	**0.00614 J**	**0.0055 J**	**0.00311 J**
PCB-185	E1668C	**0.00273 J**	**0.765 J**	**0.639 J**	**0.229 J**
PCB-186	E1668C	0.0000277 UJ	0.0000856 UJ	**0.00122 J**	**0.000741 J**
PCB-187	E1668C	**0.0195 J**	**5.639 J**	**4.892 J**	**1.84 J**
PCB-188	E1668C	0.000165 UJ	**0.0301 J**	**0.0263 J**	**0.0147 J**
PCB-189	E1668C	**0.0000988 J**	**0.0168 J**	**0.0112 J**	**0.00326 J**
PCB-190	E1668C	**0.00123 J**	**0.269 J**	**0.19 J**	**0.0564 J**
PCB-191	E1668C	**0.000237 J**	**0.0504 J**	**0.037 J**	**0.0118 J**
PCB-192	E1668C	0.00000997 UJ	0.000217 UJ	0.000242 UJ	0.0000707 UJ
PCB-194	E1668C	**0.0041 J**	**0.332 J**	**0.296 J**	**0.195 J**
PCB-195	E1668C	**0.00397 J**	**0.312 J**	**0.277 J**	**0.212 J**
PCB-196	E1668C	**0.00536 J**	**0.407 J**	**0.393 J**	**0.294 J**
PCB-197	E1668C	**0.00124 J**	**0.0851 J**	**0.0802 J**	**0.0684 J**
PCB-198/199	E1668C	**0.0104 J**	**0.861 J**	**0.798 J**	**0.619 J**
PCB-200	E1668C	**0.00441 J**	**0.378 J**	**0.359 J**	**0.292 J**
PCB-201	E1668C	**0.00212 J**	**0.179 J**	**0.171 J**	**0.137 J**
PCB-202	E1668C	**0.00455 J**	**0.421 J**	**0.414 J**	**0.333 J**
PCB-203	E1668C	**0.00535 J**	**0.437 J**	**0.425 J**	**0.304 J**
PCB-204	E1668C	0.00000573 UJ	**0.000451 J**	**0.000402 J**	**0.000369 J**
PCB-205	E1668C	**0.00015 J**	**0.0122 J**	**0.0106 J**	**0.00655 J**
PCB-206	E1668C	**0.00127 J**	**0.0341 J**	**0.0316 J**	**0.0291 J**
PCB-207	E1668C	**0.000523 J**	**0.0136 J**	**0.0125 J**	**0.0119 J**
PCB-208	E1668C	**0.000752 J**	**0.0203 J**	**0.0185 J**	**0.0181 J**
PCB-209	E1668C	**0.000211 J**	**0.00143 J**	**0.00133 J**	**0.00157 J**
Total PCB Congener (U	Calculated	**0.41 J**	**130 J**	**69 J**	**20 J**

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Method	Location ID Sample Date Sample ID	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-5-GAC-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-5-BIOC-A-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-5-BIOC-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-10-BIOC-A-241030
PCB Congeners (SPME) (ng/L)						
PCB-001	E1668C		0.0106 UJ	0.0829 UJ	0.0355 UJ	0.0103 UJ
PCB-002	E1668C		0.00283 UJ	0.0286 UJ	0.0125 UJ	0.00311 UJ
PCB-003	E1668C		**0.00498 J**	0.0318 UJ	0.014 UJ	0.00353 UJ
PCB-004	E1668C		0.00597 UJ	0.0368 UJ	0.0205 UJ	0.00276 UJ
PCB-005	E1668C		0.00222 UJ	0.0154 UJ	0.0106 UJ	0.00289 UJ
PCB-006	E1668C		0.00155 UJ	0.0106 UJ	0.00731 UJ	0.00201 UJ
PCB-007	E1668C		0.00177 UJ	0.0123 UJ	0.0084 UJ	0.0023 UJ
PCB-008	E1668C		0.0020 UJ	0.00994 UJ	0.00677 UJ	0.00187 UJ
PCB-009	E1668C		0.00162 UJ	0.0112 UJ	0.00773 UJ	0.00211 UJ
PCB-010	E1668C		0.00319 UJ	0.0316 UJ	0.0177 UJ	0.00239 UJ
PCB-011	E1668C		0.0133 UJ	0.00688 UJ	0.00484 UJ	0.00289 UJ
PCB-012/013	E1668C		0.00128 UJ	0.0085 UJ	0.00607 UJ	0.00166 UJ
PCB-014	E1668C		0.00113 UJ	0.0076 UJ	0.00551 UJ	0.00146 UJ
PCB-015	E1668C		0.00144 UJ	0.00602 UJ	0.00435 UJ	0.00126 UJ
PCB-016	E1668C		0.00225 UJ	0.0167 UJ	0.00804 UJ	0.00258 UJ
PCB-017	E1668C		0.00179 UJ	0.0136 UJ	0.00647 UJ	0.00206 UJ
PCB-018/030	E1668C		0.00125 UJ	0.00967 UJ	0.0046 UJ	0.00143 UJ
PCB-019	E1668C		**0.00248 J**	0.0212 UJ	0.00999 UJ	0.00307 UJ
PCB-020/028	E1668C		0.00119 UJ	0.0057 UJ	0.0033 UJ	0.000998 UJ
PCB-021/033	E1668C		0.00113 UJ	0.00725 UJ	0.00414 UJ	0.00126 UJ
PCB-022	E1668C		0.000834 UJ	0.00537 UJ	0.00302 UJ	0.000933 UJ
PCB-023	E1668C		0.000986 UJ	0.00627 UJ	0.00367 UJ	0.0011 UJ
PCB-024	E1668C		0.00106 UJ	0.00795 UJ	0.00377 UJ	0.00121 UJ
PCB-025	E1668C		0.00065 UJ	0.00416 UJ	0.00241 UJ	0.000726 UJ
PCB-026/029	E1668C		0.000791 UJ	0.00509 UJ	0.00295 UJ	0.00088 UJ
PCB-027	E1668C		0.000854 UJ	0.00658 UJ	0.00312 UJ	0.000981 UJ
PCB-031	E1668C		0.000814 UJ	0.00434 UJ	0.00252 UJ	0.000748 UJ
PCB-032	E1668C		0.000769 UJ	0.00593 UJ	0.00285 UJ	0.000882 UJ
PCB-034	E1668C		0.000802 UJ	0.00519 UJ	0.00302 UJ	0.000897 UJ
PCB-035	E1668C		0.000563 UJ	0.00368 UJ	0.00203 UJ	0.000629 UJ
PCB-036	E1668C		0.000439 UJ	0.00281 UJ	0.00158 UJ	0.00049 UJ
PCB-037	E1668C		**0.000513 J**	0.00333 UJ	0.00182 UJ	0.00056 UJ
PCB-038	E1668C		0.000597 UJ	0.00394 UJ	0.00217 UJ	0.000668 UJ
PCB-039	E1668C		0.000464 UJ	0.00302 UJ	0.00169 UJ	0.000519 UJ
PCB-040/071	E1668C		**0.000538 J**	**0.0022 J**	**0.00378 J**	**0.00146 J**
PCB-041	E1668C		0.000606 UJ	0.00572 UJ	0.00226 UJ	0.000556 UJ
PCB-042	E1668C		0.000479 UJ	0.0045 UJ	**0.00183 J**	**0.000839 J**
PCB-043	E1668C		0.000424 UJ	0.00392 UJ	0.00158 UJ	0.000389 UJ
PCB-044/047/065	E1668C		**0.00492 J**	**0.0446 J**	**0.0331 J**	**0.0126 J**
PCB-045	E1668C		0.000813 UJ	0.00738 UJ	0.00294 UJ	**0.000774 J**
PCB-046	E1668C		0.000823 UJ	0.00755 UJ	0.00305 UJ	0.000755 UJ
PCB-048	E1668C		0.000413 UJ	0.0039 UJ	0.00154 UJ	0.000379 UJ
PCB-049/069	E1668C		**0.00231 J**	**0.0162 J**	**0.018 J**	**0.00669 J**
PCB-050/053	E1668C		**0.00125 J**	**0.0183 J**	**0.0146 J**	**0.00556 J**

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-5-GAC-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-5-BIOC-A-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-5-BIOC-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-10-BIOC-A-241030
PCB-051	E1668C	**0.000562 J**	**0.00735 J**	**0.00631 J**	**0.00275 J**
PCB-052	E1668C	**0.00573 J**	**0.0462 J**	**0.0424 J**	**0.0166 J**
PCB-054	E1668C	0.000763 UJ	0.00259 UJ	0.00144 UJ	0.000866 UJ
PCB-055	E1668C	0.000192 UJ	0.0025 UJ	0.00136 UJ	0.000376 UJ
PCB-056	E1668C	0.000196 UJ	0.00259 UJ	0.00141 UJ	0.000383 UJ
PCB-057	E1668C	0.000184 UJ	0.00244 UJ	0.00132 UJ	0.000361 UJ
PCB-058	E1668C	0.000163 UJ	**0.0241 J**	**0.0301 J**	0.000317 UJ
PCB-059/062/075	E1668C	0.00022 UJ	0.00208 UJ	**0.00128 J**	**0.000378 J**
PCB-060	E1668C	0.000229 UJ	0.00306 UJ	0.00167 UJ	0.00045 UJ
PCB-061/070/074/076	E1668C	0.00228 UJ	**0.0116 J**	**0.0108 J**	**0.00363 J**
PCB-063	E1668C	0.000199 UJ	0.00259 UJ	0.0014 UJ	0.000388 UJ
PCB-064	E1668C	0.000662 UJ	**0.00204 J**	**0.00186 J**	0.000728 UJ
PCB-066	E1668C	0.000527 UJ	0.0021 UJ	**0.00155 J**	0.000682 UJ
PCB-067	E1668C	0.000152 UJ	0.00199 UJ	0.00107 UJ	**0.000248 J**
PCB-068	E1668C	0.000155 UJ	0.00201 UJ	0.00109 UJ	0.000304 UJ
PCB-072	E1668C	0.000144 UJ	0.00192 UJ	0.00102 UJ	0.000282 UJ
PCB-073	E1668C	0.000173 UJ	0.00161 UJ	**0.00161 J**	**0.000486 J**
PCB-077	E1668C	0.000274 UJ	0.00183 UJ	0.00107 UJ	0.000338 UJ
PCB-078	E1668C	0.000126 UJ	0.0017 UJ	0.000943 UJ	0.000246 UJ
PCB-079	E1668C	**0.000173 J**	0.0012 UJ	**0.000933 J**	**0.000384 J**
PCB-080	E1668C	0.0000897 UJ	0.00122 UJ	0.000662 UJ	0.000176 UJ
PCB-081	E1668C	0.000129 UJ	0.00167 UJ	0.000923 UJ	0.000253 UJ
PCB-082	E1668C	**0.00179 J**	**0.0232 J**	**0.0209 J**	**0.00648 J**
PCB-083	E1668C	0.000151 UJ	**0.0194 J**	**0.0396 J**	**0.00599 J**
PCB-084	E1668C	**0.01 J**	**0.202 J**	**0.19 J**	**0.056 J**
PCB-085/116	E1668C	**0.00338 J**	**0.0415 J**	**0.0377 J**	**0.0115 J**
PCB-086/087/097/109/	E1668C	**0.0149 J**	**0.223 J**	**0.2 J**	**0.0585 J**
PCB-088	E1668C	0.000215 UJ	0.00228 UJ	0.000866 UJ	0.000295 UJ
PCB-089	E1668C	0.000192 UJ	**0.00406 J**	**0.00371 J**	**0.00101 J**
PCB-090/101/113	E1668C	**0.0382 J**	**0.6 J**	**0.536 J**	**0.148 J**
PCB-091	E1668C	**0.0108 J**	**0.229 J**	**0.199 J**	**0.057 J**
PCB-092	E1668C	**0.0114 J**	**0.211 J**	**0.19 J**	**0.0508 J**
PCB-093/100	E1668C	**0.00313 J**	**0.0684 J**	**0.0709 J**	**0.0189 J**
PCB-094	E1668C	**0.0011 J**	**0.0298 J**	**0.0304 J**	**0.00831 J**
PCB-095	E1668C	**0.0575 J**	**1.285 J**	**1.238 J**	**0.357 J**
PCB-096	E1668C	**0.00198 J**	**0.0602 J**	**0.0635 J**	**0.0176 J**
PCB-098	E1668C	0.000153 UJ	0.0019 UJ	0.000603 UJ	**0.000599 J**
PCB-099	E1668C	**0.0136 J**	**0.19 J**	**0.184 J**	**0.0478 J**
PCB-102	E1668C	**0.00159 J**	**0.0276 J**	**0.0328 J**	**0.00808 J**
PCB-103	E1668C	**0.00162 J**	**0.0415 J**	**0.0401 J**	**0.0106 J**
PCB-104	E1668C	0.000543 UJ	**0.00891 J**	**0.00815 J**	**0.00227 J**
PCB-105	E1668C	**0.0032 J**	**0.0258 J**	**0.0291 J**	**0.00607 J**
PCB-106	E1668C	0.0000397 UJ	0.000484 UJ	0.000166 UJ	0.0000543 UJ
PCB-107	E1668C	**0.000446 J**	**0.00274 J**	**0.00229 J**	**0.000774 J**
PCB-108/124	E1668C	**0.000303 J**	**0.00245 J**	**0.00301 J**	**0.000764 J**

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-5-GAC-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-5-BIOC-A-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-5-BIOC-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-10-BIOC-A-241030
PCB-110	E1668C	**0.0152 J**	**0.226 J**	**0.194 J**	**0.0574 J**
PCB-111	E1668C	0.0000335 UJ	0.000396 UJ	0.000136 UJ	**0.00007 J**
PCB-112	E1668C	0.0000546 UJ	0.000652 UJ	0.000226 UJ	0.0000746 UJ
PCB-114	E1668C	**0.000587 J**	**0.00409 J**	**0.0053 J**	**0.00121 J**
PCB-115	E1668C	0.0000539 UJ	0.000581 UJ	0.000216 UJ	0.0000738 UJ
PCB-117	E1668C	**0.000213 J**	**0.00523 J**	**0.004 J**	**0.00109 J**
PCB-118	E1668C	**0.00264 J**	**0.0168 J**	**0.0171 J**	**0.00512 J**
PCB-120	E1668C	**0.000295 J**	**0.00289 J**	**0.00306 J**	**0.000643 J**
PCB-121	E1668C	0.0000387 UJ	0.000452 UJ	**0.000533 J**	**0.000152 J**
PCB-122	E1668C	**0.000159 J**	0.000559 UJ	0.000216 UJ	**0.000373 J**
PCB-123	E1668C	**0.000205 J**	**0.00177 J**	**0.00229 J**	**0.000528 J**
PCB-126	E1668C	0.000185 UJ	0.000661 UJ	0.000627 UJ	0.000151 UJ
PCB-127	E1668C	0.0000195 UJ	0.000273 UJ	0.0000863 UJ	**0.00025 J**
PCB-128/166	E1668C	**0.0948 J**	**0.33 J**	**0.367 J**	**0.102 J**
PCB-129/138/163	E1668C	**0.234 J**	**2.275 J**	**2.535 J**	**0.518 J**
PCB-130	E1668C	**0.0143 J**	**0.119 J**	**0.138 J**	**0.029 J**
PCB-131	E1668C	**0.0037 J**	**0.05 J**	**0.0523 J**	**0.0111 J**
PCB-132	E1668C	**0.148 J**	**1.875 J**	**2.085 J**	**0.447 J**
PCB-133	E1668C	**0.00688 J**	**0.0643 J**	**0.0708 J**	**0.0152 J**
PCB-134	E1668C	**0.0306 J**	**0.441 J**	**0.453 J**	**0.11 J**
PCB-135/151	E1668C	**0.249 J**	**3.876 J**	**3.976 J**	**0.916 J**
PCB-136	E1668C	**0.104 J**	**2.018 J**	**2.277 J**	**0.512 J**
PCB-137	E1668C	**0.00482 J**	**0.0353 J**	**0.043 J**	**0.00907 J**
PCB-139/140	E1668C	**0.0066 J**	**0.0657 J**	**0.066 J**	**0.0141 J**
PCB-141	E1668C	**0.0712 J**	**0.657 J**	**0.744 J**	**0.157 J**
PCB-142	E1668C	0.0000445 UJ	0.000493 UJ	0.00027 UJ	0.0000779 UJ
PCB-143	E1668C	**0.00132 J**	0.000388 UJ	0.000216 UJ	0.0000558 UJ
PCB-144	E1668C	**0.0266 J**	**0.37 J**	**0.38 J**	**0.0838 J**
PCB-145	E1668C	**0.000563 J**	**0.00782 J**	0.000334 UJ	0.0000997 UJ
PCB-146	E1668C	**0.0423 J**	**0.396 J**	**0.435 J**	**0.0885 J**
PCB-147/149	E1668C	**0.479 J**	**6.837 J**	**7.435 J**	**1.549 J**
PCB-148	E1668C	**0.00228 J**	**0.0243 J**	**0.0248 J**	**0.00581 J**
PCB-150	E1668C	**0.0118 J**	**0.123 J**	**0.134 J**	**0.0318 J**
PCB-152	E1668C	**0.00558 J**	**0.0741 J**	**0.0781 J**	**0.0202 J**
PCB-153/168	E1668C	**0.212 J**	**1.925 J**	**2.156 J**	**0.421 J**
PCB-154	E1668C	**0.0115 J**	**0.12 J**	**0.119 J**	**0.0255 J**
PCB-155	E1668C	**0.000417 J**	**0.00228 J**	**0.00251 J**	**0.00066 J**
PCB-156/157	E1668C	**0.00222 J**	**0.00955 J**	**0.01 J**	**0.0027 J**
PCB-158	E1668C	**0.0267 J**	**0.126 J**	**0.138 J**	**0.0359 J**
PCB-159	E1668C	**0.036 J**	**0.0956 J**	**0.107 J**	**0.0321 J**
PCB-160	E1668C	0.0000141 UJ	0.000151 UJ	0.0000834 UJ	0.0000248 UJ
PCB-161	E1668C	0.0000088 UJ	0.0000968 UJ	0.000053 UJ	0.0000154 UJ
PCB-162	E1668C	**0.000313 J**	**0.00161 J**	**0.00154 J**	**0.000378 J**
PCB-164	E1668C	**0.0104 J**	**0.102 J**	**0.118 J**	**0.0268 J**
PCB-165	E1668C	0.0000107 UJ	**0.00676 J**	0.0000644 UJ	0.0000187 UJ

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Location ID Sample Date Sample ID Method	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-5-GAC-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-5-BIOC-A-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-5-BIOC-B-241030	VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-10-BIOC-A-241030
PCB-167	E1668C	**0.00198 J**	**0.00802 J**	**0.00888 J**	**0.00209 J**
PCB-169	E1668C	0.000206 UJ	0.00143 UJ	0.000712 UJ	0.00016 UJ
PCB-170	E1668C	**0.46 J**	**0.996 J**	**1.029 J**	**0.276 J**
PCB-171/173	E1668C	**0.369 J**	**0.717 J**	**0.859 J**	**0.253 J**
PCB-172	E1668C	**0.0994 J**	**0.198 J**	**0.23 J**	**0.0662 J**
PCB-174	E1668C	**1.466 J**	**3.203 J**	**3.874 J**	**1.223 J**
PCB-175	E1668C	**0.0603 J**	**0.126 J**	**0.143 J**	**0.0467 J**
PCB-176	E1668C	**0.843 J**	**1.685 J**	**1.978 J**	**0.802 J**
PCB-177	E1668C	**0.811 J**	**1.714 J**	**2.032 J**	**0.633 J**
PCB-178	E1668C	**0.334 J**	**0.861 J**	**0.996 J**	**0.338 J**
PCB-179	E1668C	**2.781 J**	**6.161 J**	**7.105 J**	**2.84 J**
PCB-180/193	E1668C	**0.993 J**	**2.091 J**	**2.435 J**	**0.626 J**
PCB-181	E1668C	**0.0057 J**	**0.0103 J**	**0.0121 J**	**0.00364 J**
PCB-182	E1668C	**0.00553 J**	**0.0106 J**	**0.0117 J**	**0.004 J**
PCB-183	E1668C	**0.65 J**	**1.371 J**	**1.648 J**	**0.479 J**
PCB-184	E1668C	**0.00241 J**	**0.00471 J**	**0.00421 J**	**0.00223 J**
PCB-185	E1668C	**0.164 J**	**0.376 J**	**0.431 J**	**0.121 J**
PCB-186	E1668C	**0.000481 J**	0.000306 UJ	**0.000861 J**	0.0000531 UJ
PCB-187	E1668C	**1.375 J**	**3.299 J**	**3.808 J**	**1.206 J**
PCB-188	E1668C	**0.012 J**	**0.0216 J**	**0.0221 J**	**0.011 J**
PCB-189	E1668C	**0.00294 J**	**0.00523 J**	**0.00588 J**	**0.00136 J**
PCB-190	E1668C	**0.0467 J**	**0.113 J**	**0.119 J**	**0.0308 J**
PCB-191	E1668C	**0.00986 J**	**0.0221 J**	**0.0245 J**	**0.00644 J**
PCB-192	E1668C	0.0000633 UJ	0.000438 UJ	0.000261 UJ	0.0000579 UJ
PCB-194	E1668C	**0.186 J**	**0.229 J**	**0.242 J**	**0.137 J**
PCB-195	E1668C	**0.204 J**	**0.24 J**	**0.238 J**	**0.17 J**
PCB-196	E1668C	**0.239 J**	**0.291 J**	**0.313 J**	**0.221 J**
PCB-197	E1668C	**0.0624 J**	**0.0731 J**	**0.0704 J**	**0.0655 J**
PCB-198/199	E1668C	**0.475 J**	**0.65 J**	**0.676 J**	**0.484 J**
PCB-200	E1668C	**0.262 J**	**0.316 J**	**0.297 J**	**0.274 J**
PCB-201	E1668C	**0.123 J**	**0.14 J**	**0.144 J**	**0.129 J**
PCB-202	E1668C	**0.296 J**	**0.361 J**	**0.353 J**	**0.316 J**
PCB-203	E1668C	**0.249 J**	**0.301 J**	**0.324 J**	**0.227 J**
PCB-204	E1668C	**0.000339 J**	**0.000356 J**	**0.00034 J**	**0.000353 J**
PCB-205	E1668C	**0.00579 J**	**0.00801 J**	**0.00854 J**	**0.00425 J**
PCB-206	E1668C	**0.0253 J**	**0.0282 J**	**0.0281 J**	**0.0293 J**
PCB-207	E1668C	**0.0108 J**	**0.0112 J**	**0.0113 J**	**0.0141 J**
PCB-208	E1668C	**0.0158 J**	**0.017 J**	**0.0168 J**	**0.021 J**
PCB-209	E1668C	**0.00122 J**	**0.00119 J**	**0.0012 J**	**0.00176 J**
Total PCB Congener (U	Calculated	**15 J**	**51 J**	**57 J**	**17 J**

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Method	Location ID Sample Date Sample ID VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-10-BIOC-B-241030
PCB Congeners (SPME) (ng/L)		
PCB-001	E1668C	0.00974 UJ
PCB-002	E1668C	0.0031 UJ
PCB-003	E1668C	0.00351 UJ
PCB-004	E1668C	0.00296 UJ
PCB-005	E1668C	0.00176 UJ
PCB-006	E1668C	0.00122 UJ
PCB-007	E1668C	0.0014 UJ
PCB-008	E1668C	0.00114 UJ
PCB-009	E1668C	0.00129 UJ
PCB-010	E1668C	0.00257 UJ
PCB-011	E1668C	0.00334 UJ
PCB-012/013	E1668C	0.00101 UJ
PCB-014	E1668C	0.00089 UJ
PCB-015	E1668C	0.000767 UJ
PCB-016	E1668C	0.00308 UJ
PCB-017	E1668C	0.00245 UJ
PCB-018/030	E1668C	0.00171 UJ
PCB-019	E1668C	0.00366 UJ
PCB-020/028	E1668C	0.000914 UJ
PCB-021/033	E1668C	0.00115 UJ
PCB-022	E1668C	0.000854 UJ
PCB-023	E1668C	0.00101 UJ
PCB-024	E1668C	0.00144 UJ
PCB-025	E1668C	0.000664 UJ
PCB-026/029	E1668C	0.000809 UJ
PCB-027	E1668C	0.00117 UJ
PCB-031	E1668C	0.000684 UJ
PCB-032	E1668C	0.00105 UJ
PCB-034	E1668C	0.00082 UJ
PCB-035	E1668C	0.000576 UJ
PCB-036	E1668C	0.000449 UJ
PCB-037	E1668C	0.000512 UJ
PCB-038	E1668C	0.000611 UJ
PCB-039	E1668C	0.000475 UJ
PCB-040/071	E1668C	**0.00113 J**
PCB-041	E1668C	0.000681 UJ
PCB-042	E1668C	**0.000351 J**
PCB-043	E1668C	0.000477 UJ
PCB-044/047/065	E1668C	**0.00901 J**
PCB-045	E1668C	**0.000551 J**
PCB-046	E1668C	0.000925 UJ
PCB-048	E1668C	0.000464 UJ
PCB-049/069	E1668C	**0.00534 J**
PCB-050/053	E1668C	**0.00402 J**

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Method	Location ID: VP81-G-10/11-BST Sample Date: 10/30/2024 Sample ID: HOUS-VP81-JAR-SPME-10-BIOC-B-241030
PCB-051	E1668C	**0.00196 J**
PCB-052	E1668C	**0.0109 J**
PCB-054	E1668C	0.000748 UJ
PCB-055	E1668C	0.000243 UJ
PCB-056	E1668C	0.000249 UJ
PCB-057	E1668C	0.000234 UJ
PCB-058	E1668C	0.000206 UJ
PCB-059/062/075	E1668C	**0.000158 J**
PCB-060	E1668C	0.00029 UJ
PCB-061/070/074/076	E1668C	0.00312 UJ
PCB-063	E1668C	0.000251 UJ
PCB-064	E1668C	0.000396 UJ
PCB-066	E1668C	0.000581 UJ
PCB-067	E1668C	0.000193 UJ
PCB-068	E1668C	0.000197 UJ
PCB-072	E1668C	0.000183 UJ
PCB-073	E1668C	**0.000305 J**
PCB-077	E1668C	0.000214 UJ
PCB-078	E1668C	0.000159 UJ
PCB-079	E1668C	**0.000377 J**
PCB-080	E1668C	0.000114 UJ
PCB-081	E1668C	0.000163 UJ
PCB-082	E1668C	**0.00511 J**
PCB-083	E1668C	**0.005 J**
PCB-084	E1668C	**0.0452 J**
PCB-085/116	E1668C	**0.00918 J**
PCB-086/087/097/109/	E1668C	**0.0467 J**
PCB-088	E1668C	0.000531 UJ
PCB-089	E1668C	**0.000903 J**
PCB-090/101/113	E1668C	**0.118 J**
PCB-091	E1668C	**0.0449 J**
PCB-092	E1668C	**0.0406 J**
PCB-093/100	E1668C	**0.0146 J**
PCB-094	E1668C	**0.00615 J**
PCB-095	E1668C	**0.273 J**
PCB-096	E1668C	**0.0127 J**
PCB-098	E1668C	**0.000559 J**
PCB-099	E1668C	**0.0404 J**
PCB-102	E1668C	**0.00605 J**
PCB-103	E1668C	**0.00816 J**
PCB-104	E1668C	**0.00171 J**
PCB-105	E1668C	**0.00419 J**
PCB-106	E1668C	0.0000979 UJ
PCB-107	E1668C	**0.000565 J**
PCB-108/124	E1668C	**0.000627 J**

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Method	Location ID: VP81-G-10/11-BST Sample Date: 10/30/2024 Sample ID: HOUS-VP81-JAR-SPME-10-BIOC-B-241030
PCB-110	E1668C	**0.0467 J**
PCB-111	E1668C	0.0000827 UJ
PCB-112	E1668C	0.000135 UJ
PCB-114	E1668C	**0.000891 J**
PCB-115	E1668C	0.000133 UJ
PCB-117	E1668C	**0.000969 J**
PCB-118	E1668C	**0.00437 J**
PCB-120	E1668C	0.0000629 UJ
PCB-121	E1668C	**0.000103 J**
PCB-122	E1668C	0.000125 UJ
PCB-123	E1668C	**0.000404 J**
PCB-126	E1668C	0.000133 UJ
PCB-127	E1668C	0.0000497 UJ
PCB-128/166	E1668C	**0.0792 J**
PCB-129/138/163	E1668C	**0.409 J**
PCB-130	E1668C	**0.0222 J**
PCB-131	E1668C	**0.0085 J**
PCB-132	E1668C	**0.333 J**
PCB-133	E1668C	**0.0117 J**
PCB-134	E1668C	**0.0797 J**
PCB-135/151	E1668C	**0.693 J**
PCB-136	E1668C	**0.374 J**
PCB-137	E1668C	**0.00697 J**
PCB-139/140	E1668C	**0.0108 J**
PCB-141	E1668C	**0.115 J**
PCB-142	E1668C	0.0000606 UJ
PCB-143	E1668C	**0.0022 J**
PCB-144	E1668C	**0.0621 J**
PCB-145	E1668C	**0.00132 J**
PCB-146	E1668C	**0.0674 J**
PCB-147/149	E1668C	**1.161 J**
PCB-148	E1668C	**0.00444 J**
PCB-150	E1668C	**0.0242 J**
PCB-152	E1668C	**0.0141 J**
PCB-153/168	E1668C	**0.316 J**
PCB-154	E1668C	**0.0194 J**
PCB-155	E1668C	**0.000524 J**
PCB-156/157	E1668C	**0.0022 J**
PCB-158	E1668C	**0.0307 J**
PCB-159	E1668C	**0.0257 J**
PCB-160	E1668C	0.0000192 UJ
PCB-161	E1668C	0.000012 UJ
PCB-162	E1668C	**0.000394 J**
PCB-164	E1668C	**0.0207 J**
PCB-165	E1668C	**0.000894 J**

Attachment D-2

Jar Testing Porewater (SPME) PCB Data

Chemical	Method	Location ID Sample Date Sample ID VP81-G-10/11-BST 10/30/2024 HOUS-VP81-JAR-SPME-10-BIOC-B-241030
PCB-167	E1668C	**0.00178 J**
PCB-169	E1668C	0.000165 UJ
PCB-170	E1668C	**0.207 J**
PCB-171/173	E1668C	**0.206 J**
PCB-172	E1668C	**0.0531 J**
PCB-174	E1668C	**1.013 J**
PCB-175	E1668C	**0.0379 J**
PCB-176	E1668C	**0.616 J**
PCB-177	E1668C	**0.519 J**
PCB-178	E1668C	**0.273 J**
PCB-179	E1668C	**2.219 J**
PCB-180/193	E1668C	**0.498 J**
PCB-181	E1668C	**0.00321 J**
PCB-182	E1668C	**0.00356 J**
PCB-183	E1668C	**0.39 J**
PCB-184	E1668C	**0.00184 J**
PCB-185	E1668C	**0.0984 J**
PCB-186	E1668C	**0.000412 J**
PCB-187	E1668C	**0.985 J**
PCB-188	E1668C	**0.00904 J**
PCB-189	E1668C	**0.00112 J**
PCB-190	E1668C	**0.023 J**
PCB-191	E1668C	**0.00524 J**
PCB-192	E1668C	0.0000526 UJ
PCB-194	E1668C	**0.116 J**
PCB-195	E1668C	**0.137 J**
PCB-196	E1668C	**0.192 J**
PCB-197	E1668C	**0.0571 J**
PCB-198/199	E1668C	**0.423 J**
PCB-200	E1668C	**0.241 J**
PCB-201	E1668C	**0.112 J**
PCB-202	E1668C	**0.295 J**
PCB-203	E1668C	**0.196 J**
PCB-204	E1668C	**0.000308 J**
PCB-205	E1668C	**0.00365 J**
PCB-206	E1668C	**0.0282 J**
PCB-207	E1668C	**0.0141 J**
PCB-208	E1668C	**0.021 J**
PCB-209	E1668C	**0.00189 J**
Total PCB Congener (U	Calculated	**14 J**

Attachment D-2
Jar Testing Porewater (SPME) PCB Data

Notes:

Bold: Detected result

Calculated values have been rounded to laboratory-reported significant digits

J: Estimated value

U: Compound analyzed for, but not detected above detection limit

UJ: Compound analyzed for, but not detected above estimated detection limit

Appendix C
Vernal Pool Pilot Study Baseline Monitoring Report

Vernal Pool 5A-VP-42

June 2025
GE-Pittsfield/Housatonic River Site

ANCHOR QEA AECOM

Vernal Pool Pilot Study Baseline Monitoring Report

June 2025
GE-Pittsfield/Housatonic River Site

Vernal Pool Pilot Study Baseline Monitoring Report

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ABBREVIATIONS

CWD	coarse woody debris
DQO	data quality objective
EPA	U.S. Environmental Protection Agency
Final Pilot Work Plan	*Final Revised Vernal Pool Pilot Study Work Plan*
FSP/QAPP	*Field Sampling Plan/Quality Assurance Project Plan*
FWD	fine woody debris
GE	General Electric Company
kg	kilogram
K_{oc}	organic carbon-porewater partitioning coefficient
L	liter
mg	milligram
mm	millimeter
ng	nanogram
OC	organic carbon
PCB	polychlorinated biphenyl
PDI	pre-design investigation
PDMS	polydimethylsiloxane
PRC	performance reference compound
QA/QC	quality assurance/quality control
Revised Pilot Work Plan	*Revised Vernal Pool Pilot Study Work Plan*
SGS Dayton	SGS North America in Dayton, New Jersey
SGS Wilmington	SGS North America in Wilmington, North Carolina
SPME	solid-phase microextraction
TOC	total organic carbon

1 Introduction

On November 13, 2023, the General Electric Company (GE) submitted a *Revised Vernal Pool Pilot Study Work Plan* (Revised Pilot Work Plan; Anchor QEA 2023) that was subsequently approved by the U.S. Environmental Protection Agency (EPA) on December 5, 2023. That work plan provided a description of baseline monitoring activities to be performed within the test and control pools selected for the pilot study. This *Vernal Pool Pilot Study Baseline Monitoring Report* provides a description of those baseline monitoring activities and results and is provided as an appendix to the *Final Revised Vernal Pool Pilot Study Work Plan* (Final Pilot Work Plan).

1.1 Vernal Pools Selected for Pilot Study

As described in the Final Pilot Work Plan, 10 vernal pools were selected for inclusion in the pilot study, as approved by EPA. Several criteria were used to select those 10 pools, including the following: (1) total polychlorinated biphenyl (PCB) spatially weighted average concentrations in the surface soil of the pools; (2) pool size; (3) pool accessibility; (4) surrounding habitat; (5) location outside of Core Area 1 habitat; (6) known species within the pool; (7) vegetative cover within the pool; and (8) pool hydrology. Five of these 10 pools will receive removal-based remediation, and the remaining five pools will receive amendment-based remediation (collectively referred to hereafter as "test pools") during the pilot study. These 10 pools are summarized in Section 1.4 and Table 1-3 of the Final Pilot Work Plan and are shown on Figure 1-1. The five amendment pools are 5A-VP-9, 5A-VP-12, 5A-VP-15, 5A-VP-22, and 5A-VP-27. The five pools that will be subject to removal are 5A-VP-4, 5A-VP-7, 5A-VP-16, 5A-VP-52, and 5A-VP-57.

Seven additional vernal pools were selected to be used as field controls (referred to hereafter as "control pools") during the pilot study. The seven control pools are 5A-VP-3, 5A-VP-5, 5A-VP-10, 5A-VP-21, 5A-VP-26, 5A-VP-55, and 5A-VP-61. These control pools will be used to differentiate any changes that may occur in vernal pool ecology as a result of remediation from changes that may occur naturally in response to environmental conditions. The control pools are likewise listed in Table 1-3 of the Final Pilot Work Plan and shown on Figure 1-1.

1.2 Baseline Monitoring Overview and Objectives

Baseline monitoring included PCB sampling and ecological monitoring within the selected pools. Prior sampling events, including the non-residential floodplain pre-design investigation (PDI), summarized in GE's *Pre-Design Investigation Summary Report for Reach 5A Non-Residential Floodplain Exposure Areas* (Anchor QEA and Arcadis 2023), provided sufficient characterization of soil PCB concentrations within the vernal pools in Reach 5A to determine which pools would require remediation. However, additional PCB data were needed to establish baseline conditions in the pools selected for placement of an amendment. Baseline ecological monitoring was performed in all pools

included in the pilot study, including all 10 test pools and seven control pools. Specific data quality objectives (DQOs) for this baseline data collection were as follows:

DQO 1: Provide data on baseline (i.e., pre-treatment) soil porewater PCB concentrations in each of the five vernal pools that will be subject to treatment with an amendment.

DQO 2: Provide additional data needed to calculate vernal pool-specific organic carbon (OC) partitioning coefficients of PCBs (i.e., K_{oc}) in the five vernal pools that will be subject to treatment with an amendment.

DQO 3: Provide updated information related to ecological status of all test and control vernal pools.

In the vernal pools receiving amendment-based treatment, baseline monitoring activities consisted of soil sampling, porewater sampling, ecological monitoring, and a bathymetric survey. In the vernal pools subject to removal, the baseline activities consisted of soil sampling for basic soil chemistry and composition parameters (pH, OC content, moisture content, and grain size distribution), ecological monitoring, and a bathymetric survey. In the control vernal pools, only ecological monitoring was performed.

1.3 Report Organization

The remainder of this *Vernal Pool Pilot Study Baseline Monitoring Report* is organized into the following sections:

- Section 2 describes the methods and results from the baseline PCB sampling (DQO 1).
- Section 3 describes the data evaluation and methods used to calculate a site-specific PCB partitioning coefficient within the vernal pools (DQO 2).
- Section 4 describes the methods and results of the baseline ecological monitoring (DQO 3).

2 Baseline Sampling for PCBs

This section describes the sampling methods and results of soil and porewater PCB sampling conducted in the five amendment-based test pools. These pools were sampled to establish the initial porewater PCB concentrations in the pools prior to treatment and to calculate soil porewater partition coefficients. These coefficients are used to convert soil PCB measurements into porewater PCB concentrations in cases where only the soil matrix is sampled.

2.1 Sample Collection

Section 4.1.1 of the Revised Pilot Work Plan provided a summary of the methods to be used for soil and porewater sample collection. This section summarizes those methods and describes any changes or deviations from those methods. The baseline PCB sampling activities were conducted from May 29 to July 31, 2024.

2.1.1 Soil Sampling

Bulk soil samples were collected from the five vernal pools selected for amendment-based treatment (5A-VP-9, 5A-VP-12, 5A-VP-15, 5A-VP-22, and 5A-VP-27). The soil sampling locations reoccupied 34 locations sampled previously during the non-residential floodplain PDI to provide the desired spatial coverage in each pool. In addition to these sampling locations, one additional soil sample (VP9-FL000954) was collected in pool 5A-VP-9. All soil samples were collected from the 0- to 0.5-foot depth interval and submitted to SGS North America in Dayton, New Jersey (SGS Dayton) for analysis of PCBs as Aroclors (by EPA Method 8082) and total organic carbon (TOC) (by the Lloyd Kahn Method). Samples were also submitted to SGS North America in Wilmington, North Carolina (SGS Wilmington) for analysis of PCB congeners (by EPA Method 1668C). The soil sample from one location (VP9-W-17) was inadvertently disposed of by the Aroclor PCB laboratory (SGS Dayton) before it could be sent to SGS Wilmington for congener PCB analysis. As a result, only PCB Aroclors and TOC data are available for VP9-W-17. Sample collection logs are provided in Attachment A.

2.1.2 Porewater Sampling

Porewater samples were collected in situ from the five vernal pools selected for amendment-based treatment (5A-VP-9, 5A-VP-12, 5A-VP-15, 5A-VP-22, and 5A-VP-27) using passive samplers. The porewater sampling locations were colocated with the bulk soil sampling locations described in Section 2.1.1. At each location, a stainless-steel push-point sampler loaded with polydimethylsiloxane (PDMS)-coated glass fibers (i.e., solid-phase microextraction [SPME] fibers) was deployed to measure porewater PCB concentrations.[1] Two 0.5-foot SPME fibers were loaded into each push-point sampler,

[1] SPME fibers were prepared in the same way as those used for the bench-scale testing described in Section 3.2 of Appendix B to the Final Pilot Work Plan.

and the samplers were then individually wrapped in aluminum foil, stored in a cooler with ice, and shipped to the site for deployment.

At each porewater sampling location, the push-point samplers loaded with SPME fibers were advanced into the soil to a depth of 0.5 feet in accordance with the standard operating procedure for in situ SPME sampling provided in Appendix E2 of GE's 2023 *Field Sampling Plan/Quality Assurance Project Plan* (FSP/QAPP; Arcadis 2023). All passive samplers were allowed to equilibrate with porewater for approximately two months from May 29 to July 30, 2024. At the end of that period, the push-point samplers were retrieved from the soil and disassembled to retrieve the SPME fibers. The fibers were then thoroughly cleaned using deionized water and wipes. After cleaning, the SPME fibers were placed into pre-cleaned glass vials, packed into a cooler with ice, and submitted to SGS Wilmington for congener PCB analysis. It should be noted that during shipment to the laboratory, the cooler containing the SPME samples was damaged, and six samples could not be analyzed, including VP9-W/X-13/14, VP9-X-14, VP12-B/C-1/2, VP12-C/D-4, VP22-F/G-2/3, and VP27-F-5.

2.1.2.1 Calculation of Freely Dissolved PCB Concentrations in Porewater

This section outlines the steps used for calculating freely dissolved PCB concentrations in soil porewater. These concentrations were calculated using the PCB concentrations measured on the SPME fibers after deployment (reported by SGS North America), divided by the PDMS-water partitioning coefficient and the fraction of equilibrium achieved within the SPME fiber (f_e), as shown in Equation 1.

Equation 1

$$C_w = \frac{C_{PDMS}}{K_{PDMS-W} \times f_e}$$

where:

C_w	=	freely dissolved concentration in porewater (nanograms [ng] per liter [L])
C_{PDMS}	=	concentration in PDMS polymer (ng per kilogram [kg])
K_{PDMS-W}	=	PDMS-water partitioning coefficient (L/kg)
f_e	=	fraction of equilibrium (-)

A regression was developed between measured PDMS-water partitioning coefficient (K_{PDMS-W}) values and published octanol-water partitioning coefficient (K_{OW}) values based on data provided by Smedes et al. (2009) for PCBs (Equation 2). The selected PCB congeners provided in Smedes et al. (2009) have log K_{PDMS-W}-log K_{OW} pairs that, when plotted, line up consistently and are well correlated. By incorporating PCB congeners that span the full range of K_{OW} values, the regression is more robust

and can be used for all PCB congeners. Using this regression equation, the $K_{PDMS\text{-}water}$ value for each PCB was calculated based on the K_{OW} value of the compound. The log K_{OW} of PCBs are obtained from Hawker and Connell (1988) and were adjusted based on the K_{OW} values measured by De Bruijn et al. (1989) with a slow stirring method, which is generally considered a more reliable method for K_{OW} values (OECD 2006).

Equation 2

$$\log K_{PDMS-W} = 0.903 \times \log K_{ow} - 0.159 \qquad (r^2 = 0.937)$$

where:

$K_{PDMS\text{-}W}$	=	PDMS-water partitioning coefficient
K_{ow}	=	octanol-water partitioning coefficient

The f_e values were calculated for each of the six performance reference compounds (PRCs) that were spiked onto the SPME fibers during preparation, as shown in Equation 3.

Equation 3

$$f_e = 1 - \frac{C_{PRC,final}}{C_{PRC,init}}$$

where:

f_e	=	fraction of equilibrium
$C_{PRC,final}$	=	final PRC concentration in SPME fiber
$C_{PRC,init}$	=	initial PRC concentration in SPME fiber

Subsequently, the f_e values were calculated for each of the target PCB congeners using the approach of Lampert et al. (2015). The freely dissolved concentrations of the target PCB congeners in porewater were then estimated using Equation 1. The average percent recovery of the PRCs after deployment ranged from 2.5% to 98%. Less hydrophobic PRCs had lower percent recoveries in all of the SPME samples, indicating that they were closer to achieving equilibrium than the more hydrophobic PRCs, as expected.

2.1.2.2 Quality Assurance/Quality Control

Method blank, PRC-loaded SPME passive sampler reproducibility standards and field duplicate samplers were prepared to assess the data quality of the SPME passive sampling in the baseline

sampling program. Details of these quality assurance/quality control (QA/QC) samples are summarized as follows:

- **Method blanks:** Three method blank samplers were used to assess whether any background contamination was introduced to the SPME fibers during cutting, cleaning, and transportation. The method blanks were cut and cleaned with the other SPME fibers, then wrapped with aluminum foil, and shipped in an air-tight mylar bag to the field site. Method blank samplers were also transported with the SPME fibers into the field each day during deployment. At the end of the field sampling event, the method blank samplers were shipped to SGS North America for analysis. No notable PCB mass was detected in the method blank samples; the total PCB mass in the method blank samples ranged from 0.17 to 0.92 ng. This was less than 1% of the lowest mass detected in the deployed SPME samples and did not warrant any adjustments to the results. The background total PCB masses detected in the PRC-loaded SPME reproducibility standards were also low (0.14 to 2.9 ng).
- **PRC-loaded SPME passive sampler reproducibility standards:** These QA/QC samplers were used to assess the variability in the initial PRC concentrations. A criterion of 20% coefficient of variation has been recommended for evaluation of variability (Michalsen et al. 2021). These samplers were shipped with the SPME fibers that were deployed in the field; and following retrieval of the in situ SPMEs, these samplers were submitted to SGS North America for analysis. These samplers were used to characterize the initial PRC concentrations; the coefficient of variation in PRC concentrations ranged from 5.3% to 11.4%.
- **Field duplicates:** A field duplicate is a sample that is prepared and handled in an identical fashion to a "parent" sample and is used to measure variability in sample collection. For this baseline sampling program, field duplicates were collected for both soil and porewater data. For porewater samples, the relative percent difference for PCB congeners ranged from 33% to 63%. Additional laboratory duplicate samples were prepared at the analytical laboratory (i.e., SGS North America); these are provided in Attachment C.

2.2 Data Validation and Soil and Porewater PCB Results

Following receipt of the soil and SPME analytical results, the congener and Aroclor PCB data and TOC data underwent data review and validation in accordance with the pertinent procedures specified in GE's 2023 FSP/QAPP. This included validation of all such data to a Tier I level and validation of a minimum of 25% of the data to a Tier II level. Tables of all laboratory analytical data are provided in Attachment B, and data validation results are presented in Attachment C.

The validated PCB and TOC results for bulk soil and porewater samples collected from the five amendment-based test pools are summarized in Table 2-1. The PCB congener soil and porewater data are also presented on Figures 2-1 through 2-5.

Table 2-1
Baseline Sampling Results for PCB Concentrations in Porewater and Soil

Vernal Pool	Location ID	Congener Total PCB Concentration		Bulk Soil Aroclor Total PCB (mg/kg)	Bulk Soil TOC (%)
		Porewater (ng/L, U=0)	Bulk Soil (mg/kg, U=0)		
VP-9	VP9-FL000954	704	15.8	3.07	3.74
	VP9-V/W-14	284	15.3	1.39	5.02
	VP9-V-15/16	96.5	14.8	3.00	4.16
	VP9-W/X-13/14	—[a]	22.4	4.36	4.83
	VP9-W/X-16	82.4	22.6	5.21	6.98
	VP9-W-15	149	31.7	2.80	6.94
	VP9-W-17	1,720	—[b]	4.62	6.54
	VP9-X/Y-16	507	41.0	11.3	6.12
	VP9-X-13	306	18.2	4.44	5.74
	VP9-X-14	—[a]	20.7	5.68	5.43
VP-12	VP12-B/C-1/2	—[a]	21.5	4.67	6.8
	VP12-B/C-4	17.9	13.0	3.47	5.42
	VP12-B-2/3	91.6	16.5	1.58	6.41
	VP12-C/D-4	—[a]	13.9	4.40	8.55
	VP12-C-3	33.2	12.7	1.91	9.36
VP-15	VP15-G/H-9	61.5	13.1	4.92	7.21
	VP15-G-10	54.3	23.8	3.26	8.53
	VP15-G-11	49.2	21.4	5.94	7.84
	VP15-G-12	36.3	15.7	1.26	17.0
	VP15-G-13	48.0	29.9	1.76	7.85
	VP15-H-12	321	22.4	5.99	7.05
	VP15-H-14	65.2	22.6	4.27	6.94
	VP15-I-15	213	56.7	6.86	5.70
VP-22	VP22-B-4/5	106	11.2	1.16	10.2
	VP22-C-4	45.7	12.7	2.16	6.91
	VP22-D-3	33.6	3.80	0.436	7.09
	VP22-E-2	22.2	8.50	0.466	4.91
	VP22-F/G-2/3	—[a]	12.6	0.748	5.42
	VP22-F/G-3/4	303	7.40	1.31	6.96
	VP22-H-2	108	21.1	3.00	6.62
	VP22-H-3/4	70.7	8.30	1.19	5.23
	VP22-I-3	70.8	15.4	1.29	6.56

Vernal Pool	Location ID	Congener Total PCB Concentration		Bulk Soil Aroclor Total PCB (mg/kg)	Bulk Soil TOC (%)
		Porewater (ng/L, U=0)	Bulk Soil (mg/kg, U=0)		
VP-27	VP27-E/F-6	712	12.1	3.30	3.11
	VP27-F-4	130	7.10	1.15	5.16
	VP27-F-5	—[a]	6.70	1.52	4.59

Notes:

a. Porewater sample damaged in transit to the laboratory and could not be analyzed.

b. PCB congeners in soil not analyzed for this sample.

— : not analyzed due to sample loss

3 Calculation of PCB Partitioning Coefficients

To address DQO 2, site-specific OC partition coefficients (i.e., K_{OC}) were calculated for PCBs using the baseline soil and porewater congener PCB data collected from the five vernal pools selected for amendment-based treatment (5A-VP-9, 5A-VP-12, 5A-VP-15, 5A-VP-22, and 5A-VP-27) described in Section 2. The calculated K_{OC} values have been used in conjunction with the soil-based performance standard (described in Section 2.1 of the Final Pilot Work Plan) to calculate an equivalent porewater-based performance criterion, which will be used to assess the performance of the amendment-based treatment areas.

The vernal pool K_{OC} calculations described in this section were performed using the same approach as was previously described in the *Conceptual Remedial Design/Remedial Action Work Plan for Reach 5A* (Reach 5A Conceptual Work Plan; Anchor QEA et al. 2023). Using the equilibrium partitioning formula shown by Equation 4, K_{OC} values were calculated from paired congener PCB concentrations in vernal pool soils (C_s) and porewater (C_W) and OC fraction (f_{OC}) in the soils measured at the 28 baseline sampling locations that have paired soil and porewater PCB data (summarized in Table 2-1).[2]

Equation 4

$$K_{OC} = \frac{C_s}{f_{OC} \times C_w}$$

where:

K_{OC}	=	OC partition coefficient (L^3/M)
C_s	=	PCB concentration in soil [M/M]
f_{OC}	=	OC fraction in soil [M/M]
C_w	=	freely dissolved PCB concentration in porewater [M/L^3]

The K_{OC} values were calculated based on the congener total PCB results for each sample. For each sample, total PCB concentrations in soil normalized by OC fraction (i.e., C_s/f_{OC})[3] were plotted against measured freely dissolved total PCB concentrations in porewater. On a linear scale, the slope of the regression is equivalent to K_{OC} if the intercept of the regression is constrained to zero. However, such regressions can be strongly influenced by a limited number of high concentration data pairs and the associated uncertainty in those values. To mitigate this effect, the analysis was performed on a

[2] Locations where either soil or porewater PCB data are missing were not included in this analysis.

[3] f_{OC} values less than 0.2% were set to 0.2% to account for sorption to mineral surfaces that occurs at these low OC contents, consistent with the data treatment used in the partitioning evaluations documented in the *Conceptual Remedial Design/Remedial Action Work Plan for Reach 5A*.

log-transformed basis. On a log-transformed scale, the intercept of the regression corresponds to the K_{OC}, while the slope of the regression is fixed at one. To reduce uncertainty, only detected PCB congener concentrations were included in the regression analysis. A regression was prepared using the entire baseline vernal pool dataset, and separate regressions were prepared using data from each individual vernal pool to evaluate potential spatial differences in partitioning.

The regression analyses for all vernal pools combined are shown on Figure 3-1, and the calculated log K_{OC} values for each vernal pool and all vernal pools combined are presented in Table 3-1. The regression appears to show significantly greater variability in the calculated log K_{OC} values than was previously observed in partition coefficients calculated from sediment data collected within the river channel during the Reach 5A PDI (presented in the Reach 5A Conceptual Work Plan); however, the standard error values of both regressions are low (0.07 and 0.1 log L/kg, respectively). The regression shown on Figure 3-1 is plotted over a narrow range of soil and porewater concentrations (1 to 2 orders of magnitude) increasing the appearance of variability. However, the overall log K_{OC} value of 6.4 for all vernal pools combined is close to the value calculated previously for in-river sediments during the PDI and reported in the Reach 5A Conceptual Work Plan (i.e., 6.2), as well as the Reach 5 partition coefficient values presented in GE's 2003 *RCRA Facility Investigation Report* (BBL and QEA 2003) and the log K_{OC} value of 6.5 used in EPA's fate and transport modeling presented in the *Final Model Documentation Report* (EPA 2006).

Table 3-1
Summary of Calculated Total PCB Partition Coefficients

Average Log K_{OC} (L/kg)					
VP9	**VP12**	**VP15**	**VP22**	**VP27**	**Overall**
6.2	6.7	6.6	6.3	5.9	6.4

There were no observed spatial differences in the partition coefficient (K_{OC}) values across the vernal pools, and the values were relatively consistent and within the degree of variation typically encountered (i.e., 0.5 log units). Figure 3-2 presents a box plot of the distribution of log K_{OC} values by vernal pool and does not show any apparent spatial trend. For example, the range of log K_{OC} values in vernal pools located in the northern portion of Reach 5A (VP9, VP12, and VP15) is generally similar to the range of log K_{OC} values in vernal pools located in the more southern portion of Reach 5A (VP22 and VP27). The overall K_{OC} value of 6.4 (shown in Table 3-1) using data collected from all five amendment pools has been used as the partitioning coefficient to support calculation of the porewater-based performance criterion (described in Section 2.2 of the Final Pilot Work Plan).

4 Baseline Ecological Monitoring

All potential vernal pools within Reach 5A were investigated in 2018-2019 to determine whether the biological and physical criteria specified by the Massachusetts Natural Heritage and Endangered Species Program for certification as vernal pools were met. Specifically, the data collected included observations of vernal pool obligate, facultative, and other species (if any), as well as presence of fish, habitat class, waterbody permanence, presence of a permanently flowing outlet, and evidence regarding an established fish population. Historical data collected in the early 2000s (Woodlot 2002) were also reviewed as part of this assessment. Those activities resulted in the certification of 59 vernal pools in Reach 5A. As noted in Section 1.2, additional monitoring was performed in 2023 and 2024 in the 17 pools selected for the pilot study (10 test pools and seven control pools) to characterize baseline ecological conditions in those pools prior to implementation of the pilot study. The remainder of this section provides a summary of the data collected, survey methods, and results of field investigations. Representative photographs of each pool's physical and biological components are provided in Attachment D.

4.1 Methods

This section describes the methods used for the baseline ecological monitoring performed in 2023 and 2024 in the 17 vernal pools selected for inclusion in the pilot study. Data collected in those pools during these surveys included an assessment of plant natural communities, pool bathymetry and hydroperiod, baseline soil and water quality parameters, and field surveys to determine breeding effort by obligate vernal pool amphibians, and to assess recruitment into the local populations. A summary of the data collection methods is provided below. A more detailed description of survey methods used in the baseline ecological monitoring, including the procedure for egg mass counts and dip net surveys, is provided in the Vernal Pool Habitat Inventory Standard Operating Procedure provided in Attachment E, which was followed for those surveys.

- Surveys of amphibian egg mass counts and fairy shrimp presence prior to treatment were conducted within each pool during spring 2023 and 2024. These data were collected as early as possible during the vernal pool breeding season, considering seasonal trends documented to be occurring in the specific year of the survey. The egg mass and fairy shrimp counts occurred between early April and late May of each year. These included, in each year, two rounds of egg mass counts in each pool encompassing the entire egg-deposition period for both wood frogs (*Lithobates sylvaticus*) and spotted salamanders (*Ambystoma maculatum*). The surveys were spaced out over approximately three weeks during the early portion of the breeding season.
- Dip net surveys were conducted in 2024 to monitor amphibian larval development, assess amphibian recruitment into the local population, and assess aquatic macroinvertebrate

community structure within each pool. The dip net surveys for amphibian larvae and macroinvertebrates were spaced out through the egg-deposition and larval development periods until the pool was observed dry or evidence of fully metamorphosized amphibians were documented emerging from the pool. This resulted in two rounds of dipnet sweeps that were conducted in conjunction with the 2024 egg mass surveys, plus two additional site visits in late May and June of 2024.

- A survey of the plant community within each pilot pool was conducted during July and August of 2024 using line-intercept sampling techniques, as described by Barbour et al. (1999). This method provides a quantitative measure of species-specific plant cover within each pool and allows for an assessment of plant community composition, canopy cover, plant vigor/health, and presence of invasive plant species. In addition, each pool was visited up to three times throughout the growing season to obtain a thorough list of all plant species present in the pool in addition to those species identified in the transects.
- During the plant community surveys, length and average width of all coarse woody debris and a percent cover estimate of fine woody debris within each pool were measured.
- Detailed topographic data were collected through use of traditional topographic survey methods. The topographic data were collected during fall 2024 and winter 2024/2025.
- Baseline data were collected on hydroperiod and maximum flooding depths, including an assessment of surface water flooding conveyance into and out of each pool. These hydrologic data were collected during spring high-water periods (e.g., April and May) in each of 2023 and 2024, with follow-up visits throughout the summer until each pool was observed dry to document pool hydroperiod. An understanding of pool hydroperiod is needed to assess the functionality of each pool as suitable vernal pool breeding habitat.
- Soil profile descriptions were developed, including an assessment of the underlying substrate to a depth of three to four feet (including the surface leaf-layer and organic duff layer) to understand the soil or substrate stratigraphy and the relative influence of groundwater versus surface water on the hydrology in the pools.
- Soil samples were collected and tested for basic soil chemistry and composition parameters in the vernal pools—specifically, pH, OC content, moisture content, and grain size distribution. These soil samples were collected coincident with the vegetation survey performed during summer 2024.
- Data on baseline surface water quality were collected, including measurements of pH, temperature, conductivity, alkalinity, hardness, turbidity, and dissolved oxygen. These data were collected in 2023, 2024, and 2025.

- An assessment was conducted of habitat characteristics within the vernal pool envelope and critical terrestrial habitats surrounding each vernal pool, as described by Calhoun and Klemens (2002)—i.e., within 0 to 100 feet and 100 to 750 feet of the pool boundary, respectively. Any potential for vernal pool networking was also assessed.

4.2 Results

4.2.1 Amphibian Breeding Surveys and Dip Net Sweeps

Egg mass surveys to document breeding activity by obligate vernal pool amphibians and dip net sweeps for the presence of fairy shrimp have been conducted in the pilot pools during several different time periods. Data on breeding activity were collected historically (in the early 2000s) in seven of the pilot study pools, all 17 pools were surveyed in 2018, 13 pools were surveyed in 2019, 16 pools were surveyed in 2023, and all 17 were surveyed again in 2024. Results from all surveys are presented in Table 4-1, including observations of facultative vernal pool species, other species, and fish presence or absence.

All of the pilot study pools exhibited breeding activity by obligate vernal pool amphibians and/or presence of fairy shrimp during at least one of the five survey periods. Breeding activity by obligate amphibians was documented in four pools in two to three years, nine pools in four years, and three pools in five years. Among the 17 pools, wood frog egg masses were present 38 times over the five survey periods with counts ranging from 1 to 300 egg masses per pool (with an average of 47). A total of 13 pools contained fairy shrimp during at least one survey period; these typically co-occurred with other obligate vernal pool breeding amphibians (e.g., wood frogs). Only one pool (5A-VP-27) included observations of fairy shrimp alone, with no obligate vernal pool breeding amphibians. Spotted salamander egg masses were observed in only four pools over the five survey periods, and no more than two egg masses were observed at one time.

The only facultative vernal pool breeding amphibians observed in the pilot study pools were spring peepers (*Pseudacris crucifer*) and gray treefrogs (*Dryophytes versicolor*), which were observed in six and four pools, respectively. Green frogs (*Lithobates clamitans*) were also frequently observed in the pilot study pools (13 pools), and green frog larvae were also observed in nine of those pools. Adult northern leopard frogs (*Lithobates pipiens*) were also observed in four of the pools. Only two pools (5A-VP-5 and 5A-VP-22) were observed to have fish present.

Dip net sweeps conducted in 2024 identified 11 different aquatic insects plus amphibious snails, fingernail clams, spiders, and daphnia, as shown in Table 4-2. The most frequently encountered insects included aquatic stages of mayfly, damselfly, and caddisfly. Amphipods and amphibious snails were also observed with relatively high frequency.

During dip net surveys conducted in 2024, wood frog tadpoles were measured to assess growth and development during their pre-metamorphosis larval stages within the vernal pools. The results are presented in Table 4-3. A total of 122 tadpoles were obtained from eight of the pilot study pools. Measurements of tadpole total length ranged from 14 to 30 millimeters (mm) (with an average of 22.4 mm) during the first round of measurements in early May and ranged from 27 to 52 mm (with an average of 39.7 mm) during the second round of measurements in late May. Tadpole development in early May generally coincided with Gosner (1960) stages 26-35 (hind limb bud development), and late May coincided with Gosner stages 36-39 (hind limb elongation and toe development).

Average tadpole length was similar among the amendment and control pools during the early and late May inspections in 2024 (Table 4-3). No tadpoles were captured in two of the removal pools during the late May inspection that were still flooded, and three pools were dry. By the mid-June surveys, tadpoles were in early stages of tail atrophy and exhibited complete hindlimb and forelimb development (Gosner stages 40-42). By this time, 11 of the 17 pools were completely dry.

4.2.2 Pool Vegetation

A total of 138 plant species were identified within the 17 pilot study pools, as listed in Table 4-4. These included 19 species of trees, 19 shrub species, 95 herbaceous plant species (including forbs, ferns, grasses, and grasslike species), and five woody vine species. On average, there were approximately 22 species observed in the amendment pools (ranging from 10 to 34), 27 species observed in the removal pools (ranging from 14 to 43), and 34 species observed in the control pools (ranging from 16 to 58). Most plant species observed within the pools (81.2%) are commonly associated with wetland habitats and have an indicator status of facultative (18.1%), facultative wetland (25.4%), or obligate (37.7%). A total of 22 (15.9%) plants were facultative upland species or did not have an indicator status (2.9%).

The most frequently occurring plant species within the pilot pools was moneywort (*Lysimachia nummularia*), which was observed in all 17 pools. Other species frequently observed included silver maple (*Acer saccharinum*), silky dogwood (*Swida amomum*), sensitive fern (*Onoclea sensibilis*), jewelweed (*Impatiens capensis*), and riverbank grape (*Vitis riparia*), all occurring in 14 to 16 pools.

Plant cover data based on the line-intercept transects are presented in Table 4-5. Based on these data, the absolute cover of vegetation within each pilot pool was 100%. However, when accounting for overlap from tree, shrub, and herbaceous layers, the relative cover of vegetation exceeded 100% in each pilot pool. Similarly, in some cases, overlap from different species within one vegetation layer also resulted in vegetation cover of greater than 100%. Most pools exhibited a well-developed herbaceous layer, with cover ranging from approximately 17% to 100% cover (average of 67%) in 10 pools and greater than 100% cover in seven pools. Average cover of herbaceous plants among all

pools was 89%. Shrub cover ranged from 5% to 90% (average of 32%) among all 17 pools, and tree cover ranged from 6% to 97% cover (average of 51%) in 13 pools with four pools exhibiting greater than 100% tree cover. Cover of woody vines including riverbank grape and Virginia creeper (*Parthenocissus quinquefolia*) ranged from approximately 0% to 12% (average of 4%) with no woody vines observed in five pools. Plant species cover data are presented in Table 4-6.

The average cover of trees, shrubs, herbs, and woody vines was similar among the test and control pools. Among the amendment, removal, and control pools, average tree cover was 57.9%, 60.9%, and 80.5%, respectively; shrub cover was 30.6%, 28.1%, and 36.7%; herb cover was 93.6%, 93.6%, and 83.2%; and woody vine cover was 2.5%, 4.4%, and 4.7%.

All 17 pilot study pools had some invasive plant species listed by: (1) the Massachusetts Invasive Plant Advisory Group as "invasive" or "likely invasive" (MIPAG 2005); (2) the U.S. Army Corps of Engineers New England District in its focused list of invasive species to be controlled at wetland mitigation sites; and/or (3) the Invasive Plant Atlas of New England (IPANE 2007). These plants, including the source of their status as invasive, are identified in Tables 4-4 and 4-6. A total of 14 such invasive species, including eight herbaceous plants, five shrubs, and one woody vine, were observed in the pools. The invasive plant species coverage and number of invasive species for each pool are shown in Table 4-7. The total number of invasive species per pool ranged from one to seven (average of 4.8). The amendment pools and removal pools had an average of four and 5.2 invasive plants per pool, respectively. The control pools had an average of five invasive plants per pool.

One invasive plant (moneywort [*Lysimachia nummularia*]) was observed in all 17 pilot study pools. Two additional species were observed in more than 10 pools and included purple loosestrife (*Lythrum salicaria*) and pale-yellow iris (*Iris pseudacorus*). Based on the line-intercept transect data, the minimum cover of invasive plants ranged from 0.1% to 34.4% (mean 5.4%), and the maximum cover ranged from 14.1% to 97.2% (average of 44.6%) among the 17 pools. Average cover of invasive species per pool ranged from 6.6% to 55.5% (Table 4-7). Invasive species with the highest percent cover on average included reed canary grass (*Phalaris arundinacea*), common buckthorn (*Rhamnus cathartica*), and moneywort. Eight additional invasive plants averaged 0.2% to 6.3% cover. The invasive plant species cover data are summarized per species in Table 4-8.

4.2.3 Pool Geomorphology, Hydroperiod, and Physical Habitat Structure

The pilot study pools can generally be described as relatively small, shallow, and flat-bottomed pools with one or two depressional areas that hold water for extended periods. The geomorphology, physical habitat structure, and hydrology of these pools are summarized in Table 4-9. The pools range in size from approximately 0.04 to 1.65 acres (average of 0.38 acres), with most pools (14 of 17) being less than half an acre. Six pools have a defined outlet channel to the river while other pools more broadly outlet across the floodplain during periods of extreme high water (e.g., early spring

floods) and/or are contiguous within a larger wetland complex. No pools were documented to have a permanently flowing outlet.

The pilot study pools were inspected during spring 2023 to map the relative shape of each basin by measuring water depths along transects within each pool. Except for one flooding event near the end of April 2023, water levels were generally low for most of this survey period. Maximum depths ranged from six to 37 inches (average of 18.8 inches), with the exception of one pool that was dry during the survey period (5A-VP-27). The average maximum water depths in the amendment, removal, and control pools were 21.3, 21.4, and 15.4 inches, respectively.

Maximum water depths observed within the pilot study pools were also recorded in 2024 during an early spring flooding event. At that time, the maximum recorded water depth in several pools was greater than the basin's estimated water holding capacity; in these cases, the pool basins were overtopped at one or more locations and were hydrologically connected via surface water flow to other low-lying areas in the floodplain outside of the pool basin. By comparison, measurements of water depth taken over several years indicate that spring water depths are typically much less and range from approximately four to 24 inches deep on average.

Pool hydroperiod (i.e., duration of flooding within the pool basin) is relatively short for many pools as a result of their geomorphology, shallow depth, and direct connection to the river through well-defined drainage channels. The hydroperiods in the pilot study pools in 2024 are shown on Figure 4-1. In that year, eight of the 17 pilot study pools were dry before the end of May, three dried in June, and four dried in July. Two pools were never observed dry in 2024; however, water depths were as low as six to 12 inches.

Within each pilot pool, total length and average diameter of all coarse woody debris (CWD), defined as woody tree trunks and branches on the ground surface greater than four inches in diameter on average, were recorded, and their coverage is presented as a percentage of total pool area in Table 4-9. CWD was observed in 15 of the 17 pools and ranged from 0.3% to 5% of the total pool area (1.3% on average). The amendment, removal, and control pools contained 0.7%, 1.6%, and 1.1% cover of CWD, respectively. The total square footage of CWD ranged from 21 to 505 square feet and averaged 172 square feet.

Total cover of fine woody debris (FWD) was visually estimated within each pool. Cover of FWD was estimated at 1% to 5% within eight pools, 6% to 15% in four pools, and 16% to 25% in five pools. Wind-thrown trees and/or root wads were present in only six pools, and hummocks formed by sedges, grasses, or woody shrubs were present in only five pools and typically accounted for less than 6% to 15% of the total pool area.

Soils within each of the pilot study pools were inspected to a depth of approximately 30 to 40 inches below the ground surface. The soil characteristics of the pilot study pools are summarized in Table 4-10. More than half of the pools (11 of 17) exhibited an organic or mucky-mineral soil at the surface that ranged from two to 32 inches thick (10 inches on average) and were underlain by silt loam or very fine to fine sandy loam. In five pools, a loamy sand to coarse loamy sand texture was encountered at depths typically below 24 inches.

Soil samples were collected from all test pools and from five of the control pools and were analyzed for percent moisture, percent solids, pH, and TOC. Soils samples were analyzed as a composite of the top eight inches of soil collected from three discrete locations within each pool. The results are summarized in Table 4-11. Soil pH ranged from 5.7 to 6.5 (average of 6.1), and TOC ranged from 15,000 to 61,000 mg/kg (average of 37,600 mg/kg). On average, soil pH was similar across the amendment, removal, and control pools (6.2, 6.0, and 6.1, respectively). However, some variability in average TOC was observed among these pools (43,600, 38,000, and 31,200 mg/kg, respectively).

Water quality parameters including temperature, dissolved oxygen, specific conductivity, and pH were measured at least twice, and up to three times in six of the pools, in 2023 through 2025. In spring 2025, each pilot pool was revisited to collect data on oxidation-reduction potential, turbidity, alkalinity, and hardness. The results are summarized in Table 4-12. While some variability was observed in these parameters across the various test and control pools, the differences, on average, were minimal.

4.2.4 Habitat Characteristics in Adjacent Landscape

Table 4-13 presents information regarding the land use conditions surrounding the pilot study pools. This includes the percent of total area within the vernal pool envelope (i.e., the area within 100 feet of the pool edge) and critical terrestrial habitats (i.e., 100 to 750 feet from the pool edge) that is composed of forest, scrub/shrub habitat, other open space, and developed land. Using publicly available data from MassGIS on land use and land cover (from 2016), Figure 4-2 presents a more detailed breakdown of the cover types adjacent to each pilot study pool.

As shown in Table 4-13, the vernal pool envelope around these pools is composed primarily of forest, scrub-shrub, and other open space habitats (over 99% on average), with little or no development in that envelope. Only two pools have more than 5% of the vernal pool envelope developed. Specifically, 5A-VP-4 is within 100 feet of a residential lawn, and 5A-VP-21 is within 100 feet of Holmes Road.

Extending further out into the adjacent landscape, the critical terrestrial habitats are only slightly more developed. Approximately 87% of that total area on average (ranging from 71% to 99%) is composed of forest, scrub-shrub, and other open space habitats. Within that zone, seven pools have

less than 10% development, nine have 10% to 25% development, and one pool (5A-VP-16) has approximately 29% development.

On average, each pilot study pool has 7.2 other vernal pools within 1,000 feet, ranging from four to 11 pools within that distance (Table 4-13). The largest cluster of pools is located upstream of Pomeroy Avenue, with 20 pools located within approximately 57 acres of contiguous floodplain habitats. The remaining vernal pools are distributed throughout the Reach 5A floodplain habitats downstream of Holmes Road, with 32 pools along the western side of the Housatonic River, and seven pools located on the eastern side of the river (two in Canoe Meadows, three west and south of Joseph Drive, and two at the southern end of Reach 5A).

5 References

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Tables

Table 4-1
Data Collected in 2018–2024 on Vernal Pool Inspections in Pilot Study Pools

Survey Period	Obligate Species[2]	Facultative Species	Other Species	Fish P/A
5A-VP-9				
Historical Data[1]	WF, FS	SP	ST, PT, NLF, GF	A
2018	WF (1), WF (Adult), FS, WF Chorus			A
2019	WF (30)			A
2023	WF Larvae (5), FS		GF Adult	A
2024	None			A
5A-VP-12				
Historical Data	Not Surveyed			
2018	WF (23)			A
2019	WF (2), SS (1)		ST, GF Larvae, GF Adult	A
2023	WF Larvae (>1000), WF Adult (5)		GF Adult	A
2024	WF Larvae (>100), SS (1)	SP Larvae	GF Larvae	A
5A-VP-15				
Historical Data	Not Surveyed			
2018	WF (20-25), FS			A
2019	WF Larvae		GF Larvae	A
2023	WF Larvae (30), WF Adult			A
2024	WF (105), WF Larvae		GF Adult	A
5A-VP-22				
Historical Data	WF, FS	SP	GF, NLF	A
2018	WF (170), FS			A
2019	WF (4)	GTF (calling) SP (calling)		A
2023	WF Larvae (>1000), FS		ST	A
2024	WF (30), WF Larvae		GF Adult	P
5A-VP-27				
Historical Data	Not Surveyed			
2018	FS			A
2019	FS			A
2023	Pool Dry			A
2024	FS			A
5A-VP-4				
Historical Data	WF, FS			A
2018	WF (2), FS			A
2019	WF (10)			A
2023	WF larvae (>100), WF (1), FS			A
2024	WF (26), WF Larvae (>100)			A

Table 4-1
Data Collected in 2018–2024 on Vernal Pool Inspections in Pilot Study Pools

Survey Period	Obligate Species[2]	Facultative Species	Other Species	Fish P/A
5A-VP-7				
Historical Data	WF		GF	A
2018	WF (35-40), FS, WF Chorus			A
2019	SS (2), WF (50+)			A
2023	WF Larvae (40)			A
2024	WF (17), WF Larvae, SS (5)		GF Adult	A
5A-VP-16				
Historical Data	Not Surveyed			
2018	FS			A
2019	WF (25)			A
2023	WF Larvae (>100)		GF	A
2024	WF (4), WF Larvae		GF Larvae, GF Adults	A
5A-VP-52				
Historical Data	Not Surveyed			
2018	None	SP, GTF	NLF, GF	A
2019	WF (1), WF larvae			A
2023	WF Larvae (2)		GF	A
2024	None		GF Larvae, GF Adult	A
5A-VP-57				
Historical Data	Not Surveyed			
2018	None	SP, GTF	ST	A
2019	WF (20), WF Larvae			A
2023	None			A
2024	None			A
5A-VP-3				
Historical Data	Not Surveyed			
2018	WF (Adult)		GF Adult	A
2019	WF Larvae			A
2023	WF (1), WF Chorus, FS		GF Adult	A
2024	WF (11)			A
5A-VP-5				
Historical Data	SS, WF,FS			A
2018	WF (250-300), FS			A
2019	Not Surveyed			
2023	WF Larvae (>100), WF (18), FS		ST	A
2024	WF (125) WF Larvae		GF Larvae	P

Table 4-1
Data Collected in 2018–2024 on Vernal Pool Inspections in Pilot Study Pools

Survey Period	Obligate Species[2]	Facultative Species	Other Species	Fish P/A
5A-VP-10				
Historical Data	Not Surveyed			
2018	WF (15-20), FS			A
2019	WF (> 100)			A
2023	SS (1)			A
2024	WF (54), WF Larvae			A
5A-VP-21				
Historical Data	SS, WF, FS	SP	RSN, NLF, PF, GF	A
2018	WF (250-300), FS	SP		A
2019	Not Surveyed			
2023	WF Larvae (>100), WF (42)			A
2024	SS (1)		GF Larvae, GF Adults	P (Dead)
5A-VP-26				
Historical Data	Not Surveyed			
2018	FS			A
2019	Not Surveyed			
2023	WF (5), WF Larvae (20), WF Adult, FS			A
2024	WF (2)		GF Larvae	A
5A-VP-55				
Historical Data	Not Surveyed			
2018	WF (2)	SP, GTF	GF	A
2019	WF (1), WF Larvae	SP larvae	GF (larvae)	A
2023	Not Surveyed			
2024	None	SP Larvae	GF Larvae (>100)	A
5A-VP-61				
Historical Data	FS, WF		GF	A
2018	WF (70), FS			A
2019	Not Surveyed			
2023	WF Larvae (>1000)			A
2024	WF (120), WF Larvae		GF Larvae, GF Adults	A

Notes:

1. Historical data originally presented by Woodlot (2002).
2. Species abbreviations (see table below)

Table 4-1
Data Collected in 2018–2024 on Vernal Pool Inspections in Pilot Study Pools

Code	Meaning	Code	Meaning
Obligate Species		***Other Species***	
WF	Wood Frog	GF	Green Frog
SS	Spotted Salamander	NLF	Northern Leopard Frog
JS	Jefferson Salamander	PF	Pickerel Frog
FS	Fairy Shrimp	PT	Painted Turtle
Facultative Species		RSN	Red Spotted Newt
AT	American Toad	ST	Snapping Turtle
GTF	Gray Tree Frog	WT	Wood Turtle
SP	Spring Peeper		

Table 4-2
Aquatic Insects Identified in Vernal Pool Dip Net Sweeps in 2024

Class	Order	Family	Common Name	Vernal Pool ID																
				Amendment					Excavate/Restore					Control						
				5A-VP-9	5A-VP-12	5A-VP-15	5A-VP-22	5A-VP-27	5A-VP-4	5A-VP-7	5A-VP-16	5A-VP-52	5A-VP-57	5A-VP-3	5A-VP-5	5A-VP-10	5A-VP-21	5A-VP-26	5A-VP-55	5A-VP-61
Gastropoda			Amphibious Snails			✓	✓	▪	✓			✓			✓	▪	✓		✓	
Malacostraca	Amphipoda		Amphipods		✓	✓	✓	▪	✓			✓			✓	✓	✓		✓	✓
Insecta	Trichoptera	Limnephilidae	Caddisfly				✓									✓	✓	✓	✓	✓
Insecta	Diptera	Chironomidae	Chironomids																	✓
Insecta	Hemiptera	Notonectidae	Common backswimmer		✓												✓	✓		
Insecta	Odonata		Damselfly		✓	✓	✓					✓			✓		✓		✓	
Insecta	Odonata		Dragonfly		✓	✓	✓												✓	
Bivalvia	Sphaeriida	Sphaeriidae	Fingernail clam						✓			✓		✓	✓	▪	✓		✓	
Insecta	Ephemeroptera		Mayfly	✓	✓		✓		✓	✓	✓	✓			✓	✓			✓	✓
Insecta	Coleoptera	Dytiscidae	Predaceous diving beetle				✓			✓	✓									
Arachnida	Araneae		Spiders																	
Insecta	Hemiptera	Belostomatidae	Toe biter			✓									✓		✓		✓	
Insecta	Hemiptera	Corixidae	Water boatman			✓	✓								✓		✓			
Branchiopoda	Anomopoda	Daphniidae	Water fleas				✓													
Insecta	Hemiptera	Gerridae	Water strider														✓			
Insecta	Coleoptera	Gyrinidae	Whirligig beetle														✓			

Table 4-3
Data on Tadpole Length among Pilot Study Pools in 2024

	Minimum	Maximum	Average	Count	Standard Error
	Period 1 (Early May)				
Amendment	16	28	23.41	34	0.50
Excavate/Restore	14	23	19.25	8	1.21
Control	14	30	22.13	30	0.88
All	*14*	*30*	*22.42*	*72*	*0.48*
	Period 2 (Late May)				
Amendment	32	52	40.26	23	1.00
Excavate/Restore	Dry pools and/or no tadpoles observed				
Control	27	50	39.22	27	1.41
All	*27*	*52*	*39.70*	*50*	*0.88*

Table 4-4
Plant Species Identified in Pilot Study Pools

	Scientific Name	Common Name	Mature Growth Form[3]	Pilot Pools																		Wetland Indicator Status[1]	Invasive Status[2]
				Amendment					Excavate / Restore					Control									
				5A-VP-9	5A-VP-12	5A-VP-15	5A-VP-22	5A-VP-27	5A-VP-4	5A-VP-7	5A-VP-16	5A-VP-52	5A-VP-57	5A-VP-3	5A-VP-5	5A-VP-10	5A-VP-21	5A-VP-26	5A-VP-55	5A-VP-61		
1	*Acer negundo*	Box Elder	T	✓	✓				✓	✓		✓		✓		✓	✓		✓		FAC	
2	*Acer rubrum*	Red Maple	T	✓		✓			✓				✓	✓	✓	✓	✓	✓		✓	FAC	
3	*Acer saccharinum*	Silver Maple	T		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	FACW	
4	*Acer saccharum*	Sugar Maple	T														✓			✓	FACU	
5	*Acorus calamus*	Single-Vein Sweetflag	F														✓				OBL	
6	*Aegopodium podagraria*	Bishop's Goutweed	F										✓								FAC	X, I
7	*Agrimonia gryposepala*	Tall Hairy Groovebur	F										✓								FACU	
8	*Alisma subcordatum*	American Water-Plantain	F		✓	✓	✓					✓			✓		✓	✓	✓	✓	OBL	
9	*Alisma triviale*	Northern Water-Plantain	F		✓												✓		✓		OBL	
10	*Alliaria petiolata*	Garlic Mustard	F											✓							FACU	X, I
11	*Alnus incana*	Speckled Alder	S												✓						FACW	
12	*Arisaema triphyllum*	Jack-in-the-Pulpit	F										✓								FAC	
13	*Betula populifolia*	Gray Birch	T												✓						FAC	
14	*Bidens cernua*	Nodding Bur-Marigold	F														✓				OBL	
15	*Bidens frondosa*	Devil's-Pitchfork	F		✓	✓	✓						✓							✓	FACW	
16	*Boehmeria cylindrica*	Small-Spike False Nettle	F						✓			✓		✓							OBL	
17	*Calamagrostis canadensis*	Bluejoint	G				✓												✓		OBL	
18	*Cardamine pensylvanica*	Quaker Bittercress	F																	✓	FACW	
19	*Cardamine pratensis*	Cuckoo Flower	F																✓		NL	
20	*Carex bromoides*	Brome-Like Sedge	G						✓							✓				✓	FACW	
21	*Carex crinita*	Fringed Sedge	G				✓		✓											✓	OBL	
22	*Carex intumescens*	Greater Bladder Sedge	G		✓				✓						✓					✓	FACW	
23	*Carex lacustris*	Lakebank Sedge	G																	✓	OBL	
24	*Carex lupulina*	Hop Sedge	G		✓	✓	✓			✓			✓				✓			✓	OBL	
25	*Carex prasina*	Drooping Sedge	G						✓	✓					✓	✓				✓	OBL	
26	*Carex radiata*	Eastern Star Sedge	G					✓													FAC	

Table 4-4
Plant Species Identified in Pilot Study Pools

	Scientific Name	Common Name	Mature Growth Form[3]	Pilot Pools																	Wetland Indicator Status[1]	Invasive Status[2]
				Amendment					Excavate / Restore					Control								
				5A-VP-9	5A-VP-12	5A-VP-15	5A-VP-22	5A-VP-27	5A-VP-4	5A-VP-7	5A-VP-16	5A-VP-52	5A-VP-57	5A-VP-3	5A-VP-5	5A-VP-10	5A-VP-21	5A-VP-26	5A-VP-55	5A-VP-61		
27	*Carex retrorsa*	Retrorse Sedge	G			✓	✓		✓					✓		✓			✓	✓	OBL	
28	*Carpinus caroliniana*	American Hornbeam	T		✓								✓		✓				✓	✓	FAC	
29	*Carya cordiformis*	Bitternut Hickory	T																	✓	FAC	
30	*Celastrus orbiculatus*	Asian Bittersweet	L															✓			FACU	X, I
31	*Cephalanthus occidentalis*	Common Buttonbush	S				✓										✓			✓	OBL	
32	*Cicuta bulbifera*	Bulblet-Bearing Water-Hemlock	F								✓						✓			✓	OBL	
33	*Cinna arundinacea*	Sweet Wood-Reed	G										✓							✓	FACW	
34	*Cinna latifolia*	Slender Wood-Reed	G				✓						✓							✓	FACW	
35	*Cirsium arvense*	Canada Thistle	F			✓															FACU	
36	*Clematis virginiana*	Virginia Virgin's-Bower	F																✓		FAC	
37	*Crataegus crus-galli*	Cockspur Hawthorn	T			✓				✓								✓			FAC	
38	*Cryptotaenia canadensis*	Canada Honewort	F										✓								FAC	
39	*Cuscuta gronovii*	Common Dodder	F										✓								NA	
40	*Echinocystis lobata*	Wild Cucumber	F		✓							✓	✓								FACW	
41	*Eleocharis acicularis*	Needle Spike-Rush	G		✓	✓									✓		✓				OBL	
42	*Eleocharis palustris*	Common Spike-Rush	G			✓															OBL	
43	*Equisetum fluviatile*	Water Horsetail	P														✓		✓		OBL	
44	*Equisetum hyemale*	Tall Scouring-Rush	P														✓				FAC	
45	*Erechtites hieraciifolius*	American Burnweed	F	✓			✓										✓				FACU	
46	*Euonymus alatus*	Winged Euonymus	S						✓						✓						NL	X, I
47	*Fagus grandifolia*	American Beech	T														✓				FACU	
48	*Fallopia japonica*	Japanese Knotweed	F										✓								FACU	X, I
49	*Frangula alnus*	Glossy Buckthorn	S											✓	✓						FAC	X, I
50	*Fraxinus americana*	White Ash	T										✓							✓	FACU	
51	*Fraxinus pennsylvanica*	Green Ash	T												✓		✓				FACW	
52	*Galium aparine*	Cleavers	F									✓									FACU	

Table 4-4
Plant Species Identified in Pilot Study Pools

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				Amendment					Excavate / Restore					Control								
				5A-VP-9	5A-VP-12	5A-VP-15	5A-VP-22	5A-VP-27	5A-VP-4	5A-VP-7	5A-VP-16	5A-VP-52	5A-VP-57	5A-VP-3	5A-VP-5	5A-VP-10	5A-VP-21	5A-VP-26	5A-VP-55	5A-VP-61		
53	*Galium asprellum*	Rough Bedstraw	F		✓		✓			✓	✓	✓			✓	✓	✓		✓	✓	OBL	
54	*Galium palustre*	Common Marsh Bedstraw	F		✓				✓						✓	✓					OBL	
55	*Galium tinctorium*	Stiff Marsh Bedstraw	F				✓	✓	✓				✓								OBL	
56	*Geum canadense*	White Avens	F										✓		✓						FAC	
57	*Geum laciniatum*	Rough Avens	F										✓		✓	✓					FACW	
58	*Glechoma hederacea*	Ground-Ivy	F										✓								FACU	
59	*Glyceria grandis*	American Manna Grass	G														✓				OBL	
60	*Glyceria striata*	Fowl Manna Grass	G												✓	✓					OBL	
61	*Hamamelis virginiana*	American Witch-Hazel	S												✓	✓				✓	FACU	
62	*Ilex verticillata*	Common Winterberry	S														✓			✓	FACW	
63	*Impatiens capensis*	Jewelweed	F	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	FACW	
64	*Iris pseudacorus*	Pale-Yellow Iris	F	✓	✓	✓	✓			✓		✓	✓	✓			✓		✓	✓	OBL	X, I
65	*Iris versicolor*	Harlequin Blueflag	F		✓	✓	✓						✓				✓			✓	OBL	
66	*Juglans cinerea*	Butternut	T			✓															FACU	
67	*Juncus effusus*	Soft Rush	G												✓						OBL	
68	*Laportea canadensis*	Canada Wood-Nettle	F									✓	✓						✓		FACW	
69	*Leersia oryzoides*	Rice Cut Grass	G		✓	✓											✓				OBL	
70	*Leersia virginica*	White Grass	G		✓																FACW	
71	*Lemna minor*	Common Duckweed	F				P								✓		✓	✓		✓	OBL	
72	*Ligustrum vulgare*	European Privet	S											✓							FACU	
73	*Lonicera morrowii*	Morrow's Honeysuckle	S					✓	✓	✓		✓		✓	✓				✓		FACU	X, I
74	*Ludwigia palustris*	Water-Purslane	F														✓		✓		OBL	
75	*Lycopus uniflorus*	Northern Bugleweed	F		✓	✓						✓	✓				✓	✓			OBL	
76	*Lycopus virginicus*	Virginia Bugleweed	F										✓								OBL	
77	*Lysimachia ciliata*	Fringed Yellow-Loosestrife	F			✓			✓	✓	✓	✓	✓	✓							FACW	
78	*Lysimachia nummularia*	Moneywort	F	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	FACW	X, I

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Plant Species Identified in Pilot Study Pools

	Scientific Name	Common Name	Mature Growth Form[3]	Pilot Pools																		Wetland Indicator Status[1]	Invasive Status[2]
				Amendment					Excavate / Restore					Control									
				5A-VP-9	5A-VP-12	5A-VP-15	5A-VP-22	5A-VP-27	5A-VP-4	5A-VP-7	5A-VP-16	5A-VP-52	5A-VP-57	5A-VP-3	5A-VP-5	5A-VP-10	5A-VP-21	5A-VP-26	5A-VP-55	5A-VP-61		
79	*Lysimachia terrestris*	Swamp Candles	F			✓	✓			✓			✓				✓	✓		✓	OBL	
80	*Lythrum salicaria*	Purple Loosestrife	F		✓	✓	✓			✓	✓	✓			✓		✓	✓	✓		OBL	X, I
81	*Matteuccia struthiopteris*	Ostrich Fern	P							✓			✓						✓		FAC	
82	*Morus alba*	White Mulberry	T											✓							FACU	
83	*Myosotis scorpioides*	True Forget-Me-Not	F		✓	✓			✓		✓	✓	✓				✓		✓		OBL	X, I
84	*Onoclea sensibilis*	Sensitive Fern	P		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	FACW	
85	*Osmunda regalis*	Royal Fern	P						✓												OBL	
86	*Osmundastrum cinnamomeum*	Cinnamon Fern	P		✓				✓						✓		✓			✓	FACW	
87	*Pachysandra terminalis*	Japanese Mountain-Spurge	L					✓													NL	
88	*Parthenocissus quinquefolia*	Virginia Creeper	L											✓							FACU	
89	*Peltandra virginica*	Arrow-Arum	F																✓		OBL	
90	*Penthorum sedoides*	Ditch Stonecrop	F		✓	✓			✓			✓	✓		✓			✓	✓		OBL	
91	*Persicaria amphibia*	Water Smartweed	F														✓				OBL	
92	*Persicaria hydropiper*	Mild Water-Pepper	F		✓		✓					✓									OBL	
93	*Persicaria hydropiperoides*	Swamp Smartweed	F	✓		✓									✓				✓		OBL	
94	*Persicaria pensylvanica*	Pinkweed	F		✓	✓	✓		✓						✓		✓		✓		FACW	
95	*Persicaria sagittata*	Arrow-Leaf Tearthumb	F			✓	✓					✓					✓				OBL	
96	*Persicaria virginiana*	Jumpseed	F				✓	✓	✓		✓	✓	✓	✓			✓			✓	FAC	
97	*Phalaris arundinacea*	Reed Canary Grass	G				✓					✓					✓		✓		FACW	X, I
98	*Pilea pumila*	Canada Clearweed	F								✓		✓	✓					✓		FACW	
99	*Populus deltoides*	Eastern Cottonwood	T				✓			✓				✓		✓					FAC	
100	*Prunus serotina*	Black Cherry	T																	✓	FACU	
101	*Quercus rubra*	Northern Red Oak	T														✓				FACU	
102	*Ranunculus caricetorum*	Swamp Buttercup	F									✓	✓								FAC	
103	*Rhamnus cathartica*	European Buckthorn	S				✓	✓	✓	✓					✓		✓	✓	✓	✓	FAC	X, I
104	*Ribes americanum*	Wild Black Currant	S											✓			✓				FACW	

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				Amendment					Excavate / Restore					Control									
				5A-VP-9	5A-VP-12	5A-VP-15	5A-VP-22	5A-VP-27	5A-VP-4	5A-VP-7	5A-VP-16	5A-VP-52	5A-VP-57	5A-VP-3	5A-VP-5	5A-VP-10	5A-VP-21	5A-VP-26	5A-VP-55	5A-VP-61		
105	*Rosa multiflora*	Multiflora Rose	S			✓		✓	✓	✓				✓	✓			✓			FACU	X, I
106	*Rudbeckia laciniata*	Green-Head Coneflower	F																✓		FACW	
107	*Rumex britannica*	Greater Water Dock	F									✓									OBL	
108	*Rumex obtusifolius*	Bitter Dock	F												✓						FAC	
109	*Sagittaria latifolia*	Duck-Potato	F														✓				OBL	
110	*Salix alba*	White Willow	T										✓	✓			✓		✓		FACW	
111	*Salix bebbiana*	Bebb's Willow	S																✓		FACW	
112	*Salix nigra*	Black Willow	T	✓											✓		✓				OBL	
113	*Salix petiolaris*	Meadow Willow	S														✓		✓		FACW	
114	*Sambucus nigra*	Black Elder	S									✓									FACW	
115	*Schoenoplectus tabernaemontani*	Softstem Bulrush	G				✓														OBL	
116	*Scirpus cyperinus*	Woolgrass	G				✓			✓									✓		OBL	
117	*Scutellaria galericulata*	Hooded Skullcap	F														✓	✓			OBL	
118	*Scutellaria lateriflora*	Mad-Dog Skullcap	F				✓			✓	✓		✓							✓	OBL	
119	*Sicyos angulatus*	One-Seed Bur-Cucumber	F										✓								FACW	
120	*Sium suave*	Hemlock Water-Parsnip	F				✓						✓				✓		✓	✓	OBL	
121	*Solanum carolinense*	Carolina Horse-Nettle	F												✓						FACU	
122	*Solanum dulcamara*	Climbing Nightshade	F												✓		✓				FAC	
123	*Solidago canadensis*	Canada Goldenrod	F										✓								FACU	
124	*Solidago gigantea*	Late Goldenrod	F										✓								FACW	
125	*Sparganium americanum*	American Bur-Reed	F														✓				OBL	
126	*Sparganium eurycarpum*	Broad-Fruit Bur-Reed	F			✓	✓										✓		✓		OBL	
127	*Spiraea alba*	White Meadowsweet	S													✓	✓				FACW	
128	*Swida amomum*	Silky Dogwood	S	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	FACW	
129	*Swida sericea*	Red Osier	S														✓				FACW	
130	*Symplocarpus foetidus*	Skunk Cabbage	F									✓	✓		✓	✓	✓		✓		OBL	

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				Amendment					Excavate / Restore					Control								
				5A-VP-9	5A-VP-12	5A-VP-15	5A-VP-22	5A-VP-27	5A-VP-4	5A-VP-7	5A-VP-16	5A-VP-52	5A-VP-57	5A-VP-3	5A-VP-5	5A-VP-10	5A-VP-21	5A-VP-26	5A-VP-55	5A-VP-61		
131	*Thelypteris palustris*	Marsh Fern	P					✓							✓		✓			✓	FACW	
132	*Toxicodendron radicans*	Eastern Poison Ivy	L																	✓	FAC	
133	*Typha latifolia*	Broad-Leaf Cattail	F											✓							OBL	
134	*Ulmus americana*	American Elm	T			✓			✓					✓	✓	✓	✓			✓	FACW	
135	*Veronica scutellata*	Grass-Leaf Speedwell	F												✓						OBL	
136	*Viburnum dentatum*	Southern Arrow-Wood	S							✓					✓						FAC	
137	*Viburnum lentago*	Nanny-Berry	S														✓				FAC	
138	*Vitis riparia*	River-Bank Grape	L	✓		✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	FAC	

Notes:

1. Wetland Indicator Status: FAC=Facultative; FACW=Facultative Wetland; OBL=Obligate Wetland; UPL=Upland
2. Invasive Status: X=MIPAG; I=USACOE NED
3. Growth Forms: T=Tree; S=Shrub; F=Forb; L=Liana (Vine); G=Graminoid (Grass-Like)

Table 4-5
Plant Strata Cover Data among Pilot Study Pools Based on Line-Intercept Transects

Pool ID	Herbaceous	Shrub	Tree	Vine
Amendment				
5A-VP-12	91.0%	11.0%	57.7%	0.0%
5A-VP-15	146.1%	15.5%	48.2%	3.8%
5A-VP-22	106.7%	28.7%	52.9%	0.6%
5A-VP-27	102.3%	8.3%	97.2%	5.5%
5A-VP-9	22.1%	89.7%	33.4%	2.7%
Average:	*93.6%*	*30.6%*	*57.9%*	*2.5%*
Excavate/Restore				
5A-VP-16	100.5%	41.9%	6.0%	2.1%
5A-VP-4	121.4%	40.7%	66.3%	7.2%
5A-VP-52	121.0%	6.2%	39.0%	0.0%
5A-VP-57	68.7%	5.4%	105.8%	0.0%
5A-VP-7	56.4%	46.5%	87.5%	12.4%
Average:	*93.6%*	*28.1%*	*60.9%*	*4.4%*
Control				
5A-VP-10	16.9%	4.5%	153.4%	0.0%
5A-VP-21	118.0%	66.2%	50.3%	0.0%
5A-VP-26	81.1%	49.9%	46.5%	5.6%
5A-VP-3	83.4%	38.2%	113.8%	7.2%
5A-VP-5	77.6%	61.6%	69.6%	10.4%
5A-VP-55	132.4%	17.3%	7.7%	2.3%
5A-VP-61	72.8%	19.0%	122.0%	7.6%
Average:	*83.2%*	*36.7%*	*80.5%*	*4.7%*

Table 4-6
Plant Species Cover Data among Pilot Study Pools

Pool	Scientific Name	Common Name	Total Percent Cover within Pool Transects	Invasive
Amendment-Based Pools				
5A-VP-9	*Acer negundo*	Ash-Leaf Maple	25.2%	
	Acer rubrum	Red Maple	8.2%	
	Galium palustre	Common Marsh Bedstraw	2.6%	
	Lysimachia nummularia	Creeping-Jenny	17.7%	Invasive[A]
	Onoclea sensibilis	Sensitive Fern	1.7%	
	Salix sp	Willow	5.2%	
	Swida amomum	Silky dogwood	84.4%	
	Vitis riparia	River-Bank Grape	2.7%	
5A-VP-12	*Acer negundo*	Ash-Leaf Maple	6.2%	
	Acer saccharinum	Silver Maple	49.6%	
	Alisma subcordatum	American Water-Plantain	34.4%	
	Bidens frondosa	Devil's-Pitchfork	3.7%	
	Carex lupulina	Hop Sedge	2.3%	
	Carpinus caroliniana	American Hornbeam	1.9%	
	Crataegus crus-galli	Cock-Spur Hawthorn	11.0%	
	Eleocharis sp.	Spike Rush	5.3%	
	Galium palustre	Common Marsh Bedstraw	1.4%	
	Galium sp.	Bedstraw	1.4%	
	Iris pseudacorus	Pale-Yellow Iris	1.9%	
	Leersia oryzoides	Rice Cut Grass	2.6%	
	Lysimachia nummularia	Creeping-Jenny	17.7%	Invasive[A]
	Lythrum salicaria	Purple Loosestrife	0.4%	Invasive[A,B,C]
	Myosotis scorpioides	True Forget-Me-Not	1.8%	Invasive[D]
	Onoclea sensibilis	Sensitive Fern	2.9%	
	Osmundastrum cinnamomeum	Cinnamon Fern	0.8%	
	Penthorum sedoides	Ditch-Stonecrop	1.7%	
	Persicaria hydropiper	Mild Water-Pepper	11.8%	
	Pontederia cordata	Pickerelweed	1.0%	
5A-VP-15	*Acer saccharinum*	Silver Maple	20.6%	
	Alisma subcordatum	American Water-Plantain	0.8%	
	Bidens frondosa	Devil's-Pitchfork	1.5%	
	Carex lupulina	Hop Sedge	2.4%	
	Carex lurida	Shallow Sedge	2.3%	
	Carex sp.	Sedge	1.2%	

Table 4-6
Plant Species Cover Data among Pilot Study Pools

Pool	Scientific Name	Common Name	Total Percent Cover within Pool Transects	Invasive
	Cicuta bulbifera	Bulblet-Bearing Water-Hemlock	0.8%	
	Cirsium arvense	Canada Thistle	1.0%	
	Crataegus crus-galli	Cock-Spur Hawthorn	7.1%	
	Eleocharis sp.	Spike Rush	9.9%	
	Geum sp.	Avens	0.7%	
	Iris pseudacorus	Pale-Yellow Iris	2.8%	
	Juglans cinerea	White Walnut	7.1%	
	Leersia oryzoides	Rice Cut Grass	1.4%	
	Lysimachia ciliata	Fringed Yellow-Loosestrife	1.0%	
	Lysimachia nummularia	Creeping-Jenny	49.0%	Invasive[A]
	Lysimachia terrestris	Swampcandles	1.2%	
	Lythrum salicaria	Purple Loosestrife	8.8%	Invasive[A,B,C]
	Myosotis scorpioides	True Forget-Me-Not	9.5%	Invasive[D]
	Onoclea sensibilis	Sensitive Fern	10.1%	
	Penthorum sedoides	Ditch-Stonecrop	4.0%	
	Persicaria hydropiperoides	Swamp Smartweed	19.1%	
	Persicaria sagittata	Arrow-Leaf Tearthumb	1.6%	
	Populus deltoides	Eastern Cottonwood	7.6%	
	Rosa multiflora	Rambler Rose	1.1%	Invasive[A,B,C]
	Sparganium sp.	Bur-reed	2.2%	
	Swida amomum	Silky dogwood	7.3%	
	Ulmus americana	American Elm	12.9%	
	Vitis riparia	River-Bank Grape	3.8%	
	Xanthium strumarium	Rough Cockleburr	14.8%	Non-native
5A-VP-22	*Acer saccharinum*	Silver Maple	34.3%	
	Acer saccharum	Sugar Maple	17.5%	
	Bidens frondosa	Devil's-Pitchfork	2.2%	
	Carex crinita	Fringed Sedge	0.6%	
	Carex lupulina	Hop Sedge	1.5%	
	Carex retrorsa	Retrorse Sedge	0.6%	
	Carex sp.	Sedge	0.1%	
	Cephalanthus occidentalis	Common Buttonbush	3.9%	
	Erechtites hieraciifolius	American Burnweed	2.3%	
	Galium asprellum	Rough Bedstraw	8.4%	
	Impatiens capensis	Spotted Touch-Me-Not	1.2%	

Table 4-6
Plant Species Cover Data among Pilot Study Pools

Pool	Scientific Name	Common Name	Total Percent Cover within Pool Transects	Invasive
	Iris pseudacorus	Pale-Yellow Iris	0.4%	
	Iris versicolor	Harlequin Blueflag	0.1%	
	Lysimachia nummularia	Creeping-Jenny	48.4%	Invasive[A]
	Lysimachia terrestris	Swampcandles	1.1%	
	Onoclea sensibilis	Sensitive Fern	7.5%	
	Persicaria hydropiper	Mild Water-Pepper	2.1%	
	Persicaria pensylvanica	Pinkweed	0.7%	
	Persicaria sagittata	Arrow-Leaf Tearthumb	0.4%	
	Persicaria virginiana	Jumpseed	0.2%	
	Phalaris arundinacea	Reed Canary Grass	25.1%	Invasive[A,B,C]
	Prunus virginiana	Choke Cherry	1.0%	
	Rhamnus cathartica	European Buckthorn	2.0%	Invasive[A,B,C]
	Schoenoplectus tabernaemontani	Soft-Stem Club-Rush	0.2%	
	Scirpus cyperinus	Cottongrass Bulrush	1.0%	
	Sium suave	Hemlock Water-Parsnip	0.1%	
	Sparganium eurycarpum	Broad-Fruit Burr-Reed	2.7%	
	Swida amomum	Silky dogwood	22.9%	
	Vitis riparia	River-Bank Grape	0.6%	
5A-VP-27	*Impatiens capensis*	Spotted Touch-Me-Not	0.2%	
	Lonicera morrowii	Morrow's Honeysuckle	8.3%	Invasive[A,B]
	Lysimachia nummularia	Creeping-Jenny	61.1%	Invasive[A]
	Onoclea sensibilis	Sensitive Fern	9.4%	
	Pachysandra terminalis	Japanese Mountain-Spurge	21.8%	Non-native
	Persicaria virginiana	Jumpseed	9.8%	
	Rhamnus cathartica	European Buckthorn	97.2%	Invasive[A,B,C]
	Vitis riparia	River-Bank Grape	5.5%	
Removal-Based Pools				
5A-VP-4	*Acer negundo*	Ash-Leaf Maple	16.3%	
	Acer rubrum	Red Maple	8.6%	
	Acer saccharum	Sugar Maple	12.5%	
	Carex crinita	Fringed Sedge	0.9%	
	Carex lurida	Shallow Sedge	6.1%	
	Euonymus alatus	Winged Euonymus	1.2%	Invasive[A,B,C]
	Galium palustre	Common Marsh Bedstraw	1.1%	
	Impatiens capensis	Spotted Touch-Me-Not	21.1%	

Table 4-6
Plant Species Cover Data among Pilot Study Pools

Pool	Scientific Name	Common Name	Total Percent Cover within Pool Transects	Invasive
	Lonicera morrowii	Morrow's Honeysuckle	6.1%	Invasive[A,B]
	Lysimachia ciliata	Fringed Yellow-Loosestrife	1.4%	
	Lysimachia nummularia	Creeping-Jenny	77.7%	Invasive[A]
	Onoclea sensibilis	Sensitive Fern	9.8%	
	Osmunda regalis	Royal Fern	1.4%	
	Persicaria pensylvanica	Pinkweed	0.8%	
	Persicaria virginiana	Jumpseed	1.1%	
	Rhamnus cathartica	European Buckthorn	1.2%	Invasive[A,B,C]
	Rosa multiflora	Rambler Rose	2.0%	Invasive[A,B,C]
	Swida amomum	Silky dogwood	30.3%	
	Ulmus americana	American Elm	28.9%	
	Vitis riparia	River-Bank Grape	7.2%	
5A-VP-7	*Acer negundo*	Ash-Leaf Maple	10.8%	
	Acer saccharinum	Silver Maple	48.9%	
	Crataegus crus-galli	Cock-Spur Hawthorn	2.8%	
	Echinocystis lobata	Wild Cucumber	0.4%	
	Galium sp.	Bedstraw	1.7%	
	Impatiens capensis	Spotted Touch-Me-Not	1.8%	
	Lonicera morrowii	Morrow's Honeysuckle	2.1%	Invasive[A,B]
	Lysimachia ciliata	Fringed Yellow-Loosestrife	3.2%	
	Lysimachia nummularia	Creeping-Jenny	38.2%	Invasive[A]
	Lythrum salicaria	Purple Loosestrife	0.9%	Invasive[A,B,C]
	Onoclea sensibilis	Sensitive Fern	3.7%	
	Persicaria sp.	Smartweed	0.7%	
	Populus deltoides	Eastern Cottonwood	27.8%	
	Rhamnus cathartica	European Buckthorn	3.8%	Invasive[A,B,C]
	Rosa multiflora	Rambler Rose	1.1%	Invasive[A,B,C]
	Salix sp.	Willow	4.9%	
	Scirpus cyperinus	Cottongrass Bulrush	2.6%	
	Scutellaria lateriflora	Mad Dog Skullcap	3.3%	
	Swida amomum	Silky dogwood	24.3%	
	Viburnum dentatum	Southern Arrow-Wood	7.4%	
	Vitis riparia	River-Bank Grape	12.4%	
5A-VP-16	*Acer saccharinum*	Silver Maple	6.0%	
	Cicuta maculata	Spotted Water-Hemlock	1.9%	

Table 4-6
Plant Species Cover Data among Pilot Study Pools

Pool	Scientific Name	Common Name	Total Percent Cover within Pool Transects	Invasive
	Crataegus crus-galli	Cock-Spur Hawthorn	20.4%	
	Galium sp.	Bedstraw	3.5%	
	Impatiens capensis	Spotted Touch-Me-Not	0.4%	
	Lysimachia ciliata	Fringed Yellow-Loosestrife	0.8%	
	Lysimachia nummularia	Creeping-Jenny	79.5%	Invasive[A]
	Lythrum salicaria	Purple Loosestrife	1.7%	Invasive[A,B,C]
	Myosotis scorpioides	True Forget-Me-Not	2.4%	Invasive[D]
	Onoclea sensibilis	Sensitive Fern	4.8%	
	Penthorum sedoides	Ditch-Stonecrop	4.4%	
	Persicaria virginiana	Jumpseed	0.6%	
	Pilea pumila	Canadian Clearweed	0.6%	
	Salix sp.	Willow	9.8%	
	Swida amomum	Silky dogwood	11.8%	
	Vitis riparia	River-Bank Grape	2.1%	
5A-VP-52	*Acer negundo*	Ash-Leaf Maple	4.9%	
	Acer saccharinum	Silver Maple	34.1%	
	Boehmeria cylindrica	Small-Spike False Nettle	2.1%	
	Echinocystis lobata	Wild Cucumber	1.2%	
	Galium aparine	Sticky-Willy	0.6%	
	Galium asprellum	Rough Bedstraw	1.6%	
	Impatiens capensis	Spotted Touch-Me-Not	2.3%	
	Iris pseudacorus	Pale-Yellow Iris	1.3%	
	Laportea canadensis	Canadian Wood-Nettle	0.9%	
	Lysimachia ciliata	Fringed Yellow-Loosestrife	1.3%	
	Lysimachia nummularia	Creeping-Jenny	8.0%	Invasive[A]
	Lythrum salicaria	Purple Loosestrife	1.7%	Invasive[A,B,C]
	Myosotis scorpioides	True Forget-Me-Not	3.3%	Invasive[D]
	Persicaria hydropiper	Mild Water-Pepper	1.7%	
	Persicaria sagittata	Arrow-Leaf Tearthumb	2.1%	
	Phalaris arundinacea	Reed Canary Grass	89.7%	Invasive[A,B,C]
	Rudbeckia laciniata	Green-Head Coneflower	1.2%	
	Swida amomum	Silky dogwood	6.2%	
	Symplocarpus foetidus	Skunk-Cabbage	2.0%	
5A-VP-57	*Acer saccharinum*	Silver Maple	95.1%	
	Aegopodium podagraria	Bishop's Goutweed	3.6%	Invasive[A,B]

Table 4-6
Plant Species Cover Data among Pilot Study Pools

Pool	Scientific Name	Common Name	Total Percent Cover within Pool Transects	Invasive
	Bidens frondosa	Devil's-Pitchfork	0.6%	
	Carpinus caroliniana	American Hornbeam	7.9%	
	Cinna arundinacea	Sweet Wood-Reed	0.8%	
	Cryptotaenia canadensis	Canadian Honewort	2.3%	
	Fallopia japonica	Japanese Knotweed	2.1%	Invasive[A,B,C]
	Fraxinus americana	White Ash	2.8%	
	Geum canadense	White Avens	0.3%	
	Glechoma hederacea	Groundivy	4.4%	Non-native
	Impatiens capensis	Spotted Touch-Me-Not	2.7%	
	Laportea canadensis	Canadian Wood-Nettle	14.5%	
	Lycopus virginicus	Virginia Water-Horehound	1.0%	
	Lysimachia nummularia	Creeping-Jenny	15.5%	Invasive[A]
	Lysimachia terrestris	Swampcandles	1.1%	
	Matteuccia struthiopteris	Ostrich Fern	9.8%	
	Onoclea sensibilis	Sensitive Fern	3.6%	
	Persicaria virginiana	Jumpseed	0.3%	
	Pilea pumila	Canadian Clearweed	0.8%	
	Scutellaria lateriflora	Mad Dog Skullcap	0.4%	
	Sicyos angulatus	One-Seed Burr-Cucumber	0.4%	
	Solidago canadensis	Canadian Goldenrod	2.2%	
	Solidago gigantea	Late Goldenrod	0.3%	
	Swida amomum	Silky dogwood	5.4%	
	Viola sororia	Hooded Blue Violet	1.9%	
Control Pools				
5A-VP-3	*Acer negundo*	Ash-Leaf Maple	8.6%	
	Acer saccharinum	Silver Maple	42.7%	
	Acer saccharum	Sugar Maple	2.7%	
	Alliaria petiolata	Garlic-Mustard	0.2%	Invasive[A,B]
	Carex sp.	Sedge	0.4%	
	Impatiens capensis	Spotted Touch-Me-Not	21.7%	
	Ligustrum vulgare	European Privet	1.0%	
	Lonicera morrowii	Morrow's Honeysuckle	11.4%	Invasive[A,B]
	Lysimachia ciliata	Fringed Yellow-Loosestrife	0.4%	
	Lysimachia nummularia	Creeping-Jenny	46.3%	Invasive[A]
	Morus alba	White Mulberry	7.3%	

Table 4-6
Plant Species Cover Data among Pilot Study Pools

Pool	Scientific Name	Common Name	Total Percent Cover within Pool Transects	Invasive
	Onoclea sensibilis	Sensitive Fern	10.0%	
	Parthenocissus quinquefolia	Virginia-Creeper	0.5%	
	Persicaria virginiana	Jumpseed	2.4%	
	Pilea pumila	Canadian Clearweed	0.5%	
	Populus deltoides	Eastern Cottonwood	29.9%	
	Rosa multiflora	Rambler Rose	1.7%	Invasive[A,B,C]
	Solidago sp.	Goldenrod	0.5%	
	Swida amomum	Silky dogwood	25.1%	
	Ulmus americana	American Elm	22.7%	
	Vitis riparia	River-Bank Grape	6.7%	
5A-VP-5	*Acer rubrum*	Red Maple	44.6%	
	Acer saccharinum	Silver Maple	19.7%	
	Alnus incana	Speckled Alder	1.6%	
	Euonymus alatus	Winged Euonymus	0.5%	Invasive[A,B,C]
	Galium palustre	Common Marsh Bedstraw	0.1%	
	Geum canadense	White Avens	0.2%	
	Impatiens capensis	Spotted Touch-Me-Not	0.1%	
	Lysimachia nummularia	Creeping-Jenny	19.7%	Invasive[A]
	Lythrum salicaria	Purple Loosestrife	0.5%	Invasive[A,B,C]
	Onoclea sensibilis	Sensitive Fern	5.2%	
	Penthorum sedoides	Ditch-Stonecrop	1.5%	
	Persicaria hydropiperoides	Swamp Smartweed	34.9%	
	Persicaria hydropiperoides	Swamp Smartweed	10.6%	
	Rhamnus cathartica	European Buckthorn	5.1%	Invasive[A,B,C]
	Rosa multiflora	Rambler Rose	7.1%	Invasive[A,B,C]
	Salix sp.	Willow	11.0%	
	Solanum carolinense	Carolina Horse-Nettle	3.5%	Non-native
	Solanum dulcamara	Climbing Nightshade	0.2%	Non-native
	Swida amomum	Silky dogwood	36.3%	
	Symplocarpus foetidus	Skunk-Cabbage	0.3%	
	Thelypteris palustris	Eastern Marsh Fern	0.2%	
	Ulmus americana	American Elm	5.2%	
	Veronica scutellata	Grass-Leaf Speedwell	0.5%	
	Vitis riparia	River-Bank Grape	10.4%	
5A-VP-10	*Acer negundo*	Ash-Leaf Maple	2.9%	

Table 4-6
Plant Species Cover Data among Pilot Study Pools

Pool	Scientific Name	Common Name	Total Percent Cover within Pool Transects	Invasive
	Acer rubrum	Red Maple	7.2%	
	Acer saccharinum	Silver Maple	81.4%	
	Carex lurida	Shallow Sedge	0.8%	
	Carex sp.	Sedge	0.6%	
	Galium palustre	Common Marsh Bedstraw	0.6%	
	Lysimachia nummularia	Creeping-Jenny	14.1%	Invasive[A]
	Onoclea sensibilis	Sensitive Fern	0.8%	
	Populus deltoides	Eastern Cottonwood	61.4%	
	Spiraea alba	White Meadowsweet	4.5%	
	Ulmus americana	American Elm	0.4%	
5A-VP-21	*Acer rubrum*	Red Maple	11.1%	
	Acer saccharinum	Silver Maple	21.5%	
	Alisma subcordatum	American Water-Plantain	0.3%	
	Bidens frondosa	Devil's-Pitchfork	5.6%	
	Cephalanthus occidentalis	Common Buttonbush	23.3%	
	Cicuta bulbifera	Bulblet-Bearing Water-Hemlock	0.1%	
	Eleocharis acicularis	Needle Spike-Rush	1.0%	
	Equisetum hyemale	Tall Scouring-Rush	0.3%	
	Erechtites hieraciifolius	American Burnweed	0.0%	
	Fagus grandifolia	American Beech	2.5%	
	Fraxinus pennsylvanica	Green Ash	1.2%	
	Galium asprellum	Rough Bedstraw	7.6%	
	Glyceria grandis	American Manna Grass	0.0%	
	Ilex verticillata	Common Winterberry	1.7%	
	Impatiens capensis	Spotted Touch-Me-Not	0.3%	
	Iris pseudacorus	Pale-Yellow Iris	0.2%	
	Leersia oryzoides	Rice Cut Grass	8.5%	
	Lemna minor	Common Duckweed	6.1%	
	Ludwigia palustris	Marsh Primrose-Willow	0.1%	
	Lysimachia nummularia	Creeping-Jenny	27.0%	Invasive[A]
	Lysimachia terrestris	Swampcandles	1.3%	
	Lythrum salicaria	Purple Loosestrife	3.4%	Invasive[A,B,C]
	Myosotis scorpioides	True Forget-Me-Not	4.5%	Invasive[D]
	Onoclea sensibilis	Sensitive Fern	8.7%	
	Osmundastrum cinnamomeum	Cinnamon Fern	0.8%	

Table 4-6
Plant Species Cover Data among Pilot Study Pools

Pool	Scientific Name	Common Name	Total Percent Cover within Pool Transects	Invasive
	Persicaria amphibia	Water Smartweed	12.6%	
	Persicaria sagittata	Arrow-Leaf Tearthumb	0.2%	
	Persicaria virginiana	Jumpseed	0.1%	
	Phalaris arundinacea	Reed Canary Grass	25.6%	Invasive[A,B,C]
	Quercus rubra	Northern Red Oak	8.5%	
	Rhamnus cathartica	European Buckthorn	5.0%	Invasive[A,B,C]
	Ribes americanum	Wild Black Currant	0.3%	
	Sagittaria latifolia	Duck-Potato	1.1%	
	Salix sp.	Willow	2.1%	
	Scutellaria galericulata	Hooded Skullcap	0.1%	
	Sium suave	Hemlock Water-Parsnip	0.1%	
	Solanum dulcamara	Climbing Nightshade	0.2%	Non-native
	Sparganium eurycarpum	Broad-Fruit Burr-Reed	0.3%	
	Sparganium sp.	Bur-reed	0.4%	
	Spiraea alba	White Meadowsweet	3.1%	
	Swida amomum	Silky dogwood	24.9%	
	Symplocarpus foetidus	Skunk-Cabbage	1.1%	
	Thelypteris palustris	Eastern Marsh Fern	0.6%	
	Ulmus americana	American Elm	5.5%	
	Viburnum lentago	Nanny-Berry	5.8%	
5A-VP-26	*Acer rubrum*	Red Maple	46.5%	
	Lycopus uniflorus	Northern Water-Horehound	14.2%	
	Lysimachia nummularia	Creeping-Jenny	23.2%	Invasive[A]
	Lysimachia terrestris	Swampcandles	1.4%	
	Onoclea sensibilis	Sensitive Fern	0.6%	
	Penthorum sedoides	Ditch-Stonecrop	41.0%	
	Rhamnus cathartica	European Buckthorn	25.1%	Invasive[A,B,C]
	Rosa multiflora	Rambler Rose	0.1%	Invasive[A,B,C]
	Scutellaria galericulata	Hooded Skullcap	0.7%	
	Swida amomum	Silky dogwood	24.6%	
	Vitis riparia	River-Bank Grape	5.6%	
5A-VP-55	*Acer negundo*	Ash-Leaf Maple	0.6%	
	Carex retrorsa	Retrorse Sedge	1.0%	
	Carpinus caroliniana	American Hornbeam	7.1%	
	Equisetum fluviatile	Water Horsetail	2.3%	

Table 4-6
Plant Species Cover Data among Pilot Study Pools

Pool	Scientific Name	Common Name	Total Percent Cover within Pool Transects	Invasive
	Galium asprellum	Rough Bedstraw	3.1%	
	Impatiens capensis	Spotted Touch-Me-Not	0.1%	
	Iris pseudacorus	Pale-Yellow Iris	2.6%	
	Lonicera morrowii	Morrow's Honeysuckle	3.6%	Invasive[A,B]
	Ludwigia palustris	Marsh Primrose-Willow	0.6%	
	Lysimachia nummularia	Creeping-Jenny	8.0%	Invasive[A]
	Lythrum salicaria	Purple Loosestrife	13.6%	Invasive[A,B,C]
	Myosotis scorpioides	True Forget-Me-Not	1.8%	Invasive[D]
	Onoclea sensibilis	Sensitive Fern	1.0%	
	Persicaria hydropiperoides	Swamp Smartweed	14.7%	
	Phalaris arundinacea	Reed Canary Grass	60.8%	Invasive[A,B,C]
	Pilea pumila	Canadian Clearweed	1.0%	
	Rudbeckia laciniata	Green-Head Coneflower	0.2%	
	Salix bebbiana	Gray Willow	1.3%	
	Sparganium eurycarpum	Broad-Fruit Burr-Reed	21.6%	
	Swida amomum	Silky dogwood	12.3%	
	Vitis riparia	River-Bank Grape	2.3%	
5A-VP-61	*Acer rubrum*	Red Maple	27.5%	
	Acer saccharinum	Silver Maple	17.0%	
	Acer saccharum	Sugar Maple	22.4%	
	Asteraceae	Daisy	1.1%	
	Bidens frondosa	Devil's-Pitchfork	3.2%	
	Carex crinita	Fringed Sedge	0.9%	
	Carex lupulina	Hop Sedge	21.6%	
	Carex lurida	Shallow Sedge	2.3%	
	Carpinus caroliniana	American Hornbeam	13.8%	
	Cephalanthus occidentalis	Common Buttonbush	6.6%	
	Cicuta bulbifera	Bulblet-Bearing Water-Hemlock	0.7%	
	Cinna arundinacea	Sweet Wood-Reed	1.1%	
	Fraxinus americana	White Ash	39.4%	
	Hamamelis virginiana	American Witch-Hazel	2.6%	
	Ilex verticillata	Common Winterberry	6.1%	
	Impatiens capensis	Spotted Touch-Me-Not	1.5%	
	Iris pseudacorus	Pale-Yellow Iris	1.7%	
	Lysimachia nummularia	Creeping-Jenny	34.4%	Invasive[A]

Table 4-6
Plant Species Cover Data among Pilot Study Pools

Pool	Scientific Name	Common Name	Total Percent Cover within Pool Transects	Invasive
	Onoclea sensibilis	Sensitive Fern	1.9%	
	Osmundastrum cinnamomeum	Cinnamon Fern	0.5%	
	Persicaria virginiana	Jumpseed	0.6%	
	Prunus serotina	Black Cherry	1.5%	
	Scutellaria lateriflora	Mad Dog Skullcap	0.6%	
	Swida amomum	Silky dogwood	3.7%	
	Thelypteris palustris	Eastern Marsh Fern	0.7%	
	Toxicodendron radicans	Eastern Poison Ivy	1.8%	
	Ulmus americana	American Elm	0.3%	
	Vitis riparia	River-Bank Grape	5.8%	

Notes:
A: MIPAG Invasive
B: IPANE Invasive
C: ACOE Invasive
D: MIPAG Likely Invasive

Table 4-7
Invasive Plant Species Cover Data among Pilot Study Pools

Pool ID	Invasive Plant Cover			
	Min	Max	Average	Count of Species
Amendment				
5A-VP-12	0.4%	17.7%	6.6%	4
5A-VP-15	1.1%	49.0%	17.1%	5
5A-VP-22	2.0%	48.4%	25.1%	5
5A-VP-27	8.3%	97.2%	55.5%	4
5A-VP-9	17.7%	17.7%	17.7%	2
Excavate/Restore				
5A-VP-16	1.7%	79.5%	27.9%	3
5A-VP-4	1.2%	77.7%	17.6%	6
5A-VP-52	1.7%	89.7%	25.7%	6
5A-VP-57	2.1%	15.5%	7.1%	5
5A-VP-7	0.9%	38.2%	9.3%	6
Control				
5A-VP-10	14.1%	14.1%	14.1%	1
5A-VP-21	3.4%	27.0%	13.1%	6
5A-VP-26	0.1%	25.1%	16.2%	5
5A-VP-3	0.2%	46.3%	14.9%	6
5A-VP-5	0.5%	19.7%	6.6%	7
5A-VP-55	1.8%	60.8%	17.6%	7
5A-VP-61	34.4%	34.4%	34.4%	3

Table 4-8
Summary of Invasive Plant Species Cover in Pilot Study Pools

Common Name	Scientific Name	Percent Cover among Pools			Average	Standard Error
		Number of Pools	Minimum	Maximum		
Bishop's Goutweed	*Aegopodium podagraria*	1	3.6%	3.6%	3.6%	-
Garlic-Mustard	*Alliaria petiolata*	1	0.2%	0.2%	0.2%	-
Winged Euonymus	*Euonymus alatus*	2	0.5%	1.2%	0.8%	0.004
Japanese Knotweed	*Fallopia japonica*	1	2.1%	2.1%	2.1%	-
Morrow's Honeysuckle	*Lonicera morrowii*	5	2.1%	11.4%	6.3%	0.02
Creeping-Jenny	*Lysimachia nummularia*	17	8.0%	79.5%	34.4%	0.06
Purple Loosestrife	*Lythrum salicaria*	8	0.4%	13.6%	3.9%	0.02
True Forget-Me-Not	*Myosotis scorpioides*	6	1.8%	9.5%	3.9%	0.01
Reed Canary Grass	*Phalaris arundinacea*	4	25.1%	89.7%	50.3%	0.16
Common Buckthorn	*Rhamnus cathartica*	7	1.2%	97.2%	19.9%	0.13
Rambler Rose	*Rosa multiflora*	6	0.1%	7.1%	2.2%	0.01

Table 4-9
Geomorphology, Physical Habitat Structure, and Hydrology of Pilot Study Pools

	Geomorphology and Physical Habitat Structure								Pool Hydrology					
Pool_ID	Area (Acres)	Discrete Depression in floodplain	Pool part of larger wetland	Defined Inlet/Outlet	FWD (%)	CWD (%)	Windthrown Trees / Root Wads (%)	Hummocks (Sedge/Grass/shrub) (%)	Max Water Depth Observed in 2023 (inches)	Average Water Depth Observed in 2023 (inches)	Max Water Depth Observed in 2024 (inches)	Max Water Holding Capacity (inches)[1]	Typical Springtime Depth Range (inches)	Pool Hydrology[2]
Amendment														
5A-VP-9	0.6		✓		6-15	0.8%	6-15	1-5	16	5.6	24	24	7-12	Seasonally Flooded
5A-VP-12	0.27	✓		✓	1-5	2.0%	0	0	24	13.7	31	30	18-24	Seasonally Flooded/Saturated
5A-VP-15	0.37	✓			1-5	0.5%	0	0	18	7.8	20	30	12-18	Seasonally Flooded/Saturated
5A-VP-22	0.82		✓		1-5	0.3%	0	6-15	27	12.6	24	40	18-24	Seasonally Flooded/Saturated
5A-VP-27	0.08	✓			1-5	0.0%	0	0	Dry	0	10	30	4-6	Seasonally Flooded
Excavate/Restore														
5A-VP-4	0.23	✓			16-25	5.0%	0	1-5	18	7.6	36	30	10-14	Seasonally Flooded/Saturated
5A-VP-7	0.41	✓		✓	6-15	1.0%	1-5	0	18	8.8	32	30	12-24	Seasonally Flooded
5A-VP-16	0.04	✓			16-25	1.2%	0	1-5	23	10.3	21	24	18-24	Seasonally Flooded
5A-VP-52	0.06	✓			1-5	0.0%	0	1-5	11	5.3	16	18	12-16	Seasonally Flooded
5A-VP-57	0.49	✓		✓	16-25	0.8%	6-15	0	37	19.9	40	18	12-18	Seasonally Flooded
Control														
5A-VP-3	0.39	✓		✓	6-15	0.8%	1-5	0	6	2.6	10	30	6-10	Seasonally Flooded
5A-VP-5	0.33		✓		1-5	0.4%	0	0	17	9.6	25	30	6-14	Semi-permanently Flooded
5A-VP-10	0.17		✓		16-25	1.8%	0	0	13	5.8	12	18	8-12	Seasonally Flooded
5A-VP-21	1.65		✓		6-15	0.5%	1-5	0	23	13.6	26	36	18-24	Seasonally Flooded/Saturated
5A-VP-26	0.08	✓		✓	1-5	1.0%	0	0	15	7.5	16	16	10-16	Seasonally Flooded
5A-VP-55	0.25	✓		✓	1-5	0.6%	0	0	17	8.8	40	30	18-24	Semi-permanently Flooded

Table 4-9
Geomorphology, Physical Habitat Structure, and Hydrology of Pilot Study Pools

	Geomorphology and Physical Habitat Structure								Pool Hydrology					
Pool_ID	Area (Acres)	Discrete Depression in floodplain	Pool part of larger wetland	Defined Inlet/Outlet	FWD (%)	CWD (%)	Windthrown Trees / Root Wads (%)	Hummocks (Sedge/Grass/shrub) (%)	Max Water Depth Observed in 2023 (inches)	Average Water Depth Observed in 2023 (inches)	Max Water Depth Observed in 2024 (inches)	Max Water Holding Capacity (inches)[1]	Typical Springtime Depth Range (inches)	Pool Hydrology[2]
5A-VP-61	0.26	P			16-25	2.8%	1-5	0	17	9.1	24	24	12-18	Seasonally Flooded

Notes:

1. Holding capacity is estimated based on topography and is the potential max depth of water with no flow in or out of the pool
2. Pool Hydrology categories are from FGDC (2013): Classification of Wetlands and Deepwater Habitats of the United States.

Table 4-10
Soil Characteristics in Pilot Study Pools

Plot ID	Soils Profile Description								
	Depth Start (Inches)	Depth End (Inches)	Matrix		Redox Features				Texture
			Color (Moist)	%	Color (Moist)	%	Type	Loc	
Amendment									
5AVP9	0	3	10YR 3/1	100					Organic/Muck
	3	10	10YR 3/1	95	10YR 4/4	5	C	M	Very Fine Sandy Loam
	10	20	10YR 3/1	95	10YR 4/1	5	C	M	Very Fine Sandy Loam
	20	28	2.5Y 4/1	95	10YR 4/4	5	C	M	Very Fine Sandy Loam
	28	34	5Y 4/1	100					Loamy Sand
5AVP12	0	15	10YR 2/1	100					Organic/Muck
	15	30	10YR 2/2	100					Organic/Muck
	30	34	10YR 3/1	90	10YR 3/6	10	C	M	Loamy Sand
5AVP15	0	32	10YR 2/1	100					Organic/Muck
	32	36	10YR 3/1	90	10YR 4/4	10	C	M	Fine Sandy Loam
5AVP22	0	4	10YR 2/1	100					Organic/Muck
	4	16	10YR 4/1	95	10YR 3/6	5	C	M	Fine Sandy Loam
	16	26	5Y 4/1	95	10YR 3/6	5	C	M	Fine Sandy Loam
	26	34	5Y 3/1	95	10YR 3/6	5	C	M	Fine Sandy Loam
5AVP27	0	8	10YR 3/1	95	10YR 4/6	5	C	M	Fine Sandy Loam
	8	20	2.5Y 4/1	95	10YR 3/6	5	C	M	with streaking FSL
	20	28	2.5Y 3/2	95	10YR 3/4	5	C	M	Loamy Sand
	28	40	10YR5/1	95	10YR 4/4	5	C	M	Loamy Sand
Excavate/Restore									
5AVP4	0	5	10YR 3/1	100					Fine Sandy Loam
	5	20	2.5Y 4/2	95	7.5Y 3/2	5	C	M	Fine Sandy Loam
	20	24	10YR 3/1	95	7.5Y 3/2	5	C	M	Fine Sandy Loam
	24	34	2.5Y 4/1	95	10YR 3/3	5	C	M	Loamy sand

Table 4-10
Soil Characteristics in Pilot Study Pools

Plot ID	Soils Profile Description								
	Depth Start (Inches)	Depth End (Inches)	Matrix		Redox Features				Texture
			Color (Moist)	%	Color (Moist)	%	Type	Loc	
5AVP7	0	13	10YR 3/1	95	10YR 3/4	5	C	M	Very Fine Sandy Loam
	13	26	10YR 4/1	95	10YR 3/4	5	C	M	Very Fine Sandy Loam
	26	32	2.5Y 4/1	95	10YR 3/1	5	C	M	Very Fine Sandy Loam
5AVP16	0	10	10YR 3/1	100					Organic/Muck
	10	24	2.5Y 3/1	95	10YR 3/3	5	C	M	Very Fine Sandy Loam
	24	34	5Y 4/4	95	2.5Y 3/3	5	C	M	Fine Sandy Loam
5AVP52	0	4	10YR 3/1	95	10YR 4/4	5	C	M	Fine Sandy Loam
	4	16	10YR 3/4	95	2.5Y 3/1	5	C	M	Fine Sandy Loam
	16	24	2.5Y 3/1	95	10YR 3/3	5	C	M	Very Fine Sandy Loam
	24	30	2.5Y 4/1	95	10YR 3/3	5	C	M	Very Fine Sandy Loam
5AVP57	0	3	10YR 2/1	100					Organic/Muck
	3	18	2.5Y 3/2	95	10YR 3/3	5	C	M	Fine Sandy Loam
	18	26	2.5Y 3/1	100					Fine Sandy Loam
	26	30	2.5Y 4/1	95	10YR 3/3	5	C	M	Very Fine Sandy Loam
Control									
5AVP3	0	3	10YR 2/2	100					Fine Silt Loam
	3	5	10YR 3/1	100					Fine Silt Loam
	5	10	10YR 4/3	100					Fine Sandy Loam
	10	16	10YR 3/3	95	10YR 4/4	5	C	M	Sandy Loam
	16	24	10YR 4/2	95	10YR 4/4	5	C	M	Coarse Loamy Sand
	24	34	2.5Y 4/2	100					Loamy sand
5AVP5	0	2	10YR 2/1	100					Organic/Muck
	2	10	2.5Y 2.5/1	95	7.5Y 3/2	5	C	M	Very Fine Sandy Loam
	10	20	2.5Y 3/1	95	7.5Y 3/2	5	C	M	Very Fine Sandy Loam

Table 4-10
Soil Characteristics in Pilot Study Pools

Plot ID	Soils Profile Description								
	Depth Start (Inches)	Depth End (Inches)	Matrix		Redox Features				Texture
			Color (Moist)	%	Color (Moist)	%	Type	Loc	
	20	32	2.5Y 4/1	95	7.5Y 3/2	5	C	M	Very Fine Sandy Loam
5AVP10	0	4	10YR 2/2	100					Organic/Muck
	4	10	10YR 3/2	100					Loamy Sand
	10	24	10YR 5/1	95	10YR 5/8	5	C	M	Coarse Loamy Sand
	24	30	10YR 4/1						Silt Loam
	30	36	10YR 4/1	95	10YR 4-6	5	C	M	Silt Loam
5AVP21	0	16	10YR 2/1	100					Organic/Muck
	16	22	10YR 2/1	95	10YR 3/6	5	C	M	Fine Sandy Loam
	22	40	10YR 2/1	100					with organic plant material
5AVP26	0	4	10YR 2/1	100					Organic/Muck
	4	16	10YR 3/1	95	10YR 4/6	5	C	M	Fine Sandy Loam
	16	24	5Y 3/1	95	10YR 4/6	5	C	M	Fine Sandy Loam
	24	30	5Y 4/2	95	2.5Y 5/2	5	C	M	Very Fine Sandy Loam
5AVP55	0	22	2.5Y 3/1	95	10YR 3/3	5	C	M	Fine Sandy Loam
	22	30	2.5Y 4/1	100					Fine Sandy Loam
5AVP61	0	2	10YR 2/1	100					Organic/Muck
	2	12	2.5Y 3/1	95	2.5Y 4/1	5	C	M	Very Fine Sandy Loam
	12	22	2.5Y 4/1	95	2.5Y 3/3	5	C	M	Very Fine Sandy Loam
	22	34	2.5Y 5/1	95	2.5Y 5/6	5	C	M	Very Fine Sandy Loam

Notes:
C: Concentrations
D: Depletions
M: Matrix
PL: Pore Linings

Table 4-11
Soil Data in Pilot Study Pools

Pool_ID	Percent Moisture	Percent Solids	pH	Total Organic Carbon (mg/Kg)
Amendment				
5AVP9	39.8	60.2	6.4	60000
5AVP12	56.9	43.1	6.1	61000
5AVP15	49.6	50.4	6.2	55000
5AVP22	38.8	61.2	6.2	24000
5AVP27	32.6	67.4	5.9	18000
Excavate/Restore				
5AVP4	35.9	64.1	6.1	19000
5AVP7	46.7	53.3	6.1	53000
5AVP16	40	60	6	33000
5AVP52	46.2	53.8	5.9	51000
5AVP57	42.1	57.9	6.2	34000
Control				
5AVP3	31.8	68.2	6.1	15000
5AVP5	41.1	58.9	5.7	33000
5AVP10	26.8	73.2	5.9	20000
5AVP21	No Data			
5AVP26	39.9	60.1	6	38000
5AVP55	52.5	47.5	6.5	50000
5AVP61	No Data			

Table 4-12
Water Quality Data in Pilot Study Pools

Pool_ID	Date	Temp (C)	DO (mg/L)	Specific Conductivity	pH	ORP	Turbidity (NTU)	Alkalinity (PPM)[1]	Hardness (ppm)[1]
Amendment									
5AVP12	4/26/23	11.1	6.3	225	7.0				
	4/1/24	6.5	9.9	165	7.4				
	4/10/25	4.4	6.2	208	7.0	262.5	0.04	80-120	120-250
5AVP15	4/1/24	6.4	9.7	171	7.4				
	4/9/25	11.5	4.9	282	7.1	47.1	1.84	0-40	250-425
5AVP22	4/26/23	11.7	1.9	193	6.6				
	4/1/24	6.8	8.3	111	7.2				
	4/9/25	9.9	4.0	127	6.7	52.8	0.15	0-40	50-120
5AVP27	4/26/23	Dry Pool							
	4/1/24	5.5	7.5	32	6.7				
	4/9/25	8.2	5.0	69	6.5	60.7	0.73	0-40	50-120
5AVP9	4/1/24	5.6	9.0	125	7.3				
	4/9/25	3.0	7.7	171	6.8	67.3	0.07	0-40	120-250
Excavate/Restore									
5AVP16	4/26/23	11.7	4.7	229	6.8				
	4/1/24	5.9	6.3	146	7.0				
	4/9/25	11.1	4.6	173	6.8	49.4	0.00	80-120	50-120
5AVP4	4/1/24	5.8	7.1	91	6.9				
	4/9/25	2.2	3.1	87	6.3	111.8	14.2	0-40	50-120
5AVP52	4/2/24	5.2	5.1	226	7.1				
	4/10/25	7.8	8.6	321	6.9	111.1	0.00	80-120	50-120
5AVP57	4/2/24	5.3	7.5	170	7.6				
	4/10/25	8.6	5.4	222	7.2	25.3	0.18	120-180	120-250
5AVP7	4/1/24	6.2	8.2	132	7.2				

Table 4-12
Water Quality Data in Pilot Study Pools

Pool_ID	Date	Temp (C)	DO (mg/L)	Specific Conductivity	pH	ORP	Turbidity (NTU)	Alkalinity (PPM)[1]	Hardness (ppm)[1]
	4/9/25	4.2	3.7	172	6.7	78.7	2.52	40-80	50-120
Control									
5AVP10	4/1/24	4.7	7.7	145	7.0				
	4/9/25	3.8	6.6	148	6.8	66.1	0.54	40-80	120-250
5AVP21	4/1/24	7.0	6.3	182	7.0				
	4/9/25	12.3	5.2	191	6.9	51.0	4.55	40-80	120-250
5AVP26	4/1/24	5.5	9.1	110	6.8				
	4/9/25	7.5	9.5	90	6.9	44.1	0.86	0-40	50-120
5AVP3	4/26/23	13.9	3.5	143	6.5				
	4/1/24	4.9	6.0	60	6.8				
	4/9/25	0.7	3.7	141	6.5	116.5	30.0	0-40	50-120
5AVP5	4/26/23	10.4	4.0	112	6.2				
	4/1/24	5.3	3.7	76	6.5				
	4/9/25	8.9	3.0	107	6.3	44.6	0.00	0-40	50-120
5AVP55	4/2/24	5.5	6.8	221	7.5				
	4/10/25	9.6	3.9	215	6.6	8.3	0.46	180-240	250-425
5AVP61	4/2/24	6.8	4.2	66	7.0				
	4/10/25	5.2	7.6	95	6.9	69.2	0.00	0-40	50-120
Min-Max (Mean)									
Amendment		3-11.7 (7.5)	1.9-9.9 (6.7)	32-282 (157)	6.5-7.4 (7.0)	47.1-262.5 (98.1)	0.04-1.84 (0.6)	20-100 (36)	85-338 (175)
Control		0.7-13.9 (7.0)	2.9-9.5 (5.7)	60-221 (131)	6.2-7.5 (6.8)	8.3-116.5 (57.1)	0-30 (5.2)	20-210 (58)	85-338 (149)
Excavate/Restore		2.2-11.7 (6.7)	3.1-8.6 (5.8)	87-321 (179)	6.3-7.6 (6.9)	25.3-111.8 (75.3)	0-14.2 (3.38)	20-150 (86)	85-185 (105)

Note:

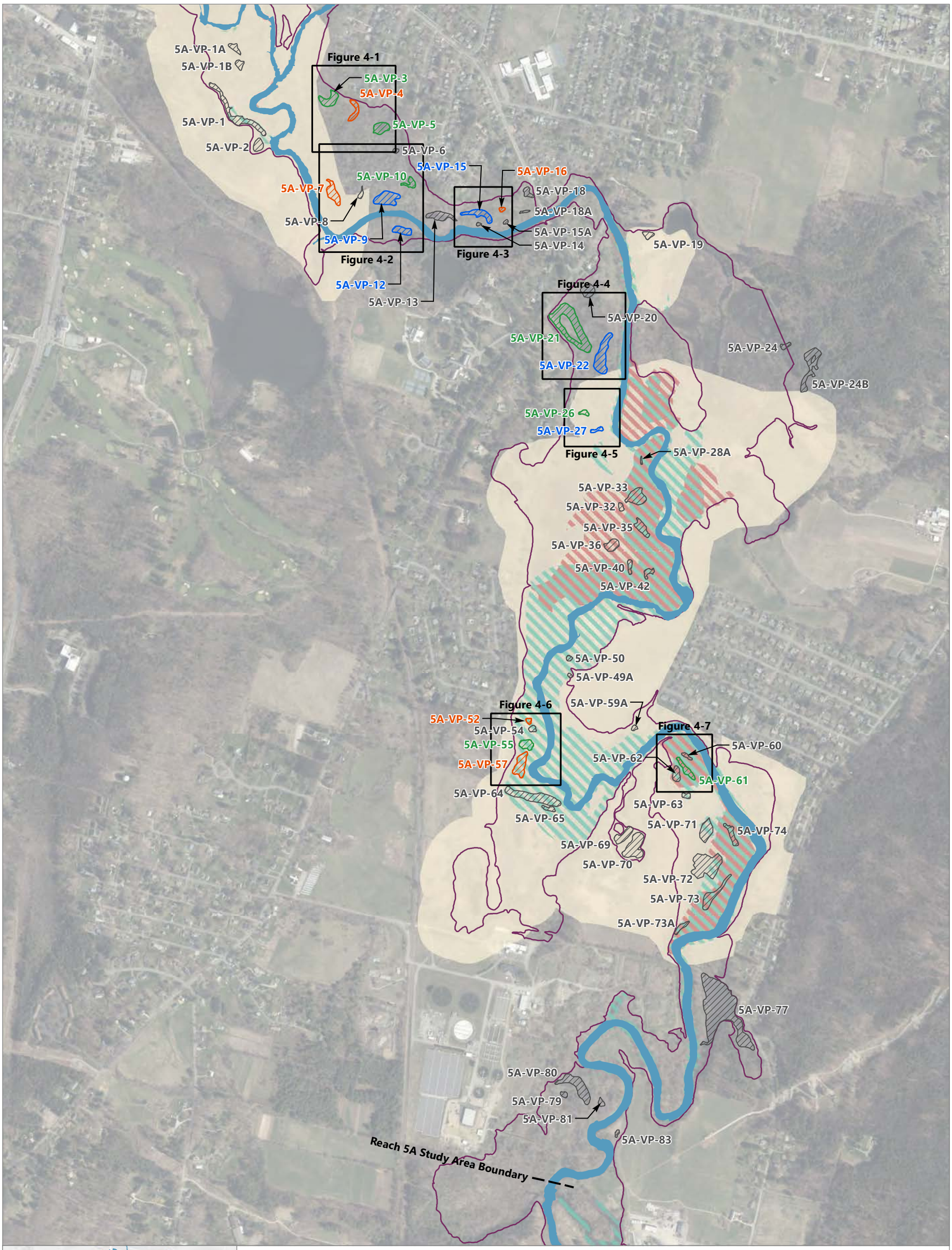
1. Min, max, and mean based on mid-point value of the range.

Table 4-13
Surrounding Land Use Conditions

Pool_ID	Number of Pools within 1,000 feet	Surrounding Land Use[1] (Percent of total area from edge of pool)							
		All Forest		Scrub/Shrub		Open Space		Developed	
		VPE 0-100	CTH 100-750	VPE 0-100	CTH 100-750	VPE 0-100	CTH 100-750	VPE 0-100	CTH 100-750
Amendment									
5A-VP-9	9	90	80.3	4.6	0.4	5.4	10	0	9.3
5A-VP-12	8	90.6	77.8	0	1.5	8.6	13.8	0.8	6.8
5A-VP-15	9	93.1	65.6	0	0.9	6.4	11.1	0.5	22.4
5A-VP-22	4	56.4	65.9	39.8	5.5	3.8	21.1	0	7.4
5A-VP-27	6	91.6	67	8.2	15	0.2	11	0	7
Excavate/Restore									
5A-VP-4	7	94.5	77.1	0	0.4	0	6.7	5.5	15.8
5A-VP-7	9	81.9	84.8	0	1.1	18.1	13.4	0	0.7
5A-VP-16	7	100	62.2	0	0.5	0	8.3	0	29.1
5A-VP-52	7	16.2	38.3	56.2	8.6	27.6	39.4	0	13.8
5A-VP-57	5	57.7	31	11.5	16.6	30.7	47.6	0	4.8
Control									
5A-VP-3	8	100	74.2	0	0.6	0	12.4	0	12.7
5A-VP-5	8	100	70.5	0	1.1	0	3.8	0	24.6
5A-VP-10	11	100	76	0	1.5	0	6.1	0	16.3
5A-VP-21	4	56.4	58.7	16.9	5	18.6	13.7	8.1	22.5
5A-VP-26	4	82.2	66.2	15.4	13.9	0.7	9.3	1.7	10.6
5A-VP-55	7	41.5	36.2	34.4	11	24.1	44.6	0	8.3
5A-VP-61	9	97.1	47.3	0	3.4	2.9	34.8	0	14.4

Notes:
CTH: Critical Terrestrial Habitat
VPE: Vernal Pool Envelope

Figures



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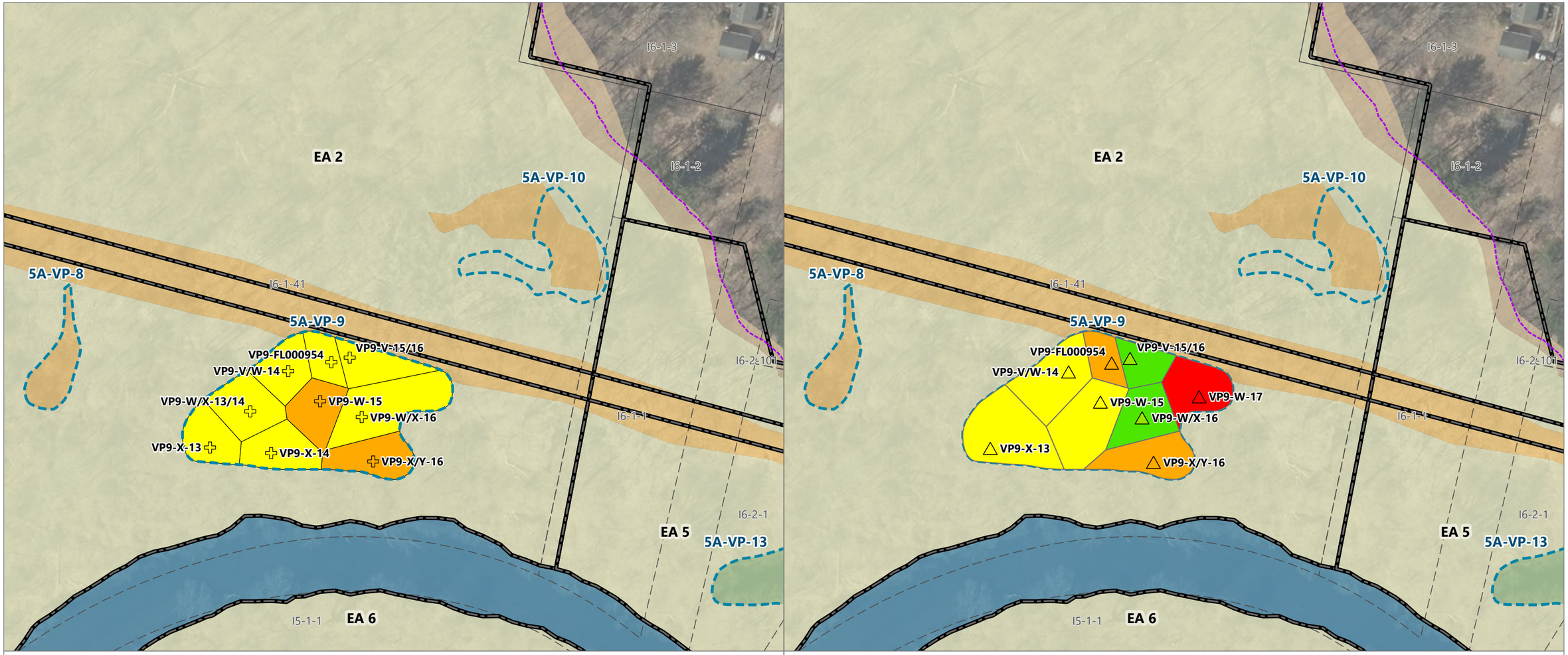
ANCHOR QEA

Figure 1-1
Summary of Vernal Pools Selected for Pilot Study
Vernal Pool Pilot Study Baseline Monitoring
Housatonic River – Rest of River



Total PCB in Soil | **Total PCB in Porewater**

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

Soil PCB Concentrations (mg/kg)

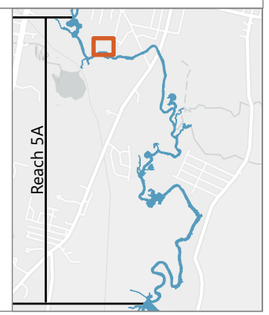
- ≤2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

Porewater PCB Concentrations (ng/L)

- ≤50
- 50.1 - 100
- 100.1 - 500
- 500.1 - 1,000
- >1,000

NOTE:
1. Aerial imagery from MassGIS 2023.

0 100
Feet



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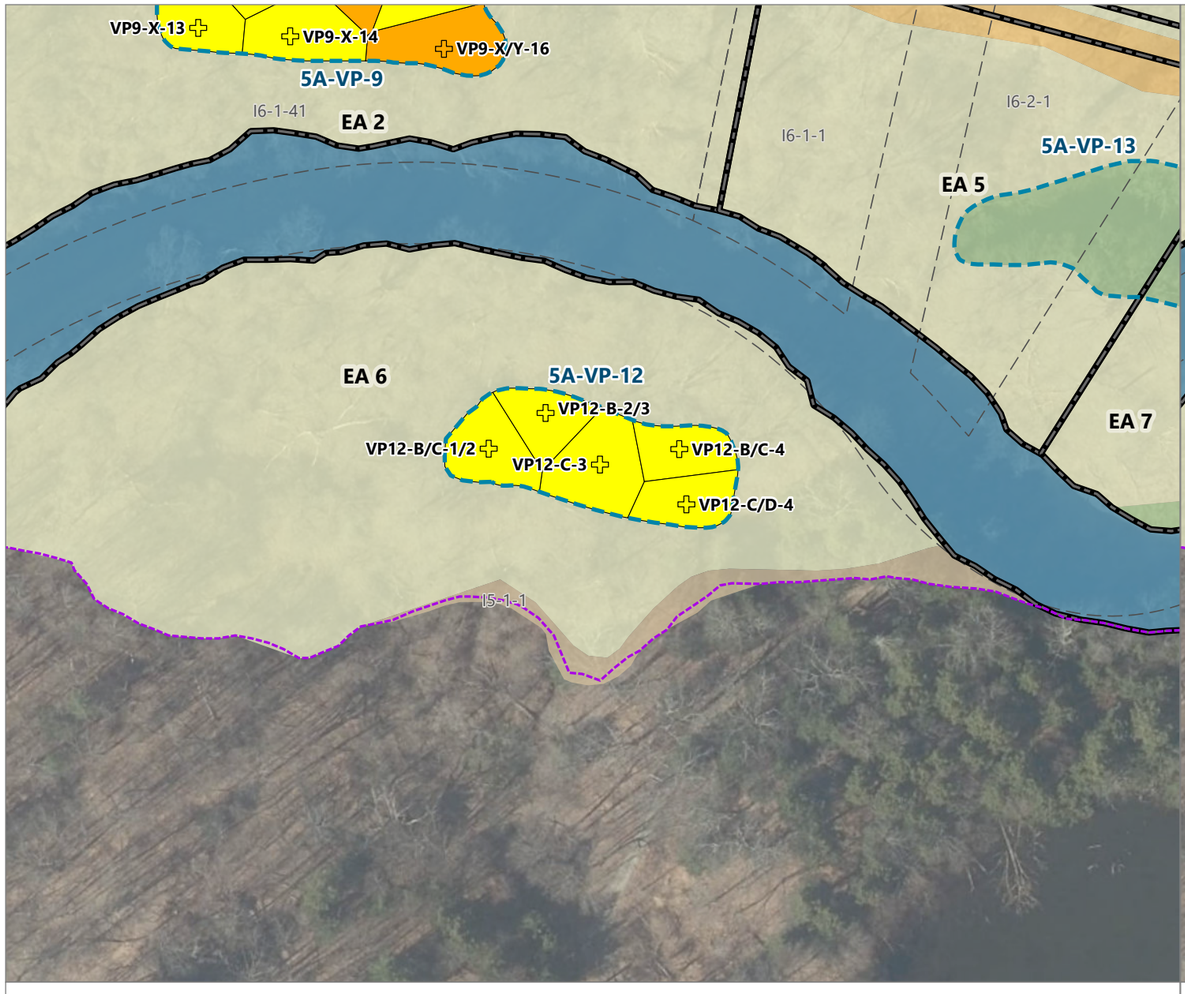
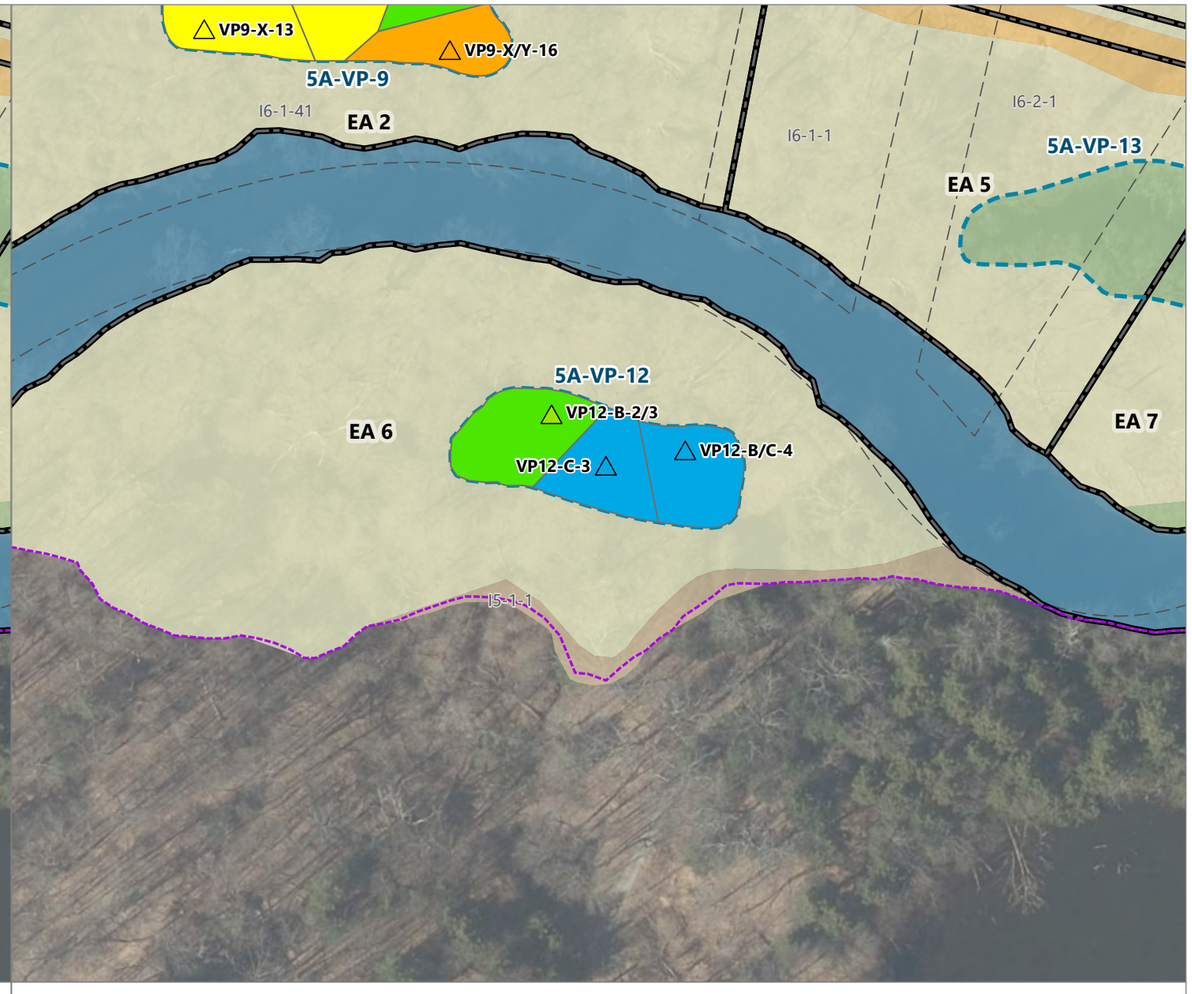
ANCHOR QEA

Figure 2-1
Baseline Monitoring Sampling: 5A-VP-9
Vernal Pool Pilot Study Baseline Monitoring
Housatonic River – Rest of River



Total PCB in Soil



Total PCB in Porewater

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

Soil PCB Concentrations (mg/kg)

- ≤2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

Porewater PCB Concentrations (ng/L)

- ≤50
- 50.1 - 100
- 100.1 - 500
- 500.1 - 1,000
- >1,000

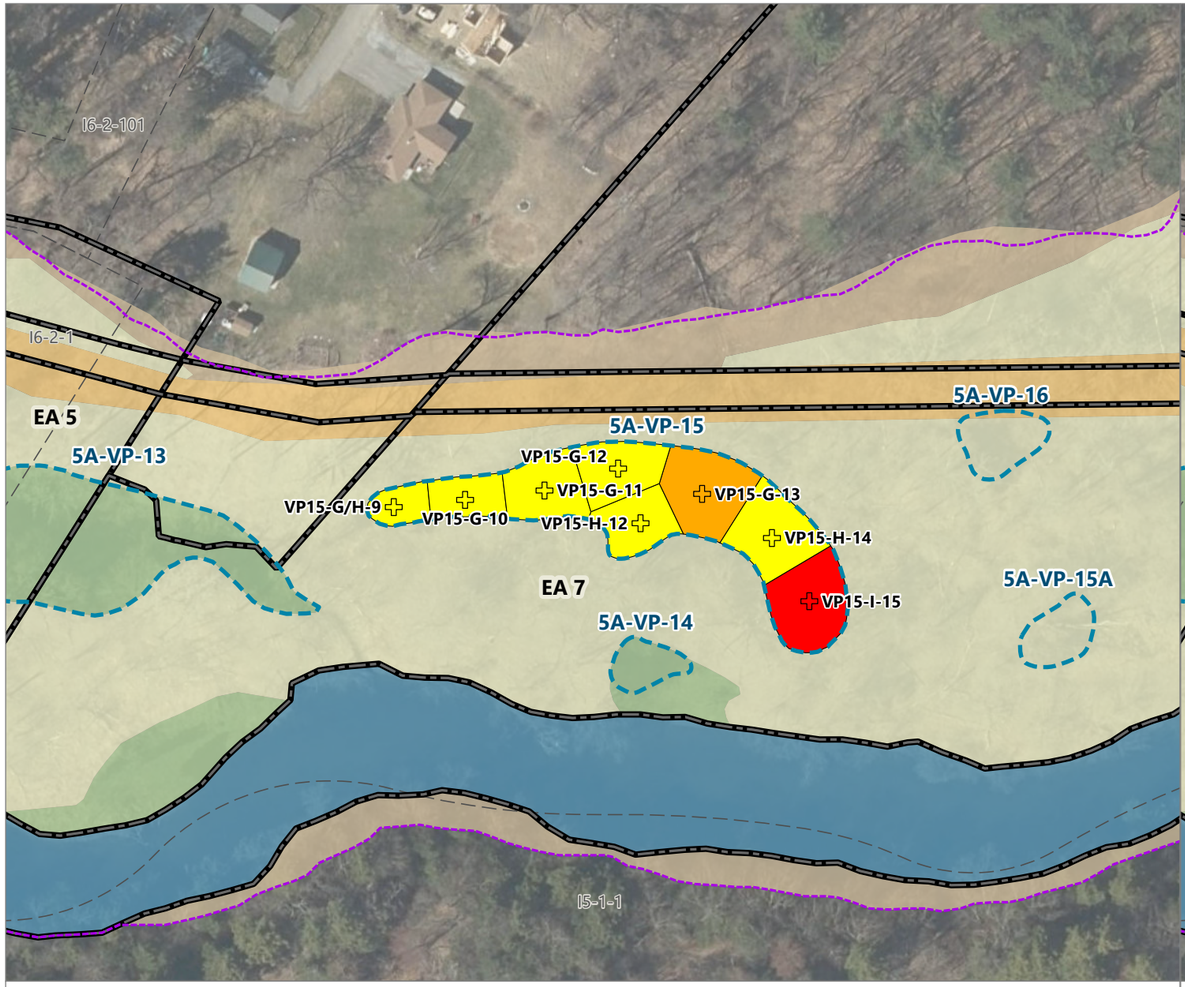
NOTE:
1. Aerial imagery from MassGIS 2023.

0 100
Feet

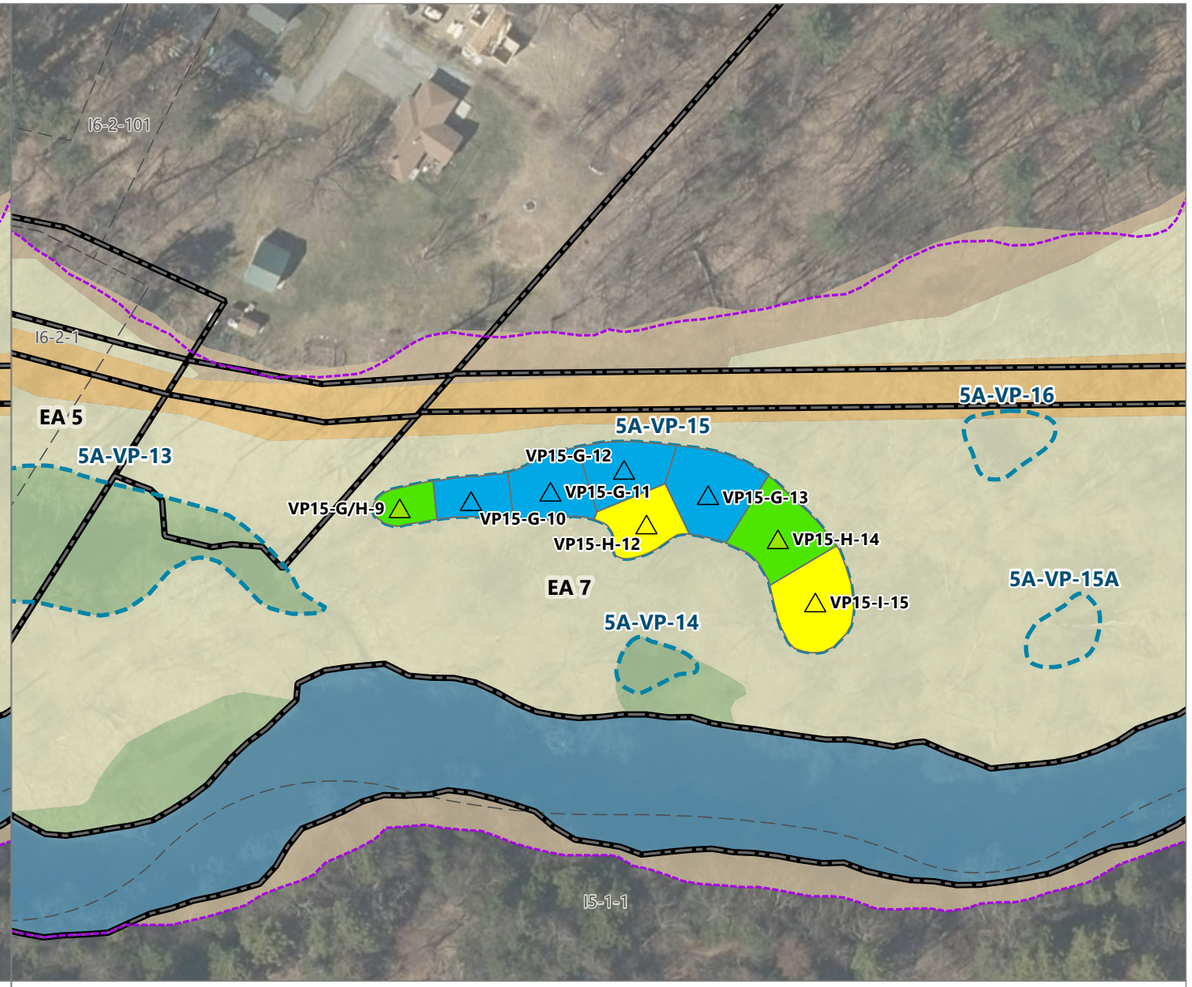
Publish Date: 2025/05/05, 1:11 PM | User: eiverson
Filepath: \\gstfile01\gis\Jobs\GE_0469\HousatonicRiver\Maps\Reports\VernalPools\PilotStudy\WorkPlan\R5APilotStudyWorkPlan.aprx\Figure X-1to5 Baseline Monitoring

ANCHOR QEA

Figure 2-2
Baseline Monitoring Sampling: 5A-VP-12
Vernal Pool Pilot Study Baseline Monitoring
Housatonic River – Rest of River



Total PCB in Soil



Total PCB in Porewater

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

Soil PCB Concentrations (mg/kg)

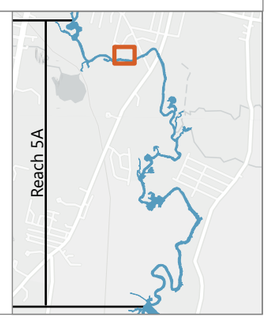
- ≤2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

Porewater PCB Concentrations (ng/L)

- ≤50
- 50.1 - 100
- 100.1 - 500
- 500.1 - 1,000
- >1,000

NOTE:
1. Aerial imagery from MassGIS 2023.

0 100
Feet



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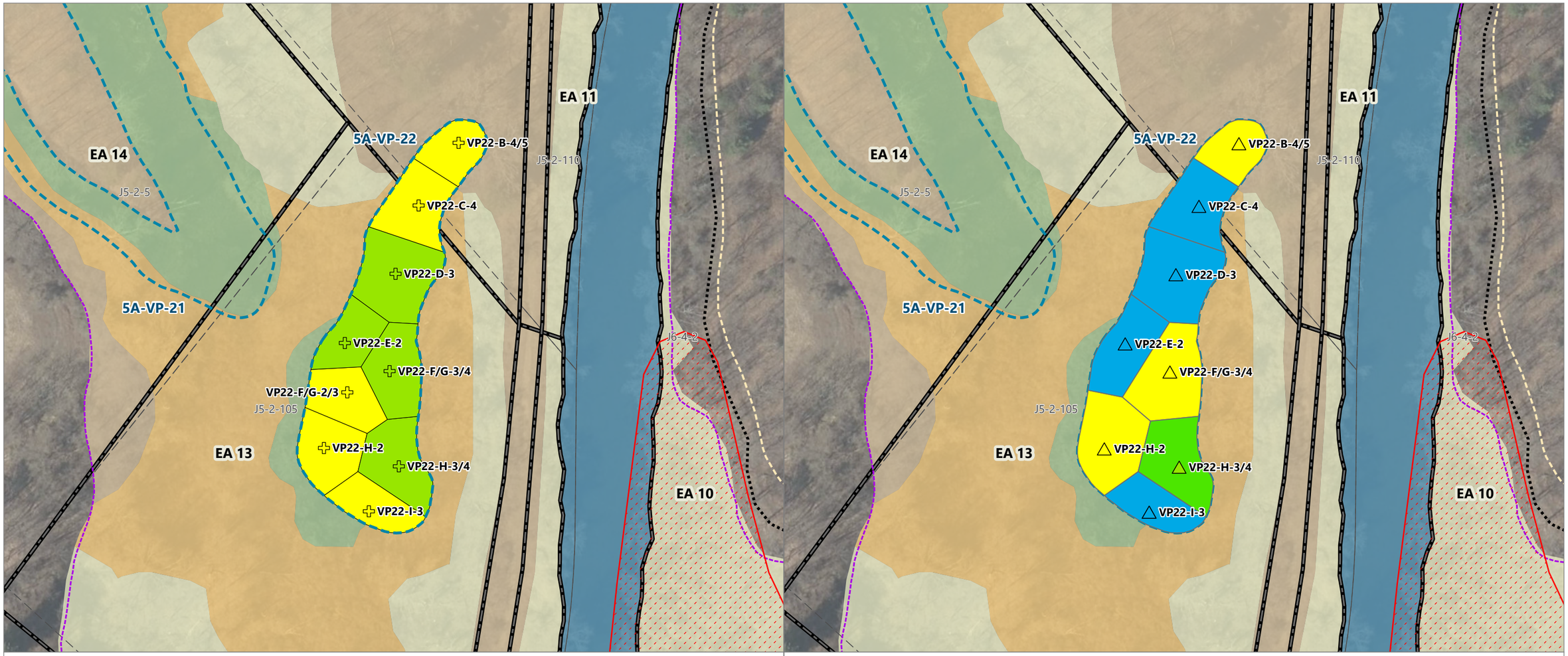
ANCHOR QEA

Figure 2-3
Baseline Monitoring Sampling: 5A-VP-15
Vernal Pool Pilot Study Baseline Monitoring
Housatonic River – Rest of River



Total PCB in Soil

Total PCB in Porewater

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)
- Core Area 1 Habitat
- Walking Trails

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

Soil PCB Concentrations (mg/kg)

- ≤2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

Porewater PCB Concentrations (ng/L)

- ≤50
- 50.1 - 100
- 100.1 - 500
- 500.1 - 1,000
- >1,000

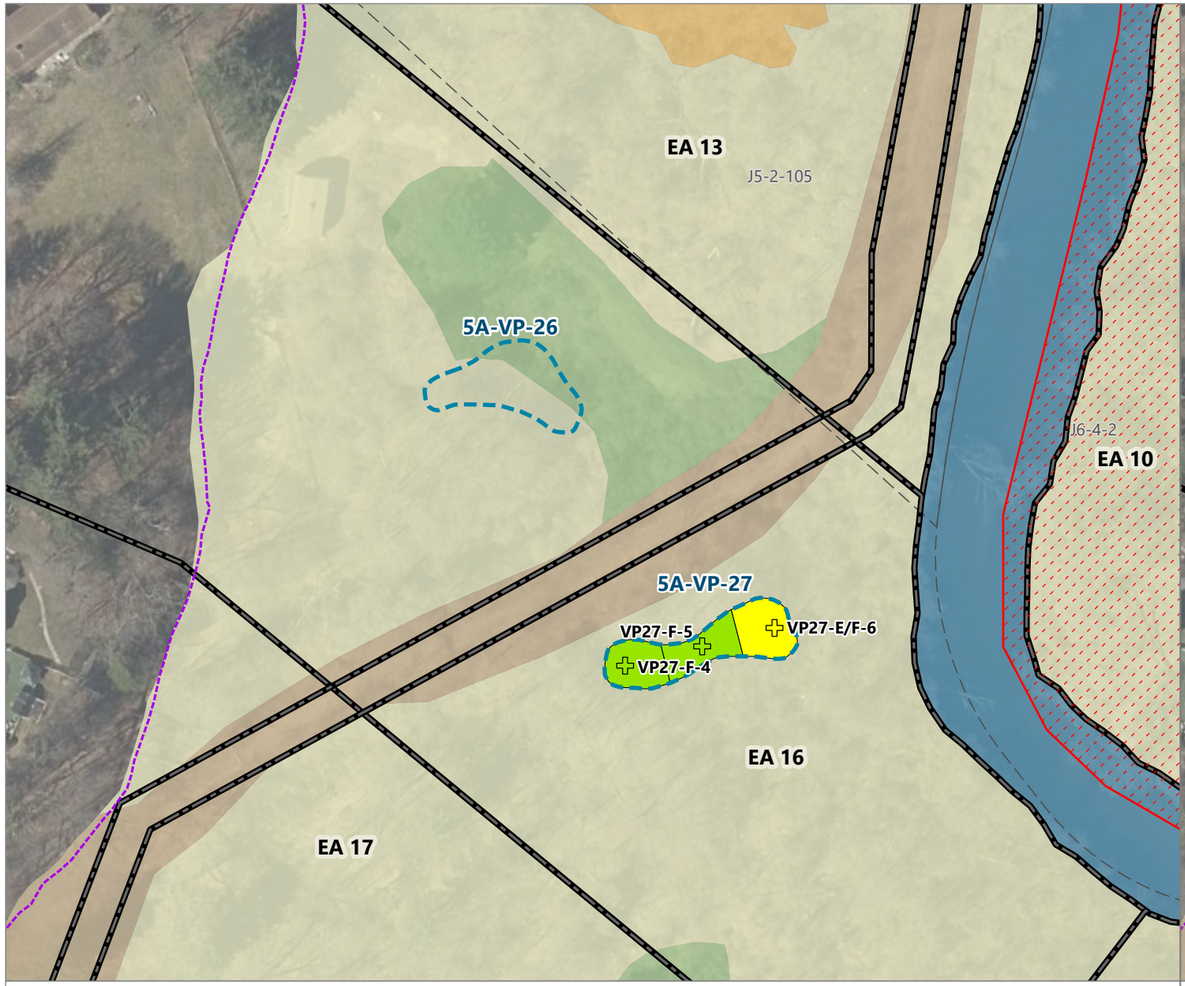
NOTE:
1. Aerial imagery from MassGIS 2023.

0 100
Feet

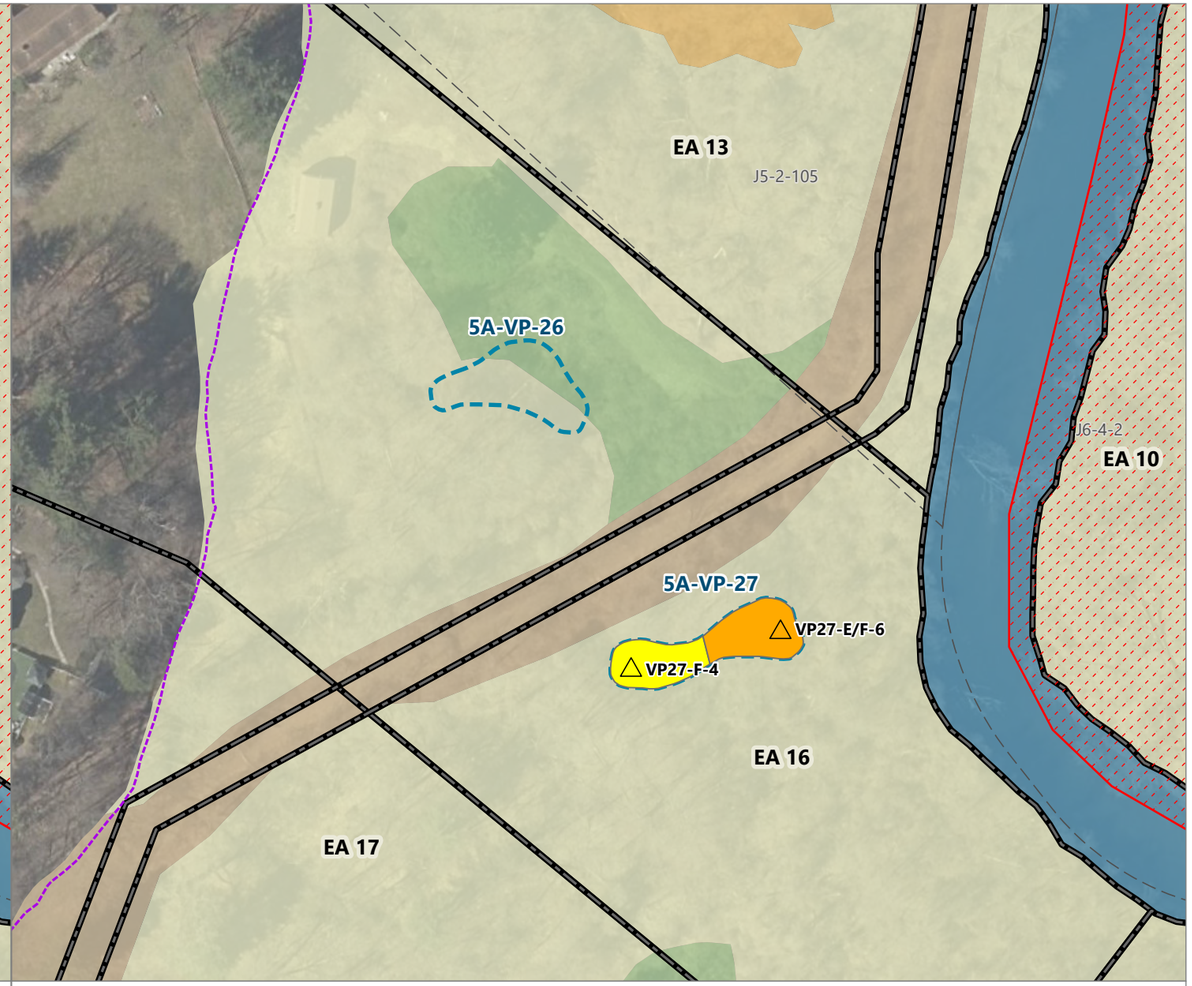
Publish Date: 2025/05/05, 1:11 PM | User: eiverson
Filepath: \\gstfile01\gis\Jobs\GE_0469\HousatonicRiver\Maps\Reports\VernalPools\PilotStudy\WorkPlan\R5APilotStudyWorkPlan.aprx\Figure X-1to5 Baseline Monitoring

ANCHOR QEA

Figure 2-4
Baseline Monitoring Sampling: 5A-VP-22
Vernal Pool Pilot Study Baseline Monitoring
Housatonic River – Rest of River



Total PCB in Soil



Total PCB in Porewater

LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)
- Core Area 1 Habitat

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

Soil PCB Concentrations (mg/kg)

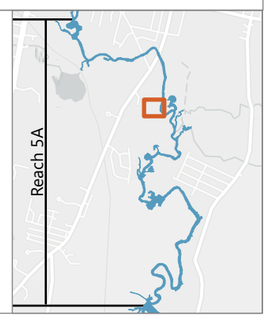
- ≤2
- 2.1 - 10
- 10.1 - 25
- 25.1 - 50
- > 50

Porewater PCB Concentrations (ng/L)

- ≤50
- 50.1 - 100
- 100.1 - 500
- 500.1 - 1,000
- >1,000

NOTE:
1. Aerial imagery from MassGIS 2023.

0 100
Feet



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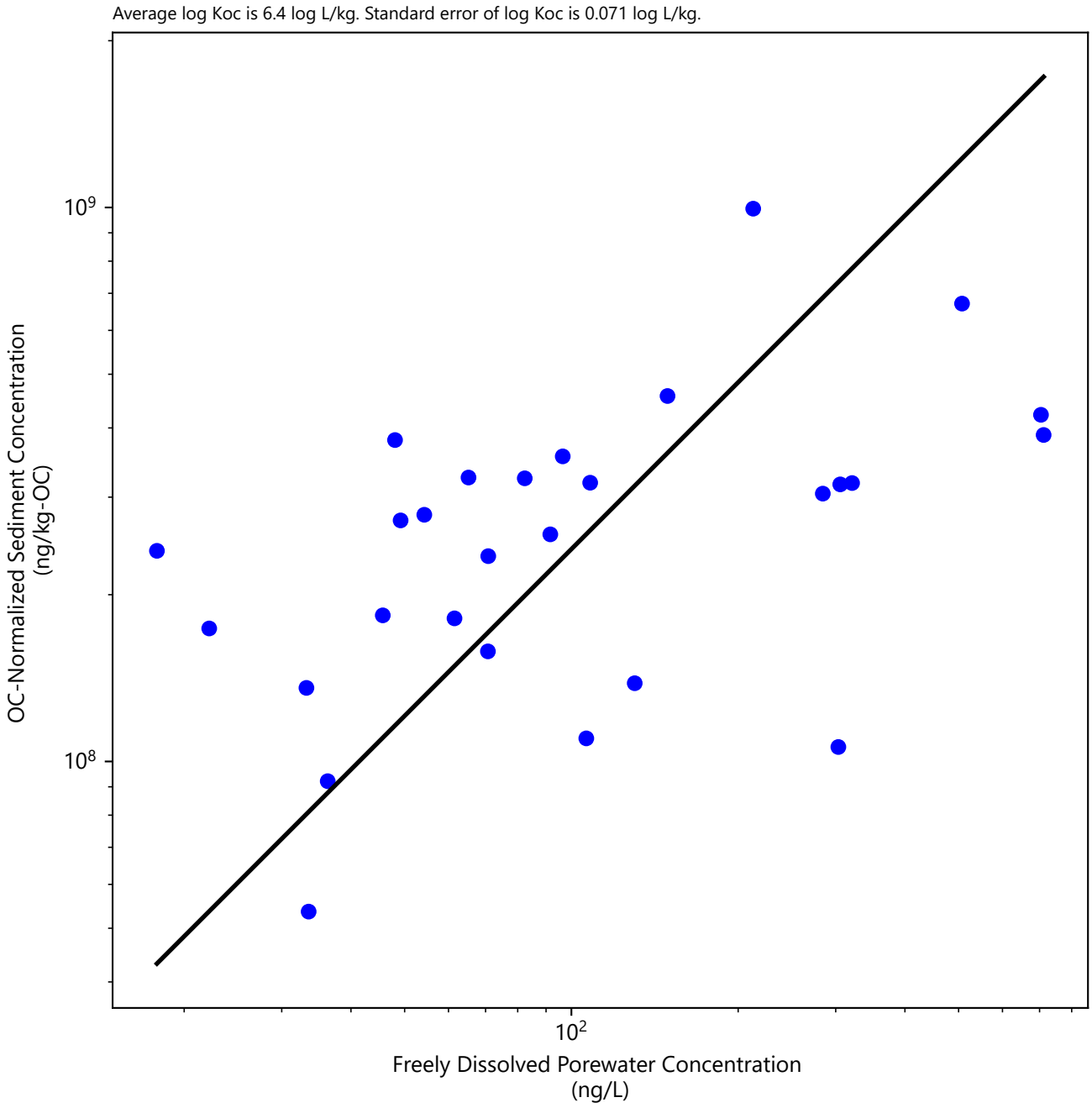
ANCHOR QEA

Figure 2-5
Baseline Monitoring Sampling: 5A-VP-27
Vernal Pool Pilot Study Baseline Monitoring
Housatonic River – Rest of River

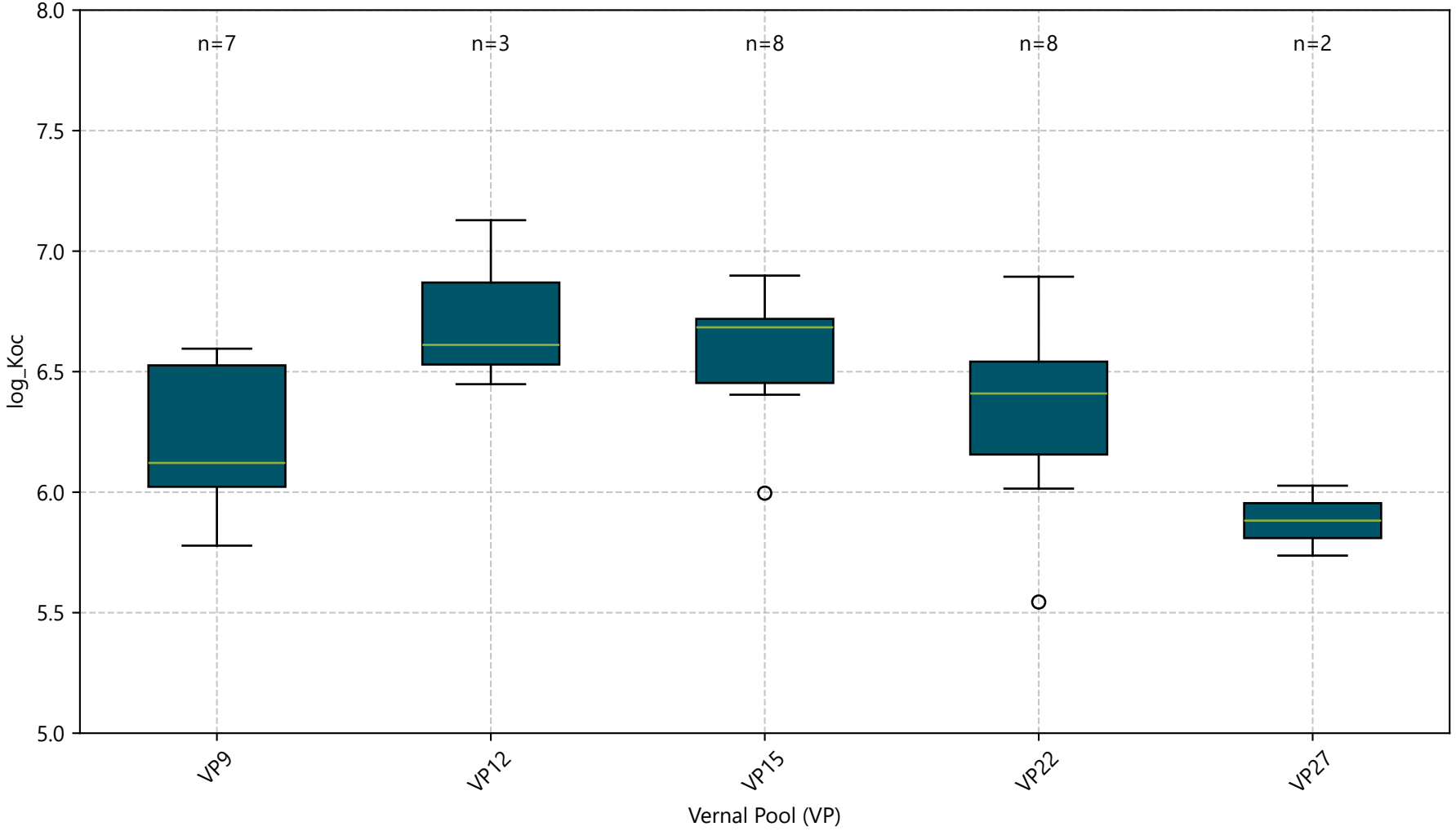


Notes:
1. TOC values less than 0.2% were set to 0.2%.
2. The black line represents the log-transformed regression based on Equation 3-1 in Appendix C.
3. Non-detect freely dissolved porewater or sediment concentrations were excluded from the analysis and not shown on the plots.

Publish Date: 01/22/2025 11:48 AM | User: SEA-JLIN2
C:\Users\jlin\OneDrive - ANCHOR QEA\Documents\GitHub\Housatonic-VP-Partition\Partition calcs_Housatonic.py

ANCHOR QEA

Figure 3-1
Partitioning Evaluation - Total PCB (U=0)
Vernal Pool Pilot Study Baseline Monitoring
Housatonic River – Rest of River

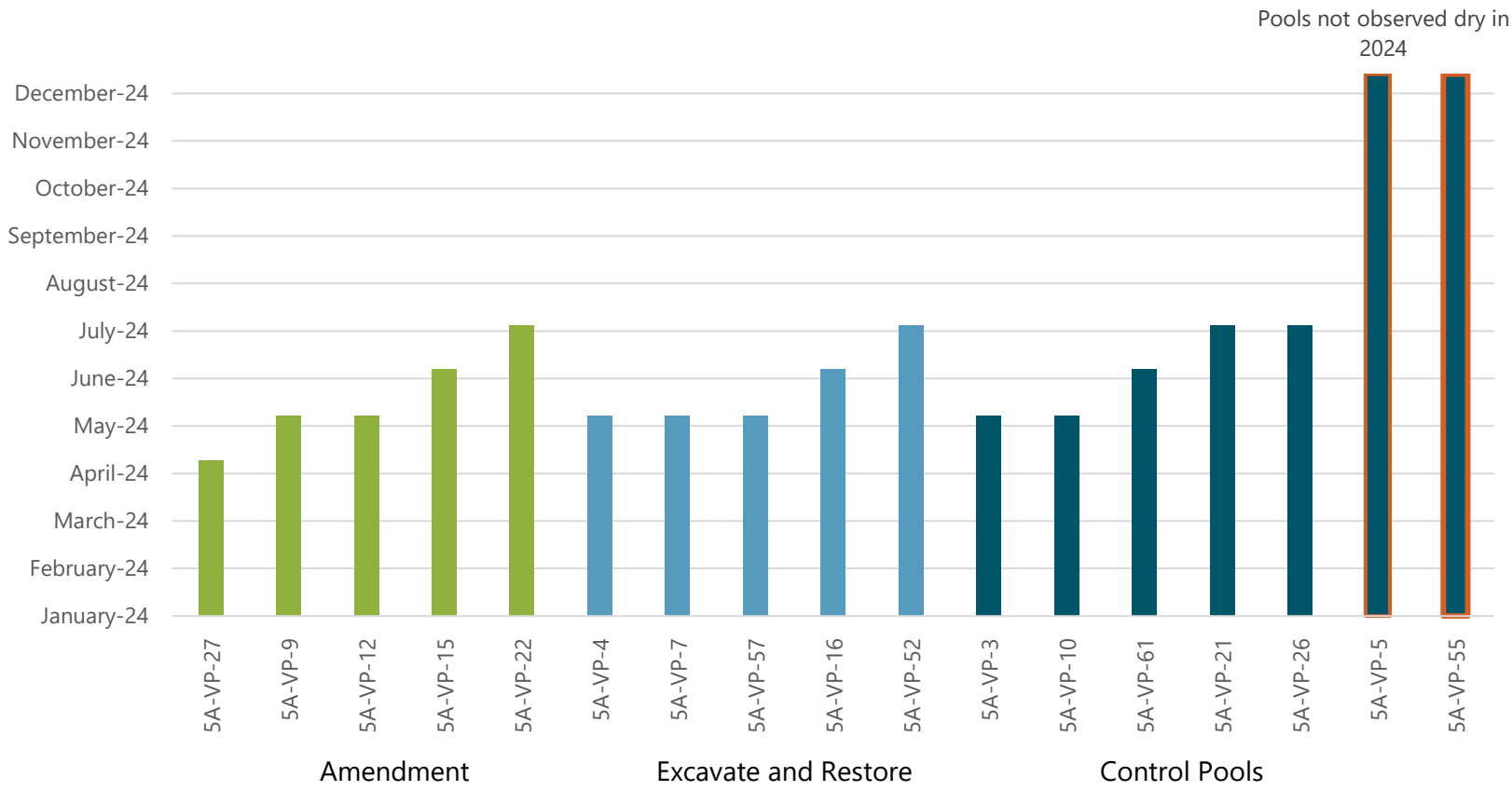


Notes:
1. Circle dots represent outliers, defined as values beyond 1.5×interquartile range (IQR) from the 25th or 75th percentiles.

Publish Date: 05/28/2025 13:13 PM | User: SEA-JLIN2
C:\Users\jlin\OneDrive - ANCHOR QEA\Documents\GitHub\Housatonic-VP-Partition\Box_plot.py

ANCHOR QEA

Figure 3-2
Distribution of Log Koc Values by Vernal Pool for Total PCBs
Vernal Pool Pilot Study Baseline Monitoring
Housatonic River – Rest of River

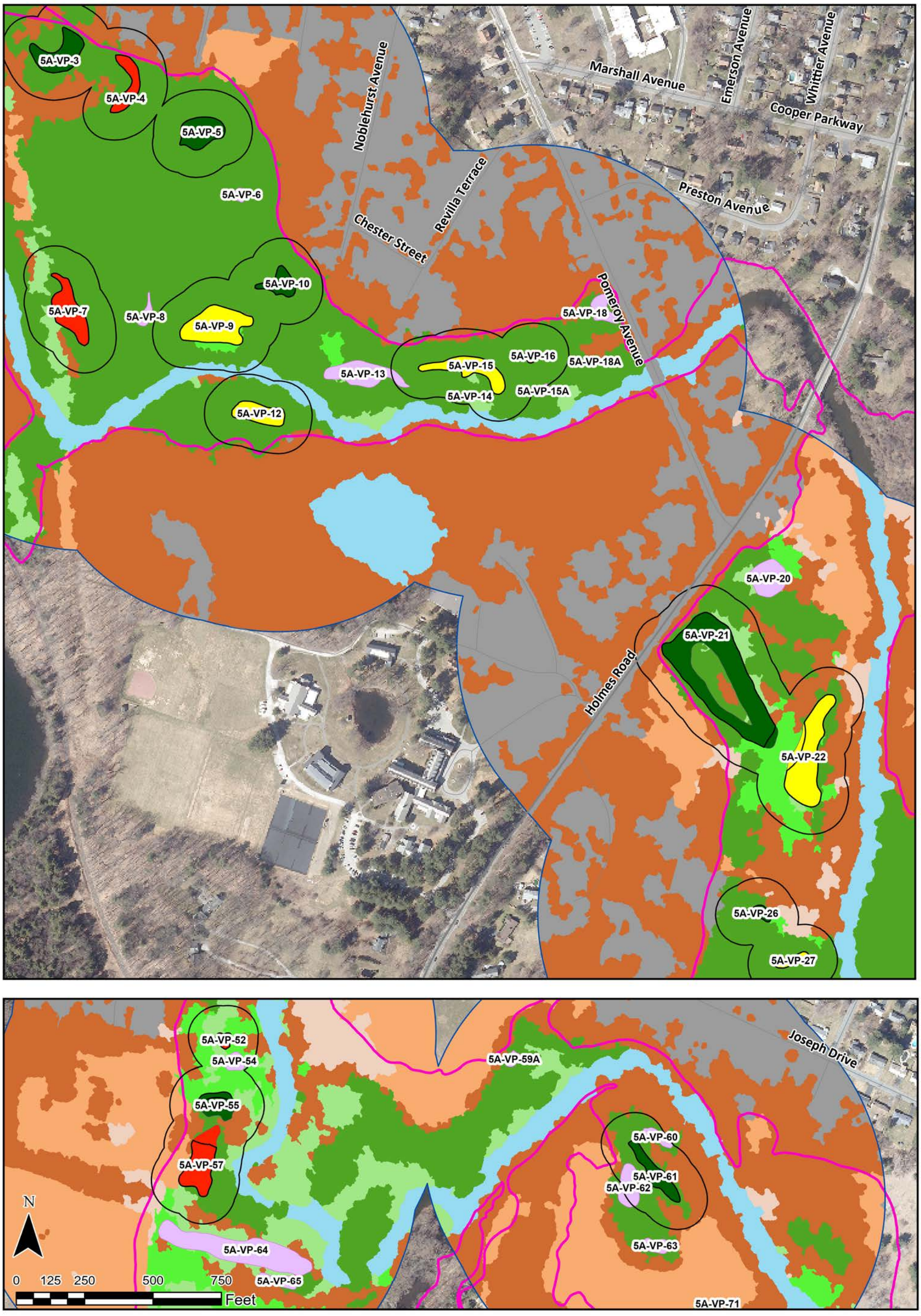


Note:

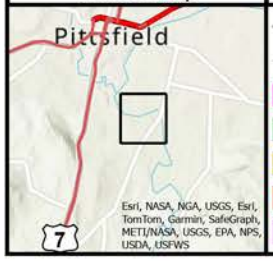
Each bar represents the month in which the pool was observed dry.

ANCHOR QEA

Figure 4-1
Vernal Pool Hydroperiod During 2024
Vernal Pool Pilot Study Baseline Monitoring
Housatonic River – Rest of River



Index Map



Legend

- Major Road, Collector
- Minor Road, Arterial
- PCB Isopleth
- Pilot Study - Control
- Pilot Study, Amendment
- Pilot Study, Excavate/Restore
- Other Certified Vernal Pools
- Pilot Pools 100ft Buffer
- Pilot Pools 750ft Buffer

MassGIS Landuse-Landcover (2016)

- Developed Open Space/ Impervious Surfaces
- Grassland
- Upland Scrub/Shrub
- Forested Upands
- Palustrine Emergent Wetland
- Palustrine Scrub/Shrub Wetland
- Palustrine Forested Wetland
- Water

Pilot Study Pool Buffer Habitats

Housatonic River - Pittsfield, MA

AECOM

SCALE	DATE	PROJECT NO.
1:4,000	6/17/20	60670015

Figure 4-2

Attachment A
Sample Collection Logs

Daily Log

ANCHOR QEA

Anchor QEA, LLC
1201 3rd Avenue, Suite 2600
Seattle, WA 98101
Phone 206.287.9130

PROJECT NAME: Housatonic Vernal Pools - SPME Deployment **DATE:** 5/31/24

SITE ADDRESS: 1 Plastics Ave, Pittsfield, MA, 01201 **PERSONNEL:** EP/BB/BT

WEATHER: **WIND FROM:** N NE E SE S SW W NW ? (NE)

(SUNNY) CLOUDY RAIN

(LIGHT) MEDIUM HEAVY

TEMPERATURE: °F 76.0 °C [Circle appropriate units]

TIME	COMMENTS
0750	EP on site at GE facility
0800	BB & BT on site at GE facility
0810	Sample Q/C and prep for cowies
0845	Mobilize to canoe meadows to meet oversight
~~0815~~ 0915	Oversight on site, mobilize to VP22
0945	At VP22, marking locations
1003	Soil sample collected @ VP22-B-4/5, SPME deployed @ 1003
~~1014~~ 1015	Soil sample collected @ VP22-C-4, SPME deployed @ 1015
1024	Soil sample collected @ VP22-D-3, SPME deployed @ 1024
~~1050~~	~~Soil sample collected @ VP27~~
1035	Soil sample collected @ VP22-F/G-3/4, SPME deployed @ 1035
1050	Soil sample collected @ VP22-E-2, SPME deployed @ 1050
1108	Soil sample collected @ VP22-F/G-2/3, SPME deployed @ 1108
1124	Soil sample collected @ VP22-H-2, SPME deployed @ 1124 (MS/MSD)
1146	Soil sample collected @ VP22-I-3, SPME deployed @ 1146 (Field dup) @ 1220
1209	Soil sample collected @ VP27-H-3/4, SPME deployed @ 1209 (MS/MSD)
1220	Measure water level at locations
1230	Done at VP22, return to vehicle
1250	Returned to GE facility, QC sample jars
1345	Process SPME samplers for PRC measurement
1500	BB & BT off site
1545	EP off site, done for the day

EP

Signature: _____

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP22-H-3/4
Job No:	210469-05.03: Task: 01	Date:	5/31/24
Field Staff:	EP/BB/BT	Time:	1209
Attempt No:	1	Total Depth:	15cm
Excavation Method:	~~Hand Trowel~~ / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10		0-15cm; ~~VP22-C-4~~ same as VP22-C-4
20		
30		
40		
50		
60		
70		
80		
90		

Notes

MS/MSD collected here

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP22-I-3
Job No:	210469-05.03: Task: 01	Date:	5/31/24
Field Staff:	EP/BB/BT	Time:	11:46
Attempt No:		Total Depth:	15cm
Excavation Method:	Hand Trowel / ~~Core Tube~~	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10		0-15cm: same as VP22-F/G-2/3 Significant plant coverage at location
20		~~overlying water~~ = No overlying water, but water table ~2cm below ~~surface~~ surface
30		
40		
50		
60		
70		
80		
90		

Notes

Field duplicate collected here (FD-2), duplicate SPME about 6 inches from parent

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP22-H-2
Job No:	210469-05.03: Task: 01	Date:	5/31/24
Field Staff:	EP/BT/BB	Time:	11:24
Attempt No:	1	Total Depth:	15cm
Excavation Method:	Hand Trowel / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10		0-15cm: Same as VP22-F/G-2/3 Significant plant coverage at location Overlying water = 3.5 inches
20		
30		
40		
50		
60		
70		
80		
90		

Notes

MS/MSD collected here

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP22-F/G-2/3
Job No:	210469-05.03: Task: 01	Date:	5/31/24
Field Staff:	EP/BB/BT	Time:	1108
Attempt No:		Total Depth:	15
Excavation Method:	Hand Trowel / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10		0-15cm: Same as 2-15cm interval of VP22-E-2
20		Significant plant coverage at location
30		overlying water = 4 inches
40		
50		
60		
70		
80		
90		

Notes

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP22-E-2
Job No:	210469-05.03: Task: 01	Date:	5/31/24
Field Staff:	EP/BB/BT	Time:	1050
Attempt No:		Total Depth:	15cm
Excavation Method:	Hand Trowel / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10		0-2cm: leaf litter 2-15cm: SILT, trace f-sand, loose, wet, dark brownish grey, abundant plant matter (roots)
20		Significant plant coverage at location
30		overlying water = ~5 inches
40		
50		
60		
70		
80		
90		

Notes

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP22-F/G-3/4
Job No:	210469-05.03: Task: 01	Date:	5/31/24
Field Staff:	EP/BB/BT	Time:	1035
Attempt No:	1	Total Depth:	15cm
Excavation Method:	Hand Trowel/ Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10		0-15: SILT, moist, stiff, dark grayish brown, abundant plant matter (roots)
20		
30		
40		
50		
60		
70		
80		
90		

Notes

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP22-D-3
Job No:	210469-05.03: Task: 01	Date:	5/31/24
Field Staff:	EP/BB/BT	Time:	10:24
Attempt No:	1	Total Depth:	15cm
Excavation Method:	~~Hand Trowel~~ / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10		0-15cm: ~~Same as~~ Same as VP22-C-4
20		
30		
40		
50		
60		
70		
80		
90		

Notes

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP22-C-4
Job No:	210469-05.03: Task: 01	Date:	5/31/24
Field Staff:		Time:	1015
Attempt No:		Total Depth:	15 cm
Excavation Method:	Hand Trowel / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10		0-15: same as VP22-B-4/5, but all wet
20		
30		
40		
50		
60		
70		
80		
90		

Notes

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP22-B-4/5-PSBL
Job No:	210469-05.03: Task: 01	Date:	5/31/24
Field Staff:	EP/BB/BT	Time:	1003
Attempt No:	1	Total Depth:	15cm
Excavation Method:	~~Hand Trowel~~ / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10		0-10cm: SILT, damp, loose to stiff, dark grayish brown, abundant organic matter (roots) 10-15cm: grades to wet
20		
30		
40		
50		
60		
70		
80		
90		

Notes

Daily Safety Briefing Form

ANCHOR QEA

Date: 5/31/24
Project No: 210
Project Name: Housatonic Vernal Pools

Submit a Playing It Safe Event

Person Conducting Meeting: E. Patmont
Health & Safety Officer: T. Shaver
Project Manager: E. Patmont

TOPICS COVERED: *Highlighted topics are required*

- ☑ Emergency Procedures and Evacuation Route
- ☐ Directions to Hospital
- ☐ HASP Review and Location
- ☐ Safety Equipment Location
- ☐ Proper Safety Equipment Use
- ☐ Employee Right-to-Know/ SDS Location
- ☐ Fire Extinguisher Location
- ☐ Eye Wash Station Location
- ☑ Buddy System
- ☑ Self and Coworker Monitoring
- ☐ Lines of Authority
- ☑ Communication
- ☐ Site Security
- ☐ Vessel Safety Protocols
- ☑ Work Zones
- ☑ Vehicle Safety and Driving/ Road Conditions
- ☐ Equipment Safety and Operation
- ☐ Proper Use of PPE
- ☐ Decontamination Procedures
- ☐ Near Miss Reporting Procedures
- ☐ Lifting Techniques
- ☐ Slips, Trips, and Falls
- ☐ Hazard Exposure Routes
- ☐ Heat and Cold Stress
- ☐ Overhead and Underfoot Hazards
- ☐ Chemical Hazards
- ☐ Flammable Hazards
- ☐ Biological Hazards
- ☐ Eating/Drinking/Smoking
- ☐ Reviewed Prior Lessons Learned
- ☐ Field Team Medical Conditions for Emergency Purposes (Confidential): _____
- ☐ Other: _____

Weather Conditions: 70°F Sunny

Daily Work Scope: Vernal pool sampling VP22

Site-specific Hazards: slips, trips, and falls; biological hazards (ticks)

Safety Comments:

Attendees

Printed Name	Signature
E. Patmont	
Ben Thomas	Benjamin Thomas
Brian Barton	B Barton

End of Day Wellness Check

Daily Log

ANCHOR QEA

Anchor QEA, LLC
1201 3rd Avenue, Suite 2600
Seattle, WA 98101
Phone 206.287.9130

PROJECT NAME: Housatonic Vernal Pools - SPME Deployment **DATE:** 5/30/2024

SITE ADDRESS: 1 Plastics Ave, Pittsfield, MA, 01201 **PERSONNEL:** EP/BB/BT

WEATHER: **WIND FROM:**

N	NE	E	SE	S	SW	W	NW

SUNNY CLOUDY RAIN ?

LIGHT MEDIUM HEAVY

TEMPERATURE: °F . °C [Circle appropriate units]

TIME	COMMENTS
0800	EP, BB, & BT on site
0815	QC samples from yesterday and prep coolers for pick-up
0920	leave GE facility for Noblehurst
0940	On site at Noblehurst, EPA oversight already on site
1000	At VP-15 marking remaining locations
1015	EP left to pick up core tube for locations with overlying water
1055	EP returns to site, the following locations were completed
	- VP15-H-12: soil sample & SPME collected @ 10:17
	- VP15-I-15: soil sample & SPME collected @ 10:38
1105	Soil sample collected @ VP15-H-14, SPME deployed @ 1105
1119	Soil sample collected @ VP15-G-13, SPME deployed @ 1119
1200	Done at VP15, return to vehicle and mobilize to VP12
1215	Call security at Miss Hall's school to let them know we are sampling VP12
1230	At VP12, marking locations
1306	Soil sample collected @ VP12-B/C-4, SPME deployed @ 1306
1321	Soil sample collected @ VP12-SE000921, SPME deployed @ 1321
1325	Soil sample collected @ VP12-B-2/3, SPME deployed @ 1325
1338	Soil sample collected @ VP12-B/C-1/2, SPME deployed @ 1338
1345	Soil sample collected @ VP12-C/D-4
1415	Done at VP12, mobilize to vehicle
1430	Back at vehicle, mobilize to VP27
1447	At VP27, marking locations
1502	Soil sample collected @ VP27-E/F-6, SPME deployed @ 1502
1511	Soil sample collected @ VP27-F-5, SPME deployed @ 1511
1518	Soil sample collected @ VP27-F-4, SPME deployed @ 1518
1527	Done at VP27, mobilize to vehicle and back to GE facility.
1545	At GE facility, sample QC, and storage overnight
1620	AQ off site, done for the day

Signature: [signature]

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP27-F-4
Job No:	210469-05.03: Task: 01	Date:	5/30/24
Field Staff:	EP/BB/BT	Time:	1518
Attempt No:	1	Total Depth:	15cm
Excavation Method:	~~Hand Trowel~~ / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10		0-15cm: same as VP27-E/F-6 limited ground cover
20		
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70		
80		
90		

Notes

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP27-F-5
Job No:	210469-05.03: Task: 01	Date:	~~5/20~~ 5/30/24
Field Staff:	EP/BB/BT	Time:	511
Attempt No:	1	Total Depth:	15cm
Excavation Method:	Hand Trowel / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
		0-15cm: Same as VP27-E/F-6
10		Significant ground cover
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30		
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Notes

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP27-E/F-6
Job No:	210469-05.03: Task: 01	Date:	5/30/2024
Field Staff:	ED/BB/BT	Time:	1502
Attempt No:	1	Total Depth:	15 cm
Excavation Method:	Hand Trowel / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10		0-15cm: SILT, trace f-sand, moist, firm, trace plant matter (roots)
		Significant ground cover
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30		
40		
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60		
70		
80		
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Notes

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP17-B/C-4
Job No:	210469-05.03: Task: 01	Date:	5/30/24
Field Staff:		Time:	1345
Attempt No:		Total Depth:	15cm
Excavation Method:	Hand Trowel / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10		0-15 = SILT, Moist, firm, brownish gray, abundant plant matter (roots)
20		No overlying water
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60		
70		
80		
90		

Notes

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP12-B/C-1/2
Job No:	210469-05.03: Task: 01	Date:	5/30/24
Field Staff:		Time:	1338
Attempt No:		Total Depth:	15 cm
Excavation Method:	Hand Trowel / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10		0-15cm: Same as VP12-B/C-4 with trace wood (sticks)
20		1 inch
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Notes

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP12-B-2/3
Job No:	210469-05.03: Task: 01	Date:	5/30/24
Field Staff:		Time:	1326
Attempt No:		Total Depth:	15cm
Excavation Method:	Hand Trowel / ~~Core Tube~~	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10		~~0-15~~ 0-5cm: SILT, wet, loose, dark brownish gray, trace plant matter (roots) 5-15cm: grades to damp
20		less than 0.5 inch overlying water
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60		
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Notes

Moved location to an area w/ overlying water

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP12-SE000921
Job No:	210469-05.03: Task: 01	Date:	5/30/24
Field Staff:		Time:	1321
Attempt No:		Total Depth:	15
Excavation Method:	Hand Trowel / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10		0-15: Same as VP12-B/C-4, except trace woody debris & wet
20		5.5 inches of overlying water
30		
40		
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60		
70		
80		
90		

Notes

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP12-B/C-4
Job No:	210469-05.03: Task: 01	Date:	5/30/24
Field Staff:		Time:	1306
Attempt No:		Total Depth:	15cm
Excavation Method:	Hand Trowel / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10		0-15cm: SILT, trace f-sand, moist, loose, abundant plant matter (roots)
20		~~less than 0.5 inches overlying water~~
30		
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Notes

Slight sheen starting near location (potentially bacterial)

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP15-G-13
Job No:	210469-05.03: Task: 01	Date:	5/30/24
Field Staff:		Time:	1119
Attempt No:		Total Depth:	15cm
Excavation Method:	Hand Trowel / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10		0-3cm: Overlying peat layer 3-15cm: same as VP15-H-12
20		Overlying water: 4.5 inches
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Notes

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP15-H-14
Job No:	210469-05.03: Task: 01	Date:	5/30/24
Field Staff:		Time:	1105
Attempt No:		Total Depth:	15 cm
Excavation Method:	Hand Trowel / ~~Core Tube~~	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10		0-15 cm: Same as VP15-H-12 ~~if~~ Significant ground cover overlaction
20		Overlying water = ~~3.5 inches~~ 4.5 inches
30		
40		
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60		
70		
80		
90		

Notes

Ruler does not start at 0, add 1 inch to yesterdays measurements

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	UP15-I-15
Job No:	210469-05.03: Task: 01	Date:	5/30/24
Field Staff:		Time:	1038
Attempt No:		Total Depth:	
Excavation Method:	Hand Trowel / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10		0-15cm: same as UP15-H-12, but no peat layer
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Notes

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP15-H-12
Job No:	210469-05.03: Task: 01	Date:	5/30/24
Field Staff:		Time:	10:17
Attempt No:		Total Depth:	15cm
Excavation Method:	Hand Trowel / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10	Soil sample	Top: 1cm peat layer on top of sample 1-15cm: SILT, trace f-sand, wet, loose, dark brownish gray, trace plant matter.
20		No overlying water
30		
40		
50		
60		
70		
80		
90		

Notes

Daily Log

ANCHOR QEA

Anchor QEA, LLC
1201 3rd Avenue, Suite 2600
Seattle, WA 98101
Phone 206.287.9130

PROJECT NAME: Housatonic Vernal Pools - SPME Deployment **DATE:** 5/29/24

SITE ADDRESS: 1 Plastics Ave, Pittsfield, MA, 01201 **PERSONNEL:** EP/BB/BT

WEATHER: **WIND FROM:** ~~N~~ | NE | E | SE | S | SW | W | NW

~~SUNNY~~ CLOUDY RAIN ?

LIGHT | MEDIUM | HEAVY

TEMPERATURE: °F 65 .C °C [Circle appropriate units]

TIME	COMMENTS
0800	BB and BT on site
0810	EP on site
0820	Initial H&S tailgate and load equipment
0910	On site @ Noble Hurst waiting for oversight
0920	Scott Cambell on site
~~0930~~ 0940	At VP9 - marking locations
~~1040~~ 1050	Done marking locations @ VP9
1050	Soil sample collected @ VP9-W-17, SPME deployed @ ~~1101~~
1114	Soil sample collected @ VP9-V-15/16, SPME deployed @ 1114
1130	Soil sample collected @ FL000954, SPME deployed @ 1130
1159	Soil sample collected @ VP9-W-15, SPME deployed @ 1159
1209	Soil sample collected @ VP9-W/X-16, SPME deployed @ 1209
1228	Soil sample collected @ VP9-V/W-14, SPME deployed @ 1228
1245	Soil sample collected @ VP9-X-13, SPME deployed @ 1245
1301	Soil sample collected @ ~~VP9~~ VP9-W/X-13/14, SPME deployed @ 1301
1317	Soil sample collected @ VP9-X-14, SPME deployed @ 1317
1330	Soil sample collected @ VP9-X/Y-16, SPME deployed @ 1330
1400	Done at VP9
1430	Mobilize to VP15
1439	Mark locations at VP15
1440	Soil sample collected @ VP15-G/H-9, SPME deployed @ 1440
1449	Soil sample collected @ VP15-G-10, SPME deployed @ 1449
1501	Soil sample collected @ VP15-G-11, SPME deployed @ 1501
1512	Soil sample collected @ VP15-G-12, SPME deployed @ 1512
1520	Done at VP15 for the day, will return to finish
~~1540~~ 1525	Demobilize from VP15
1540	Return to GE facility
1600	Leave GE facility, done for the day.

Signature: _____

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VPIS-G-12
Job No:	210469-05.03: Task: 01	Date:	5/29/24
Field Staff:	EP/BT/BB	Time:	1512
Attempt No:	1	Total Depth:	15cm
Excavation Method:	~~Hand Trowel~~ / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10	Soil sample: 1512 SPME sample: 1512	0-15cm; same as VPIS-G-10
20	Sample depth: 0-15cm	2.5 inches of overlying water
30		
40		
50		
60		
70		
80		
90		

Notes

2.5 inches

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP15-G-11
Job No:	210469-05.03: Task: 01	Date:	5/29/24
Field Staff:	EP/BT/BB	Time:	1501
Attempt No:	1	Total Depth:	
Excavation Method:	~~Hand Trowel~~ / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10	Soil sample: 1501 SPME sample: 1501	0-15cm: Same as VP15-G/H-9
20	Sample depth 0-15cm	Abundant surface coverage (ground cover)
30		
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60		
70		
80		
90		

Notes

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VPIS-6-10
Job No:	210469-05.03: Task: 01	Date:	5/29
Field Staff:	EP/BT/BB	Time:	1449
Attempt No:		Total Depth:	15cm
Excavation Method:	~~Hand Trowel~~/ Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10	Soil sample: 1449 SPME sample: 1449	0-15cm: SILT, wet, loose, dark brownish gray, abundant plant matter (roots)
20	Sample depth: 0-15cm	2 inches of overlying water
30		
40		
50		
60		
70		
80		
90		

Notes

Field dup collected (FD1)

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP15-G/H-9
Job No:	210469-05.03: Task: 01	Date:	5/29/24
Field Staff:	EP/BT/BB	Time:	1440
Attempt No:	1	Total Depth:	15cm
Excavation Method:	~~Hand Trowel~~ / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10	Soil sample: 1440 SPME sample: 1440	SILT, very damp, loose, dark brownish gray, abundant plant matter (roots), abundant biota (worms)
20	Sample depth: 0-15cm	Abundant surface coverage (ground cover)
30		
40		
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60		
70		
80		
90		

Notes

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP9-X/V-16
Job No:	210469-05.03: Task: 01	Date:	5/29/24
Field Staff:	EP/BT/BB	Time:	1330
Attempt No:	1	Total Depth:	15 cm
Excavation Method:	~~Hand Trowel~~ / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
	Soil sample : 1330	same as VP9-X-13
10	SPME sample : 1330	Abundant ground cover
20	Sample depth: 0-15cm	
30		
40		
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70		
80		
90		

Notes

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP9-X-14
Job No:	210469-05.03: Task: 01	Date:	5/29/24
Field Staff:	EP/BT/BB	Time:	1317
Attempt No:	1	Total Depth:	15 cm
Excavation Method:	~~Hand Trowel~~ / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10	Soil sample: 1317 SPME sample: 1317	Same as VP9-X-13 slight ground cover
20	Sample depth: 0-15cm	
30		
40		
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60		
70		
80		
90		

Notes

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP9-W/X-13/14
Job No:	210469-05.03: Task: 01	Date:	5/29/24
Field Staff:	EP/DT/BB	Time:	1301
Attempt No:	1	Total Depth:	15 cm
Excavation Method:	~~Hand Trowel~~ / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10	Soil sample: 1301 SPME sample: 1301	Same as VP9-X-13 Slight ground cover
20	Sample depth: 0-15cm	
30		
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Notes

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP9-X-13
Job No:	210469-05.03: Task: 01	Date:	5/29/24
Field Staff:	EP/BT/BB	Time:	1245
Attempt No:	1	Total Depth:	15cm
Excavation Method:	Hand Trowel / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
	Soil sample : 1245	Same as ~~VP9-W~~ VP9-V/W-14
10	SPME sample : 1245	~~S~~ slight ground cover
20	Sample depth : 0-15cm	
30		
40		
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Notes

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP9-V/W-14
Job No:	210469-05.03: Task: 01	Date:	5/24/24
Field Staff:	EP/BT/BB	Time:	1228
Attempt No:	1	Total Depth:	15 cm
Excavation Method:	Hand Trowel / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10	Soil sample: 1228 SPME sample: 1228	0-15cm: SILT, trace f-sand, moist, loose, greyish-brown, trace biota (worm)
20	Sample depth: 0-15cm	
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Notes

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP4-W/X-16
Job No:	210469-05.03: Task: 01	Date:	5/29/24
Field Staff:	EP/BT/BB	Time:	1209
Attempt No:	1	Total Depth:	15 cm
Excavation Method:	(Hand Trowel) / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10	Soil sample = 1209 SPME sample = 1209	0-15: SILT, damp, loose, brownish gray trace biota (worm)
20	Sample depth 0-15 cm	No surface coverage but abundant canopy over top
30		
40		
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60		
70		
80		
90		

Notes

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	UP9-W-15
Job No:	210469-05.03: Task: 01	Date:	5/29/24
Field Staff:	EP/BT/BB	Time:	1159
Attempt No:	1	Total Depth:	15cm
Excavation Method:	(Hand Trowel) / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10	Soil sample: 1159 SPME sample: 1159	Same as UP9-W/X-16
20	Sample depth: 0-15cm	
30		
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60		
70		
80		
90		

Notes

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	FL0059.54
Job No:	210469-05.03: Task: 01	Date:	5/29/24
Field Staff:	EP/BT/BB	Time:	1130
Attempt No:	1	Total Depth:	15 cm
Excavation Method:	Hand Trowel / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
	Soil Sample = 1130	Same as VP9-V-15/16
10	SPME Sample = 1130	
20	Sample depth = 0-15cm	
30		
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60		
70		
80		
90		

Notes

VP9-V/X-16

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP9-V-15/16
Job No:	210469-05.03: Task: 01	Date:	5/29/24
Field Staff:	EP/BT/BB	Time:	1114
Attempt No:	1	Total Depth:	~~6 inches~~ 15cm
Excavation Method:	Hand Trowel / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10	Soil sample = 1114 SPME sample = 1114	little to no surface cover Same as VP9-W-17
20	Sample depth: 0-15 cm	
30		
40		
50		
60		
70		
80		
90		

Notes

VERNAL POOL SAMPLE COLLECTION LOG

Job Name:	Housatonic Vernal Pool	Station:	VP9-W-17
Job No:	210469-05.03: Task: 01	Date:	5/29/24
Field Staff:	EP/BT/BB	Time:	~~0950~~ 1050
Attempt No:	1	Total Depth:	~~6 inches~~ 15cm
Excavation Method:	Hand Trowel / Core Tube	NORTHING:	EASTING:

DEPTH SAMPLED (cm)	SAMPLE	CLASSIFICATION AND REMARKS (MAJOR Constituent, Minor Constituent, Moisture, Density, Color, Additional Constituents, Sheen, Odor)
10	Soil sample = ~~0950~~ 1050 SPME sample = 1050	0-15cm: SILT, trace f-sand, moist, loose, grayish brown, abundant organic matter, trace biota (worms), no odor, no sheen
20	Sample depth 0-15cm	surface covered with ~~sannot~~ small ground cover
30		
40		
50		
60		
70		
80		
90		

Notes

Daily Log

ANCHOR QEA

Anchor QEA, LLC
1201 3rd Avenue, Suite 2600
Seattle, WA 98101
Phone 206.287.9130

PROJECT NAME: Housatonic River - Vernal Pool Soil Collection **DATE:**

SITE ADDRESS: **PERSONNEL:**

WEATHER: **WIND FROM:** N | NE | E | SE | S | SW | W | NW

SUNNY | CLOUDY | RAIN | ?

LIGHT | MEDIUM | HEAVY

TEMPERATURE: °F . °C

[Circle appropriate units]

TIME	COMMENTS
	VP15-H-12-BST: 1000 AM
11/1/23	VP15-I-15-BST: 1100 AM
	VP12-B-C-1/2-BST: 330 PM
	VP12-B-2/3-1-BST: 4PM
10/31/23	VP9-V-W-14-BST: 11:45AM
	VP9-X-14-BST: 1:25 PM
	VP9-X-Y-16-BST: 200PM
	P# 210469-0.5.02; last 05
11/2/23	VP22-B-4-5-BST @ 1000 AM
	VP22-D-3-BST @ 1100 AM
	VD27-F-5-BST @ 1215 PM
	TS-BW1 @ 1430 PM

Signature: _____

Daily Log

ANCHOR QEA

Anchor QEA, LLC
1201 3rd Avenue, Suite 2600
Seattle, WA 98101
Phone 206.287.9130

PROJECT NAME: Housatonic River - Vernal Pool Soil Collection **DATE:** 11/2/23

SITE ADDRESS: **PERSONNEL:** EP/BT

WEATHER: **WIND FROM:** N | NE | E | SE | S | SW | W | NW

(SUNNY) | CLOUDY | RAIN | ?

LIGHT | MEDIUM | HEAVY

TEMPERATURE: °F 36 .C °C [Circle appropriate units]

TIME	COMMENTS
0600	BT on site
0525	EP on site, loading vehicle w/ sampling gear
0900	Mobilize to Cannoe Meadows
0915	Arrive at Cannoe Meadows and mobilize to VP22 & VP 27
0936	Arrive at VP 22, notified EPA oversight (will be on site after 1000)
0940	Mark locations for VP22-B-4-5-BST and VP22-D-3-BST
1000	Start sampling @ VP22-B-4-5-BST
1015	Took photos of VP22
1100	Start sampling @ VP22-D-3-BST
1152	Finished sampling @ VP22, Mobilize to VP27
1215	At VP 27, took photos
1215	Start sampling @ VP27-F-5-BST
1230	Finished at VP27, mobilize back to Cannoe Meadows
1250	Load soil into truck and break for lunch
1400	Return to Cannoe meadows, mobilize to BW5A-1
1430	At BW5A-1, start sampling @ TS-BW1
1530	Finished at BW5A-1, mobilize back to Cannoe Meadows
1555	Back at Cannoe Meadows, ~~mobil~~ mob back to GE
1620	Arrive at GE facility, pack samples into coolers
1730	BT off site
1745	EP off site

Signature: _____

Daily Safety Briefing Form

ANCHOR QEA

Date: 11/1/2023
Project No:
Project Name: Housatonic - Vernal Pool

Submit a Playing It Safe Event

Person Conducting Meeting: E. Patmont
Health & Safety Officer:
Project Manager:

TOPICS COVERED: *Highlighted topics are required*

- ☐ Emergency Procedures and Evacuation Route
- ☐ Directions to Hospital
- ☐ HASP Review and Location
- ☐ Safety Equipment Location
- ☐ Proper Safety Equipment Use
- ☐ Employee Right-to-Know/ SDS Location
- ☐ Fire Extinguisher Location
- ☐ Eye Wash Station Location
- ☑ Buddy System
- ☐ Self and Coworker Monitoring
- ☐ Lines of Authority
- ☐ Communication
- ☐ Site Security
- ☐ Vessel Safety Protocols
- ☑ Work Zones
- ☐ Vehicle Safety and Driving/ Road Conditions
- ☐ Equipment Safety and Operation
- ☐ Proper Use of PPE
- ☐ Decontamination Procedures
- ☐ Near Miss Reporting Procedures
- ☐ Lifting Techniques
- ☑ Slips, Trips, and Falls
- ☑ Hazard Exposure Routes
- ☑ Heat and Cold Stress
- ☐ Overhead and Underfoot Hazards
- ☐ Chemical Hazards
- ☐ Flammable Hazards
- ☐ Biological Hazards
- ☐ Eating/Drinking/Smoking
- ☐ Reviewed Prior Lessons Learned
- ☐ Field Team Medical Conditions for Emergency Purposes (Confidential):
- ☐ Other:

Weather Conditions: 40°F Snowy

Daily Work Scope: Collect soils from vernal pools

Site-specific Hazards:

Safety Comments:

Attendees

Printed Name	Signature
E. Patmont	
B. Thomas	
E. Mauro	

End of Day Wellness Check

PLAYING IT SAFE

Daily Safety Briefing Form

ANCHOR QEA

Date: 10/31/2023
Project No:
Project Name: Housatonic - vernal pool

Submit a Playing It Safe Event

Person Conducting Meeting: E. Putnam **Health & Safety Officer:** **Project Manager:**

TOPICS COVERED: *Highlighted topics are required*

- ☑ Emergency Procedures and Evacuation Route
- ☑ Directions to Hospital
- ☑ HASP Review and Location
- ☐ Safety Equipment Location
- ☐ Proper Safety Equipment Use
- ☐ Employee Right-to-Know/ SDS Location
- ☐ Fire Extinguisher Location
- ☐ Eye Wash Station Location
- ☑ Buddy System
- ☑ Self and Coworker Monitoring
- ☐ Lines of Authority
- ☑ Communication
- ☑ Site Security
- ☐ Vessel Safety Protocols
- ☑ Work Zones
- ☐ Vehicle Safety and Driving/ Road Conditions
- ☐ Equipment Safety and Operation
- ☐ Proper Use of PPE
- ☐ Decontamination Procedures
- ☐ Near Miss Reporting Procedures
- ☐ Lifting Techniques
- ☑ Slips, Trips, and Falls
- ☐ Hazard Exposure Routes
- ☑ Heat and Cold Stress
- ☐ Overhead and Underfoot Hazards
- ☑ Chemical Hazards
- ☐ Flammable Hazards
- ☐ Biological Hazards
- ☑ Eating/Drinking/Smoking
- ☐ Reviewed Prior Lessons Learned
- ☐ Field Team Medical Conditions for Emergency Purposes (Confidential):
- ☐ Other:

Weather Conditions: 40 °F sunny

Daily Work Scope: Collect vernal pool soil

Site-specific Hazards:

Safety Comments:

Attendees

Printed Name	Signature
E. Putnam	
E. Munro	
B. Thomas	

End of Day Wellness Check

PLAYING IT SAFE

Daily Safety Briefing Form

ANCHOR QEA

Date: 11/2/2023
Project No:
Project Name: Housatonic - Vernal pools

Submit a Playing It Safe Event

Person Conducting Meeting: E. Patmont
Health & Safety Officer:
Project Manager:

TOPICS COVERED: *Highlighted topics are required*

- ☐ Emergency Procedures and Evacuation Route
- ☐ Directions to Hospital
- ☐ HASP Review and Location
- ☐ Safety Equipment Location
- ☐ Proper Safety Equipment Use
- ☐ Employee Right-to-Know/ SDS Location
- ☐ Fire Extinguisher Location
- ☐ Eye Wash Station Location
- ☐ Buddy System
- ☐ Self and Coworker Monitoring
- ☐ Lines of Authority
- ☐ Communication
- ☐ Site Security
- ☐ Vessel Safety Protocols
- ☐ Work Zones
- ☑ Vehicle Safety and Driving/ Road Conditions
- ☐ Equipment Safety and Operation
- ☐ Proper Use of PPE
- ☐ Decontamination Procedures
- ☐ Near Miss Reporting Procedures
- ☑ Lifting Techniques
- ☑ Slips, Trips, and Falls
- ☐ Hazard Exposure Routes
- ☑ Heat and Cold Stress
- ☐ Overhead and Underfoot Hazards
- ☐ Chemical Hazards
- ☐ Flammable Hazards
- ☐ Biological Hazards
- ☐ Eating/Drinking/Smoking
- ☐ Reviewed Prior Lessons Learned
- ☐ Field Team Medical Conditions for Emergency Purposes (Confidential):
- ☐ Other:

Weather Conditions: 35° F, sunny

Daily Work Scope: Vernal pool sampling

Site-specific Hazards:

Safety Comments:

Attendees

Printed Name	Signature
E. Patmont	
B. Thomas	Benjamin Thomas

End of Day Wellness Check

PLAYING IT SAFE

Attachment B
Analytical Data Summary Tables

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP12-B/C-1/2	VP12-B/C-4	VP12-B-2/3	VP12-C/D-4	VP12-C-3	VP15-G/H-9	VP15-G-10	VP15-G-10
	Sample ID	VP12-B/C-1/2-PSBL-SED	VP12-B/C-4-PSBL-SED	VP12-B-2/3-PSBL-SED	VP12-C/D-4-PSBL-SED	VP12-C-3-PSBL-SED	VP15-G/H-9-PSBL-SED	VP15-FD-1	VP15-G-10-PSBL-SED
	Sample Date	5/30/2024	5/30/2024	5/30/2024	5/30/2024	5/30/2024	5/29/2024	5/29/2024	5/29/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	FD	N
	Matrix	SO	SO	SO	SO	SO	SO	SO	SO
Conventional Parameters (pct)									
Total organic carbon	LloydKahn	**6.8**	**5.42**	**6.41**	**8.55**	**9.36**	**7.21**	**8.47**	**8.53**
Total solids	SM2540G	**44.5**	**50.3**	**45.1**	**38.8**	**32.7**	**51.8**	**35.7**	**29.8**
PCB Aroclors (mg/kg)									
Aroclor 1016	SW8082A	0.044 U	0.040 U	0.044 U	0.052 U	0.061 U	0.038 U	0.052 U	0.066 U
Aroclor 1221	SW8082A	0.044 U	0.040 U	0.044 U	0.052 U	0.061 U	0.038 U	0.052 U	0.066 U
Aroclor 1232	SW8082A	0.044 U	0.040 U	0.044 U	0.052 U	0.061 U	0.038 U	0.052 U	0.066 U
Aroclor 1242	SW8082A	0.044 U	0.040 U	0.044 U	0.052 U	0.061 U	0.038 U	0.052 U	0.066 U
Aroclor 1248	SW8082A	0.044 U	0.040 U	0.044 U	0.052 U	0.061 U	0.038 U	0.052 U	0.066 U
Aroclor 1254	SW8082A	0.044 U	0.040 U	0.044 U	0.052 U	0.061 U	0.038 U	0.052 U	0.066 U
Aroclor 1260	SW8082A	**4.67**	**3.47**	**1.58**	**4.4**	**1.91**	**4.92**	**7.98 J**	**3.26 J**
Total PCB Aroclors (U = 0 max limit)		**4.67**	**3.47**	**1.58**	**4.4**	**1.91**	**4.92**	**7.98 J**	**3.26 J**
PCB Congeners (mg/kg)									
PCB-001	E1668C	**0.000152**	**0.000167**	**0.000139 J**	**0.000161**	**0.000136**	**0.0000794**	**0.000173**	**0.000154**
PCB-002	E1668C	**0.0000238 J**	**0.000111**	0.0000122 U	**0.000024 J**	**0.0000221 J**	**0.00002 J**	**0.0000222 J**	**0.0000292 J**
PCB-003	E1668C	**0.000111**	**0.00012 J**	**0.0000886**	**0.0000957**	**0.0000722**	**0.0000508 J**	**0.0000755 J**	**0.0000872 J**
PCB-004	E1668C	**0.00161**	**0.00135**	**0.00203**	**0.00176**	**0.00157**	**0.000883**	**0.00148 J**	**0.00277 J**
PCB-005	E1668C	0.0000199 U	0.0000198 U	0.0000182 U	0.0000293 U	0.0000226 U	0.0000177 U	0.000021 U	**0.0000303**
PCB-006	E1668C	**0.000968**	**0.00044**	**0.000646**	**0.000502 J**	**0.000443 J**	**0.000617**	**0.000633**	**0.000946**
PCB-007	E1668C	**0.0000605**	**0.0000474**	**0.0000465**	**0.0000447**	**0.0000407**	**0.0000426**	**0.0000645**	**0.0000866**
PCB-008	E1668C	**0.00168**	**0.00098**	**0.00114**	**0.00106**	**0.000815**	**0.00136**	**0.00129**	**0.00193**
PCB-009	E1668C	**0.000105**	**0.0000559 J**	**0.0000908**	**0.0000868**	**0.0000517**	**0.0000731 J**	**0.0000936**	**0.000111**
PCB-010	E1668C	**0.0000732**	**0.0000508 J**	**0.0000754**	**0.0000781**	**0.000052**	**0.0000392**	**0.00008 J**	**0.00014 J**
PCB-011	E1668C	**0.0000811 J**	**0.0000765**	**0.0000875**	**0.0000865**	**0.0000518**	**0.0000802**	**0.0000728**	**0.0000645**
PCB-012/013	E1668C	**0.000597**	**0.000286**	**0.000385**	**0.000293**	**0.000355**	**0.000228**	**0.000261**	**0.00038**
PCB-014	E1668C	0.000020 U	0.0000194 U	0.0000182 U	0.0000294 U	0.0000227 U	0.0000171 U	0.0000203 U	0.0000276 U
PCB-015	E1668C	**0.00493**	**0.00156**	**0.00275**	**0.00316**	**0.00217**	**0.00182**	**0.00209**	**0.00275**
PCB-016	E1668C	**0.00108**	**0.000872**	**0.000888**	**0.000733**	**0.000452**	**0.000935**	**0.00116**	**0.00144**
PCB-017	E1668C	**0.0067**	**0.0018**	**0.00239**	**0.00208**	**0.00176**	**0.00141**	**0.00229**	**0.00257**
PCB-018/030	E1668C	**0.0059**	**0.00194**	**0.00256**	**0.0019**	**0.00129**	**0.00201**	**0.00298**	**0.0035**
PCB-019	E1668C	**0.00405**	**0.000962**	**0.00127**	**0.0011**	**0.00116**	**0.000544**	**0.00127**	**0.00162**
PCB-020/028	E1668C	**0.0247 J**	**0.00325**	**0.00726**	**0.00592**	**0.00623**	**0.00496**	**0.00685**	**0.00641**
PCB-021/033	E1668C	**0.0108**	**0.00102**	**0.00175**	**0.00158**	**0.00187**	**0.00107**	**0.00373**	**0.00302**
PCB-022	E1668C	**0.00169**	**0.000729**	**0.000892**	**0.0008**	**0.000642**	**0.000987**	**0.0011**	**0.00117**
PCB-023	E1668C	0.000054 U	0.0000238 U	0.0000627 U	0.0000442 U	0.0000387 U	0.0000202 U	0.0000429 U	0.0000389 U
PCB-024	E1668C	0.0000143 U	**0.0000439**	**0.000061 J**	**0.0000322 J**	0.0000149 U	**0.0000349**	**0.0000697**	**0.0000558 J**
PCB-025	E1668C	**0.0117 J**	**0.00133**	**0.00296**	**0.00206**	**0.0025**	**0.000985**	**0.00456**	**0.00362**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP12-B/C-1/2	VP12-B/C-4	VP12-B-2/3	VP12-C/D-4	VP12-C-3	VP15-G/H-9	VP15-G-10	VP15-G-10
	Sample ID	VP12-B/C-1/2-PSBL-SED	VP12-B/C-4-PSBL-SED	VP12-B-2/3-PSBL-SED	VP12-C/D-4-PSBL-SED	VP12-C-3-PSBL-SED	VP15-G/H-9-PSBL-SED	VP15-FD-1	VP15-G-10-PSBL-SED
	Sample Date	5/30/2024	5/30/2024	5/30/2024	5/30/2024	5/30/2024	5/29/2024	5/29/2024	5/29/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	FD	N
	Matrix	SO	SO	SO	SO	SO	SO	SO	SO
PCB-026/029	E1668C	**0.0127**	**0.00315**	**0.00575**	**0.00406**	**0.00446**	**0.00266**	**0.00514**	**0.00421**
PCB-027	E1668C	**0.00886 J**	**0.000783**	**0.00218**	**0.00111**	**0.00114**	**0.000587**	**0.00196**	**0.00208**
PCB-031	E1668C	**0.0105 J**	**0.00257**	**0.0043**	**0.00365**	**0.00363**	**0.00352**	**0.00451**	**0.00418**
PCB-032	E1668C	**0.0227 J**	**0.00112**	**0.00315**	**0.00174**	**0.0021**	**0.0012**	**0.00417**	**0.00402**
PCB-034	E1668C	**0.000557**	0.0000243 U	**0.000128**	**0.0000634 J**	**0.000255**	0.0000202 U	**0.000136**	**0.0000907**
PCB-035	E1668C	**0.000194**	**0.0000684**	**0.0000997**	**0.000085**	**0.0000986 J**	**0.0000736 J**	**0.000127**	**0.000107**
PCB-036	E1668C	0.0000473 U	0.0000207 U	0.000055 U	0.0000388 U	0.0000339 U	0.0000176 U	0.0000375 U	0.000034 U
PCB-037	E1668C	**0.00274**	**0.00105**	**0.00183**	**0.00212**	**0.00147**	**0.00164**	**0.00221**	**0.00194**
PCB-038	E1668C	**0.000271 J**	0.0000228 U	0.0000615 U	0.0000434 U	**0.0000511 J**	0.000019 U	**0.000152**	**0.000132**
PCB-039	E1668C	0.0000528 U	0.000023 U	0.0000614 U	0.0000433 U	0.0000379 U	**0.0000334 J**	0.0000405 U	0.0000368 U
PCB-040/071	E1668C	**0.0971 J**	**0.00264**	**0.0135**	**0.00987**	**0.0155**	**0.00406**	**0.0335 J**	**0.0358 J**
PCB-041	E1668C	0.0000313 U	**0.000207**	0.0000234 U	**0.000238**	0.0000142 U	**0.000233**	0.0000202 U	0.0000242 U
PCB-042	E1668C	**0.0448 J**	**0.00269**	**0.00917 J**	**0.0083**	**0.0104**	**0.00315**	**0.0126 J**	**0.0137 J**
PCB-043	E1668C	0.0000249 U	**0.000162**	**0.000723**	**0.000391**	**0.000662**	**0.000366**	0.0000166 U	0.0000199 U
PCB-044/047/065	E1668C	**0.879 J**	**0.0306 J**	**0.165 J**	**0.155 J**	**0.189 J**	**0.0271 J**	**0.413 J**	**0.447 J**
PCB-045	E1668C	0.0000354 U	**0.00042**	**0.000574**	**0.0013**	**0.00108**	**0.000743**	**0.000629 J**	0.000027 UJ
PCB-046	E1668C	**0.0164 J**	**0.000407**	**0.00147**	**0.000846**	**0.00195**	**0.000399**	**0.00268**	**0.00325**
PCB-048	E1668C	**0.00223**	**0.000578**	**0.00114**	**0.000821**	**0.000894**	**0.000787**	**0.00121**	**0.0017**
PCB-049/069	E1668C	**0.598 J**	**0.0448 J**	**0.166 J**	**0.128 J**	**0.131 J**	**0.0448 J**	**0.276 J**	**0.297 J**
PCB-050/053	E1668C	**0.269 J**	**0.00332**	**0.0302 J**	**0.0191**	**0.0355 J**	**0.00363**	**0.0985 J**	**0.102 J**
PCB-051	E1668C	**0.274 J**	**0.00199**	**0.0177 J**	**0.00844**	**0.0257 J**	**0.00175**	**0.0687 J**	**0.0711 J**
PCB-052	E1668C	**0.423 J**	**0.0591 J**	**0.162 J**	**0.131 J**	**0.121 J**	**0.0679 J**	**0.177 J**	**0.188 J**
PCB-054	E1668C	**0.0481 J**	**0.000324**	**0.00432**	**0.0016**	**0.00553**	**0.00032**	**0.00865**	**0.00683**
PCB-055	E1668C	0.000501 U	0.000248 U	0.000354 U	0.000328 U	0.000141 U	0.000191 U	0.000497 U	0.000339 U
PCB-056	E1668C	**0.00894 J**	**0.00553**	**0.00619**	**0.00587**	**0.00398**	**0.00438**	**0.00574**	**0.0063**
PCB-057	E1668C	0.000579 U	0.000283 U	0.00041 U	0.000379 U	**0.000288**	0.000207 U	0.000538 U	**0.000548**
PCB-058	E1668C	0.000518 U	0.000249 U	0.000366 U	0.000339 U	0.000146 U	**0.000223**	**0.000835**	**0.00106**
PCB-059/062/075	E1668C	**0.0305 J**	**0.00259**	**0.00863**	**0.00628**	**0.00652**	**0.00214**	**0.0122**	**0.0119**
PCB-060	E1668C	0.000657 U	**0.00134**	**0.00117**	**0.00113**	**0.000922**	**0.00175**	**0.00147**	**0.00171**
PCB-061/070/074/076	E1668C	**0.106 J**	**0.0456 J**	**0.07 J**	**0.0578 J**	**0.0434**	**0.0475 J**	**0.0658 J**	**0.0684 J**
PCB-063	E1668C	**0.00494**	**0.000741**	**0.00185**	**0.00101**	**0.00133**	**0.000918**	**0.00165**	**0.00173**
PCB-064	E1668C	**0.0205 J**	**0.00841 J**	**0.0134 J**	**0.0106**	**0.00868**	**0.0102 J**	**0.0138 J**	**0.0151 J**
PCB-066	E1668C	**0.133 J**	**0.0288 J**	**0.0665 J**	**0.0531 J**	**0.0391 J**	**0.0242 J**	**0.0504 J**	**0.0524 J**
PCB-067	E1668C	**0.00474**	**0.000465**	**0.00156**	**0.00114**	**0.0012**	**0.000371 J**	**0.00229**	**0.00212 J**
PCB-068	E1668C	**0.0211 J**	**0.00242**	**0.00803**	**0.00526**	**0.00564**	**0.0019**	**0.0084**	**0.00891**
PCB-072	E1668C	**0.0143 J**	**0.00307**	**0.00828**	**0.00564**	**0.00533**	**0.00274**	**0.00709**	**0.00759**
PCB-073	E1668C	**0.0267 J**	**0.00146**	**0.00673**	**0.0049**	**0.00508**	**0.000893**	**0.0129 J**	**0.0146 J**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP12-B/C-1/2	VP12-B/C-4	VP12-B-2/3	VP12-C/D-4	VP12-C-3	VP15-G/H-9	VP15-G-10	VP15-G-10
	Sample ID	VP12-B/C-1/2-PSBL-SED	VP12-B/C-4-PSBL-SED	VP12-B-2/3-PSBL-SED	VP12-C/D-4-PSBL-SED	VP12-C-3-PSBL-SED	VP15-G/H-9-PSBL-SED	VP15-FD-1	VP15-G-10-PSBL-SED
	Sample Date	5/30/2024	5/30/2024	5/30/2024	5/30/2024	5/30/2024	5/29/2024	5/29/2024	5/29/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	FD	N
	Matrix	SO	SO	SO	SO	SO	SO	SO	SO
PCB-077	E1668C	**0.0042**	**0.00352**	**0.00288**	**0.00319**	**0.00212**	**0.00228**	**0.0028**	**0.00267**
PCB-078	E1668C	0.000623 U	0.000303 U	0.00044 U	0.000408 U	0.000176 U	0.000217 U	0.000564 U	0.000385 U
PCB-079	E1668C	**0.00381**	**0.00119**	**0.0025**	**0.00196**	**0.00158**	**0.00116**	**0.00203**	**0.0022**
PCB-080	E1668C	0.000536 U	0.000268 U	0.000379 U	0.000351 U	0.000151 U	0.000198 U	0.000515 U	0.000352 U
PCB-081	E1668C	0.000547 U	0.000261 U	0.000387 U	0.000358 U	0.000154 U	0.000192 U	0.000499 U	0.00034 U
PCB-082	E1668C	**0.0289 J**	**0.0211 J**	**0.0217 J**	**0.0174 J**	**0.0165 J**	**0.0146 J**	**0.0193 J**	**0.0197 J**
PCB-083	E1668C	**0.027 J**	**0.0115 J**	**0.0203 J**	0.00231 U	**0.0196 J**	**0.00934 J**	**0.018 J**	**0.0235 J**
PCB-084	E1668C	**0.0978 J**	**0.0313 J**	**0.0533 J**	**0.0419 J**	**0.0447 J**	**0.0288 J**	**0.0528 J**	**0.0551 J**
PCB-085/116	E1668C	**0.0815 J**	**0.0796 J**	**0.0728 J**	**0.0575 J**	**0.0505 J**	**0.0777 J**	**0.0629 J**	**0.0712 J**
PCB-086/087/097/109/119/125	E1668C	**0.375 J**	**0.226 J**	**0.257 J**	**0.201 J**	**0.185 J**	**0.211 J**	**0.287 J**	**0.297 J**
PCB-088	E1668C	0.00322 U	0.00156 U	0.0021 U	0.00192 U	0.0016 U	0.00142 U	0.00251 U	0.00254 U
PCB-089	E1668C	0.00296 U	0.00127 U	0.00193 U	0.00177 U	0.00147 U	0.00125 U	0.0022 U	0.00222 U
PCB-090/101/113	E1668C	**1.07 J**	**0.72 J**	**0.729 J**	**0.618 J**	**0.516 J**	**0.691 J**	**0.975 J**	**1.02 J**
PCB-091	E1668C	**0.421 J**	**0.0738 J**	**0.159 J**	**0.138 J**	**0.114 J**	**0.0602 J**	**0.414 J**	**0.43 J**
PCB-092	E1668C	**0.33 J**	**0.15 J**	**0.206 J**	**0.155 J**	**0.148 J**	**0.156 J**	**0.322 J**	**0.335 J**
PCB-093/100	E1668C	**0.215 J**	**0.0205 J**	**0.0559 J**	**0.0441 J**	**0.0427 J**	**0.00868**	**0.128 J**	**0.135 J**
PCB-094	E1668C	**0.0846 J**	**0.00445**	**0.0174 J**	**0.0147 J**	**0.0147 J**	**0.00212**	**0.0646 J**	**0.0666 J**
PCB-095	E1668C	**0.658 J**	**0.384 J**	**0.471 J**	**0.386 J**	**0.344 J**	**0.358 J**	**0.598 J**	**0.61 J**
PCB-096	E1668C	**0.0503 J**	**0.0014**	**0.00875 J**	**0.0076**	**0.0112**	**0.000937**	**0.0398 J**	**0.0355 J**
PCB-098	E1668C	**0.00686**	0.00125 U	**0.00163**	0.00152 U	0.00126 U	0.00106 U	**0.00393 J**	0.00188 UJ
PCB-099	E1668C	**0.485 J**	**0.256 J**	**0.297 J**	**0.228 J**	**0.198 J**	**0.254 J**	**0.469 J**	**0.484 J**
PCB-102	E1668C	**0.0587 J**	**0.00511**	**0.0146 J**	**0.0133 J**	**0.0143 J**	**0.00415**	**0.0451 J**	**0.0523 J**
PCB-103	E1668C	**0.11 J**	**0.0175 J**	**0.0373 J**	**0.0278 J**	**0.025 J**	**0.0116 J**	**0.0886 J**	**0.0916 J**
PCB-104	E1668C	**0.0176 J**	**0.000506**	**0.00258**	**0.00145**	**0.00366**	**0.000222**	**0.00425**	**0.00403**
PCB-105	E1668C	**0.127 J**	**0.12 J**	**0.164 J**	**0.078 J**	**0.0793 J**	**0.112 J**	**0.114 J**	**0.104 J**
PCB-106	E1668C	0.00207 U	0.000913 U	0.00135 U	0.00123 U	0.00103 U	0.000879 U	0.00155 U	0.00157 U
PCB-107	E1668C	**0.0457 J**	**0.0301 J**	**0.0315 J**	**0.0234 J**	**0.0222 J**	**0.0297 J**	**0.034 J**	**0.035 J**
PCB-108/124	E1668C	**0.0164**	**0.0195 J**	**0.0142**	**0.0116**	**0.00959**	**0.0189 J**	**0.0138**	**0.0143**
PCB-110	E1668C	**0.723 J**	**0.64 J**	**0.575 J**	**0.44 J**	**0.409 J**	**0.643 J**	**0.677 J**	**0.702 J**
PCB-111	E1668C	**0.0032**	0.000888 U	0.00135 U	0.00124 U	0.00103 U	0.00092 U	**0.00306**	**0.00307**
PCB-112	E1668C	0.0019 U	0.000803 U	0.00124 U	0.00113 U	0.000944 U	0.00079 U	0.00139 U	0.00141 U
PCB-114	E1668C	**0.0058**	**0.00429**	**0.00576**	**0.00352**	**0.0029**	**0.00418**	**0.00617**	**0.0065**
PCB-115	E1668C	0.00189 U	0.000769 U	0.00124 U	0.00113 U	0.000942 U	0.00075 U	0.00132 U	0.00134 U
PCB-117	E1668C	**0.0408 J**	**0.013 J**	**0.0161 J**	**0.0117 J**	**0.00952**	**0.0125 J**	**0.0313 J**	**0.0301 J**
PCB-118	E1668C	**0.452 J**	**0.337 J**	**0.457 J**	**0.262 J**	**0.289 J**	**0.324 J**	**0.35 J**	**0.355 J**
PCB-120	E1668C	**0.0107 J**	**0.00377**	**0.00658**	**0.00453**	**0.00464**	**0.00353**	**0.00978**	**0.0102**
PCB-121	E1668C	**0.00455**	**0.00101**	**0.0016**	0.00116 U	0.000967 U	0.000838 U	**0.00322**	**0.00346**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP12-B/C-1/2	VP12-B/C-4	VP12-B-2/3	VP12-C/D-4	VP12-C-3	VP15-G/H-9	VP15-G-10	VP15-G-10
	Sample ID	VP12-B/C-1/2-PSBL-SED	VP12-B/C-4-PSBL-SED	VP12-B-2/3-PSBL-SED	VP12-C/D-4-PSBL-SED	VP12-C-3-PSBL-SED	VP15-G/H-9-PSBL-SED	VP15-FD-1	VP15-G-10-PSBL-SED
	Sample Date	5/30/2024	5/30/2024	5/30/2024	5/30/2024	5/30/2024	5/29/2024	5/29/2024	5/29/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	FD	N
	Matrix	SO	SO	SO	SO	SO	SO	SO	SO
PCB-122	E1668C	**0.00537**	**0.00468**	**0.0061**	**0.00399**	**0.00363**	**0.00489**	**0.00455**	**0.00526**
PCB-123	E1668C	**0.00805**	**0.0104 J**	**0.00716**	**0.00587**	**0.00404**	**0.00755**	**0.00566**	**0.00664**
PCB-126	E1668C	**0.00136**	**0.00101**	**0.00116**	**0.000711**	**0.000774**	**0.000823**	**0.00128**	**0.00112**
PCB-127	E1668C	0.0032 U	0.000615 U	0.00196 U	0.00132 U	0.00144 U	0.000724 U	0.00125 U	0.00129 U
PCB-128/166	E1668C	**0.24 J**	**0.151 J**	**0.213 J**	**0.174 J**	**0.159 J**	**0.208 J**	**0.267 J**	**0.225 J**
PCB-129/138/163	E1668C	**0.845 J**	**0.772 J**	**0.99 J**	**0.844 J**	**0.839 J**	**0.9 J**	**1.23 J**	**1.37 J**
PCB-130	E1668C	**0.0469 J**	**0.0325 J**	**0.0538 J**	**0.0415 J**	**0.0468 J**	**0.0421 J**	**0.0672 J**	**0.072 J**
PCB-131	E1668C	**0.00433**	**0.00388**	**0.00531**	**0.00496**	**0.00498**	**0.00394**	**0.00613**	**0.00612**
PCB-132	E1668C	**0.202 J**	**0.183 J**	**0.245 J**	**0.206 J**	**0.211 J**	**0.198 J**	**0.311 J**	**0.327 J**
PCB-133	E1668C	**0.0228 J**	**0.0121 J**	**0.0204 J**	**0.0161 J**	**0.0163 J**	**0.0136 J**	**0.0326 J**	**0.0361 J**
PCB-134	E1668C	**0.0445 J**	**0.0351 J**	**0.048 J**	**0.0393 J**	**0.0402 J**	**0.0349 J**	**0.0714 J**	**0.0759 J**
PCB-135/151	E1668C	**0.409 J**	**0.36 J**	**0.442 J**	**0.384 J**	**0.362 J**	**0.345 J**	**0.681 J**	**0.731 J**
PCB-136	E1668C	**0.414 J**	**0.209 J**	**0.344 J**	**0.245 J**	**0.191 J**	**0.209 J**	**0.473 J**	**0.449 J**
PCB-137	E1668C	**0.016 J**	**0.0117 J**	**0.0208 J**	**0.0174 J**	**0.012 J**	**0.0142 J**	**0.023 J**	**0.022 J**
PCB-139/140	E1668C	**0.0121**	**0.00686**	**0.0126**	**0.00937**	**0.00972**	**0.0074**	**0.0154**	**0.0168**
PCB-141	E1668C	**0.154 J**	**0.174 J**	**0.189 J**	**0.178 J**	**0.155 J**	**0.187 J**	**0.276 J**	**0.299 J**
PCB-142	E1668C	0.0000186 U	0.0000228 U	0.0000229 U	0.0000449 U	0.0000345 U	0.000012 U	0.0000329 U	0.0000379 U
PCB-143	E1668C	0.0000172 U	0.0000193 U	0.0000212 U	0.0000415 U	0.0000319 U	0.0000105 U	0.0000288 U	0.0000332 U
PCB-144	E1668C	**0.0317 J**	**0.0344 J**	**0.0384 J**	**0.0382 J**	**0.0337 J**	**0.0324 J**	**0.0545 J**	**0.0587 J**
PCB-145	E1668C	**0.00079**	**0.000235**	**0.000676**	0.000058 U	0.0000324 U	0.0000147 U	0.0000292 U	0.0000418 U
PCB-146	E1668C	**0.152 J**	**0.108 J**	**0.163 J**	**0.131 J**	**0.133 J**	**0.123 J**	**0.245 J**	**0.264 J**
PCB-147/149	E1668C	**0.803 J**	**0.689 J**	**0.871 J**	**0.742 J**	**0.721 J**	**0.683 J**	**1.23 J**	**1.35 J**
PCB-148	E1668C	**0.00973 J**	**0.00266**	**0.00602**	**0.00439**	**0.00435**	**0.00203**	**0.0105**	**0.0117**
PCB-150	E1668C	**0.0379 J**	**0.005**	**0.0156 J**	**0.011 J**	**0.00863**	**0.00372**	**0.0355 J**	**0.0358 J**
PCB-152	E1668C	**0.0243 J**	**0.00212**	**0.00848**	**0.00575**	**0.0046**	**0.00143**	**0.0203 J**	**0.0197 J**
PCB-153/168	E1668C	**0.773 J**	**0.748 J**	**0.946 J**	**0.813 J**	**0.783 J**	**0.817 J**	**1.2 J**	**1.37 J**
PCB-154	E1668C	**0.0432 J**	**0.0142 J**	**0.0336 J**	**0.0251 J**	**0.0242 J**	**0.0124 J**	**0.0598 J**	**0.067 J**
PCB-155	E1668C	**0.00266**	**0.000302**	**0.000977**	**0.000653**	**0.000653**	**0.000159**	**0.00169**	**0.00173**
PCB-156/157	E1668C	**0.134 J**	**0.115 J**	**0.127 J**	**0.0931 J**	**0.0732 J**	**0.112 J**	**0.125 J**	**0.125 J**
PCB-158	E1668C	**0.0592 J**	**0.0582 J**	**0.0685 J**	**0.063 J**	**0.0611 J**	**0.0651 J**	**0.0917 J**	**0.101 J**
PCB-159	E1668C	**0.041 J**	**0.0269 J**	**0.0339 J**	**0.0312 J**	**0.0228 J**	**0.0297 J**	**0.0554 J**	**0.0446 J**
PCB-160	E1668C	0.0000133 U	0.0000168 U	0.0000164 U	0.0000321 U	0.0000247 U	0.00000895 U	0.0000246 U	0.0000283 U
PCB-161	E1668C	0.0000123 U	0.0000143 U	0.0000152 U	**0.000645**	0.0000229 U	0.00000771 U	0.0000212 U	0.0000244 U
PCB-162	E1668C	**0.00659**	**0.00285**	**0.00488**	**0.00424**	**0.00412**	**0.00481**	**0.0059**	**0.0051**
PCB-164	E1668C	**0.0513 J**	**0.05 J**	**0.0587 J**	**0.0507 J**	**0.0526 J**	**0.0597 J**	**0.084 J**	**0.0935 J**
PCB-165	E1668C	**0.00456**	**0.00139**	**0.00313**	**0.00216**	**0.00233**	**0.00109**	**0.00549**	**0.00627**
PCB-167	E1668C	**0.0696 J**	**0.0424 J**	**0.0599 J**	**0.0515 J**	**0.0441 J**	**0.0585 J**	**0.0762 J**	**0.0629 J**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP12-B/C-1/2	VP12-B/C-4	VP12-B-2/3	VP12-C/D-4	VP12-C-3	VP15-G/H-9	VP15-G-10	VP15-G-10
	Sample ID	VP12-B/C-1/2-PSBL-SED	VP12-B/C-4-PSBL-SED	VP12-B-2/3-PSBL-SED	VP12-C/D-4-PSBL-SED	VP12-C-3-PSBL-SED	VP15-G/H-9-PSBL-SED	VP15-FD-1	VP15-G-10-PSBL-SED
	Sample Date	5/30/2024	5/30/2024	5/30/2024	5/30/2024	5/30/2024	5/29/2024	5/29/2024	5/29/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	FD	N
	Matrix	SO	SO	SO	SO	SO	SO	SO	SO
PCB-169	E1668C	0.000239 U	0.00013 U	0.00022 U	0.000253 U	0.000156 U	0.000122 U	0.000286 U	0.000246 U
PCB-170	E1668C	**0.94 J**	**0.554 J**	**0.685 J**	**0.582 J**	**0.476 J**	**0.563 J**	**0.905 J**	**0.926 J**
PCB-171/173	E1668C	**0.114 J**	**0.1 J**	**0.125 J**	**0.122 J**	**0.131 J**	**0.108 J**	**0.182 J**	**0.181 J**
PCB-172	E1668C	**0.0724 J**	**0.0617 J**	**0.0788 J**	**0.0771 J**	**0.0787 J**	**0.0682 J**	**0.113 J**	**0.113 J**
PCB-174	E1668C	**0.425 J**	**0.393 J**	**0.486 J**	**0.471 J**	**0.485 J**	**0.415 J**	**0.668 J**	**0.658 J**
PCB-175	E1668C	**0.0169 J**	**0.0136 J**	**0.0174 J**	**0.0182 J**	**0.0174 J**	**0.0128 J**	**0.0271 J**	**0.0266 J**
PCB-176	E1668C	**0.184 J**	**0.114 J**	**0.112 J**	**0.113 J**	**0.0752 J**	**0.0885 J**	**0.206 J**	**0.185 J**
PCB-177	E1668C	**0.251 J**	**0.224 J**	**0.282 J**	**0.264 J**	**0.282 J**	**0.247 J**	**0.4 J**	**0.396 J**
PCB-178	E1668C	**0.403 J**	**0.221 J**	**0.223 J**	**0.214 J**	**0.143 J**	**0.201 J**	**0.412 J**	**0.375 J**
PCB-179	E1668C	**0.693 J**	**0.422 J**	**0.409 J**	**0.407 J**	**0.265 J**	**0.34 J**	**0.707 J**	**0.658 J**
PCB-180/193	E1668C	**0.933 J**	**0.786 J**	**1.01 J**	**0.99 J**	**0.998 J**	**0.841 J**	**1.41 J**	**1.44 J**
PCB-181	E1668C	0.000139 U	**0.00157**	**0.00238**	**0.0022**	**0.00254**	**0.00189**	**0.0028**	**0.0028**
PCB-182	E1668C	**0.00503**	**0.00208**	**0.00455**	**0.00377**	**0.00398**	**0.00248**	**0.00569**	**0.00548**
PCB-183	E1668C	**0.238 J**	**0.19 J**	**0.254 J**	**0.264 J**	**0.263 J**	**0.19 J**	**0.355 J**	**0.357 J**
PCB-184	E1668C	**0.00119**	0.0000361 U	**0.000534**	**0.00053**	**0.000384**	**0.000385**	**0.000956**	**0.000845**
PCB-185	E1668C	**0.0525 J**	**0.0591 J**	**0.0491 J**	**0.0486 J**	**0.0488 J**	**0.0617 J**	**0.0819 J**	**0.0784 J**
PCB-186	E1668C	0.0000389 U	0.0000326 U	0.000032 U	0.0000562 U	0.0000255 U	0.0000156 U	0.0000311 U	0.0000349 U
PCB-187	E1668C	**0.553 J**	**0.464 J**	**0.589 J**	**0.559 J**	**0.579 J**	**0.463 J**	**0.819 J**	**0.817 J**
PCB-188	E1668C	**0.012 J**	**0.00188**	**0.00351**	**0.00326**	**0.00255**	**0.00115**	**0.00747**	**0.00762**
PCB-189	E1668C	**0.0369 J**	**0.0252 J**	**0.0306 J**	**0.0249 J**	**0.0172 J**	**0.0246 J**	**0.0483 J**	**0.0449 J**
PCB-190	E1668C	**0.219 J**	**0.136 J**	**0.163 J**	**0.139 J**	**0.108 J**	**0.139 J**	**0.214 J**	**0.221 J**
PCB-191	E1668C	**0.0197 J**	**0.013 J**	**0.0175 J**	**0.0214 J**	**0.018 J**	**0.0143 J**	**0.0301 J**	**0.0295 J**
PCB-192	E1668C	0.000109 U	0.0000696 U	0.000108 U	0.000112 U	0.00015 U	0.0000829 U	0.000151 U	0.000116 U
PCB-194	E1668C	**0.611 J**	**0.373 J**	**0.494 J**	**0.419 J**	**0.242 J**	**0.357 J**	**0.858 J**	**0.81 J**
PCB-195	E1668C	**0.267 J**	**0.179 J**	**0.222 J**	**0.186 J**	**0.107 J**	**0.175 J**	**0.383 J**	**0.356 J**
PCB-196	E1668C	**0.362 J**	**0.213 J**	**0.275 J**	**0.213 J**	**0.179 J**	**0.189 J**	**0.353 J**	**0.413 J**
PCB-197	E1668C	**0.0267 J**	**0.0157 J**	**0.0194 J**	**0.0153 J**	**0.0138 J**	**0.0124 J**	**0.0264 J**	**0.0275 J**
PCB-198/199	E1668C	**0.702 J**	**0.464 J**	**0.559 J**	**0.419 J**	**0.353 J**	**0.441 J**	**0.698 J**	**0.809 J**
PCB-200	E1668C	**0.101 J**	**0.0683 J**	**0.0859 J**	**0.0633 J**	**0.0518 J**	**0.0685 J**	**0.11 J**	**0.129 J**
PCB-201	E1668C	**0.0935 J**	**0.0542 J**	**0.0717 J**	**0.055 J**	**0.045 J**	**0.0444 J**	**0.0929 J**	**0.108 J**
PCB-202	E1668C	**0.136 J**	**0.0844 J**	**0.107 J**	**0.0778 J**	**0.0686 J**	**0.0726 J**	**0.12 J**	**0.139 J**
PCB-203	E1668C	**0.41 J**	**0.277 J**	**0.335 J**	**0.252 J**	**0.212 J**	**0.266 J**	**0.404 J**	**0.466 J**
PCB-204	E1668C	**0.000178 J**	**0.000075 J**	**0.000153**	**0.000102**	0.0000451 U	**0.0000754 J**	0.0000514 U	0.0000473 U
PCB-205	E1668C	**0.0355 J**	**0.0244 J**	**0.0292 J**	**0.0243 J**	**0.014 J**	**0.0226 J**	**0.0494 J**	**0.0453 J**
PCB-206	E1668C	**0.176 J**	**0.115 J**	**0.129 J**	**0.0994 J**	**0.0893 J**	**0.0986 J**	**0.215 J**	**0.208 J**
PCB-207	E1668C	**0.0231 J**	**0.0142 J**	**0.0177 J**	**0.0142 J**	**0.0113**	**0.0113 J**	**0.0286 J**	**0.0305 J**
PCB-208	E1668C	**0.0348 J**	**0.021 J**	**0.0274 J**	**0.0219 J**	**0.0186 J**	**0.0185 J**	**0.0377 J**	**0.0412 J**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP12-B/C-1/2	VP12-B/C-4	VP12-B-2/3	VP12-C/D-4	VP12-C-3	VP15-G/H-9	VP15-G-10	VP15-G-10
	Sample ID	VP12-B/C-1/2-PSBL-SED	VP12-B/C-4-PSBL-SED	VP12-B-2/3-PSBL-SED	VP12-C/D-4-PSBL-SED	VP12-C-3-PSBL-SED	VP15-G/H-9-PSBL-SED	VP15-FD-1	VP15-G-10-PSBL-SED
	Sample Date	5/30/2024	5/30/2024	5/30/2024	5/30/2024	5/30/2024	5/29/2024	5/29/2024	5/29/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	FD	N
	Matrix	SO	SO	SO	SO	SO	SO	SO	SO
PCB-209	E1668C	**0.0133 J**	**0.00483**	**0.0099 J**	**0.00942**	**0.0066**	**0.00694**	**0.00952**	**0.00889**
Total PCB Congener (U = 0 max limit)		**22 J**	**13 J**	**16 J**	**14 J**	**13 J**	**13 J**	**23 J**	**24 J**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP15-G-11	VP15-G-12	VP15-G-13	VP15-H-12	VP15-H-14	VP15-I-15	VP22-B-4/5
	Sample ID	VP15-G-11-PSBL-SED	VP15-G-12-PSBL-SED	VP15-G-13-PSBL-SED	VP15-H-12-PSBL-SED	VP15-H-14-PSBL-SED	VP15-I-15-PSBL-SED	VP22-B-4/5-PSBL-SED
	Sample Date	5/29/2024	5/29/2024	5/30/2024	5/30/2024	5/30/2024	5/30/2024	5/31/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	N
	Matrix	SO	SO	SO	SO	SO	SO	SO
Conventional Parameters (pct)								
Total organic carbon	LloydKahn	**7.84**	**17**	**7.85**	**7.05**	**6.94**	**5.7**	**10.2**
Total solids	SM2540G	**48.1**	**22.9**	**34.9**	**53.7**	**38.8**	**47.3**	**42.0**
PCB Aroclors (mg/kg)								
Aroclor 1016	SW8082A	0.041 U	0.084 U	0.057 U	0.037 U	0.052 U	0.041 U	0.044 U
Aroclor 1221	SW8082A	0.041 U	0.084 U	0.057 U	0.037 U	0.052 U	0.041 U	0.044 U
Aroclor 1232	SW8082A	0.041 U	0.084 U	0.057 U	0.037 U	0.052 U	0.041 U	0.044 U
Aroclor 1242	SW8082A	0.041 U	0.084 U	0.057 U	0.037 U	0.052 U	0.041 U	0.044 U
Aroclor 1248	SW8082A	0.041 U	0.084 U	0.057 U	0.037 U	0.052 U	0.041 U	0.044 U
Aroclor 1254	SW8082A	0.041 U	0.084 U	0.057 U	0.037 U	0.052 U	0.041 U	0.044 U
Aroclor 1260	SW8082A	**5.94**	**1.26**	**1.76**	**5.99 J**	**4.27**	**6.86 J**	**1.16**
Total PCB Aroclors (U = 0 max limit)		**5.94**	**1.26**	**1.76**	**5.99 J**	**4.27**	**6.86 J**	**1.16**
PCB Congeners (mg/kg)								
PCB-001	E1668C	**0.000136**	**0.000145**	**0.000335 J**	**0.000131**	**0.000196**	**0.00019**	**0.000136**
PCB-002	E1668C	**0.0000176 J**	0.0000162 U	**0.0000442 J**	**0.0000213 J**	**0.0000376**	**0.0000322 J**	**0.0000146 J**
PCB-003	E1668C	**0.0000959**	**0.0000621 J**	**0.000466**	**0.0000875**	**0.000126 J**	**0.000166 J**	**0.0000656**
PCB-004	E1668C	**0.00133**	**0.00114**	**0.00562**	**0.00142**	**0.00221**	**0.00142**	**0.00172**
PCB-005	E1668C	**0.0000376**	0.0000626 U	0.0000225 U	**0.0000226**	0.0000206 U	0.0000802 U	0.0000133 U
PCB-006	E1668C	**0.000872**	**0.000472**	**0.00188**	**0.000692**	**0.000849**	**0.000583 J**	**0.000716**
PCB-007	E1668C	**0.0000788**	**0.0000347**	**0.000631**	**0.0000529**	**0.0000808**	0.0000764 U	**0.0000516**
PCB-008	E1668C	**0.00193**	**0.000791**	**0.00195**	**0.00152**	**0.00151**	**0.00168**	**0.00104**
PCB-009	E1668C	**0.000121**	**0.0000507**	**0.000473**	**0.0000923 J**	**0.000109**	**0.000105 J**	**0.0000764**
PCB-010	E1668C	**0.0000462**	**0.0000426**	**0.000402**	**0.0000442**	**0.000104 J**	**0.0000781 J**	**0.0000536**
PCB-011	E1668C	**0.000104**	**0.0000804**	**0.00017**	**0.000062**	**0.000116**	0.000162 U	**0.0000592**
PCB-012/013	E1668C	**0.000433**	**0.00021**	**0.00254**	**0.000266**	**0.000618**	**0.000395 J**	**0.000294**
PCB-014	E1668C	0.0000127 U	0.0000604 U	0.0000221 U	0.0000195 U	0.0000202 U	0.0000782 U	0.0000133 U
PCB-015	E1668C	**0.00403**	**0.00168**	**0.0164 J**	**0.00257**	**0.00456**	**0.00591**	**0.00125**
PCB-016	E1668C	**0.00128**	**0.000695**	**0.00219**	**0.00135**	**0.00117**	**0.0015**	**0.000579**
PCB-017	E1668C	**0.0021**	**0.00169**	**0.0435 J**	**0.0022**	**0.00681**	**0.00246**	**0.00157**
PCB-018/030	E1668C	**0.00286**	**0.00215**	**0.0249 J**	**0.00277**	**0.00466**	**0.00326**	**0.00145**
PCB-019	E1668C	**0.000778**	**0.000676**	**0.0144 J**	**0.000735**	**0.00291**	**0.00113**	**0.000812**
PCB-020/028	E1668C	**0.00779**	**0.00722**	**0.0729 J**	**0.00607**	**0.0257 J**	**0.0106**	**0.00259**
PCB-021/033	E1668C	**0.00153**	**0.000984**	**0.0189**	**0.0015**	**0.00632**	**0.00254**	**0.000636**
PCB-022	E1668C	**0.0013**	**0.000647**	**0.00208**	**0.00115**	**0.00142**	**0.00153**	**0.000602**
PCB-023	E1668C	0.000033 U	0.0000486 U	0.0000998 U	0.0000427 U	0.0000648 U	0.000132 U	0.0000265 U
PCB-024	E1668C	**0.0000568**	**0.0000522**	**0.00137**	**0.0000485 J**	**0.00013**	**0.0000612 J**	**0.0000389**
PCB-025	E1668C	**0.00207**	**0.00262**	**0.082 J**	**0.00161**	**0.0129 J**	**0.00325**	**0.00141**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP15-G-11	VP15-G-12	VP15-G-13	VP15-H-12	VP15-H-14	VP15-I-15	VP22-B-4/5
	Sample ID	VP15-G-11-PSBL-SED	VP15-G-12-PSBL-SED	VP15-G-13-PSBL-SED	VP15-H-12-PSBL-SED	VP15-H-14-PSBL-SED	VP15-I-15-PSBL-SED	VP22-B-4/5-PSBL-SED
	Sample Date	5/29/2024	5/29/2024	5/30/2024	5/30/2024	5/30/2024	5/30/2024	5/31/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	N
	Matrix	SO	SO	SO	SO	SO	SO	SO
PCB-026/029	E1668C	**0.00521**	**0.00464**	**0.0596 J**	**0.00471**	**0.0134**	**0.00574**	**0.00326**
PCB-027	E1668C	**0.000957**	**0.00304**	**0.131 J**	**0.000696**	**0.00997**	**0.0015**	**0.0006**
PCB-031	E1668C	**0.00562**	**0.00331**	**0.031 J**	**0.00491**	**0.00971**	**0.00634**	**0.00222**
PCB-032	E1668C	**0.00161**	**0.00246**	**0.0785 J**	**0.0014**	**0.0214 J**	**0.00291**	**0.000877**
PCB-034	E1668C	**0.0000368**	**0.0000346 J**	**0.00102**	**0.0000316**	**0.000479**	0.000143 U	0.0000274 U
PCB-035	E1668C	**0.000145**	0.0000487 U	0.000104 U	**0.0000966**	**0.000198**	**0.000184 J**	0.0000269 U
PCB-036	E1668C	0.0000288 U	0.0000424 U	0.0000868 U	0.0000371 U	0.0000564 U	0.000125 U	0.0000229 U
PCB-037	E1668C	**0.00323**	**0.00128**	**0.00697**	**0.00246**	**0.00311**	**0.00448**	**0.000672**
PCB-038	E1668C	0.0000311 U	0.0000458 U	**0.000595**	0.0000408 U	**0.00029**	0.000134 U	0.0000256 U
PCB-039	E1668C	**0.0000657**	0.0000459 U	0.000096 U	0.0000411 U	0.0000624 U	0.000134 U	0.0000257 U
PCB-040/071	E1668C	**0.0071**	**0.00801**	**0.146 J**	**0.00644**	**0.0612 J**	**0.0172**	**0.00162**
PCB-041	E1668C	0.0000217 U	0.0000323 U	0.0000566 U	**0.000306**	0.0000372 U	0.0000416 U	**0.000093**
PCB-042	E1668C	**0.00654**	**0.00757**	**0.159 J**	**0.00663**	**0.0427 J**	**0.0139**	**0.00141**
PCB-043	E1668C	**0.000545**	**0.000413**	0.0000418 U	**0.00113**	**0.00213**	**0.00173**	**0.000109**
PCB-044/047/065	E1668C	**0.0687 J**	**0.095 J**	**2.36 J**	**0.0521 J**	**0.743 J**	**0.356**	**0.0143**
PCB-045	E1668C	**0.00115**	**0.000555**	**0.00671**	**0.000916**	**0.00138**	**0.0014**	**0.000228**
PCB-046	E1668C	**0.000671**	**0.00149**	**0.0551 J**	**0.000378**	**0.011 J**	**0.00131**	**0.000284**
PCB-048	E1668C	**0.00111**	**0.000566**	**0.006**	**0.00134**	**0.00198**	**0.00319**	**0.000318**
PCB-049/069	E1668C	**0.113 J**	**0.121 J**	**1.99 J**	**0.0965 J**	**0.577 J**	**0.247**	**0.0208 J**
PCB-050/053	E1668C	**0.00903**	**0.0144**	**0.798 J**	**0.00381**	**0.17 J**	**0.0331**	**0.00246**
PCB-051	E1668C	**0.00344**	**0.0077**	**0.587 J**	**0.00123**	**0.139 J**	**0.0149**	**0.00225**
PCB-052	E1668C	**0.158 J**	**0.0835 J**	**0.939 J**	**0.325 J**	**0.351 J**	**0.211**	**0.0191 J**
PCB-054	E1668C	**0.000514**	**0.000624**	**0.0832 J**	**0.000181**	**0.02 J**	**0.00285**	**0.000319**
PCB-055	E1668C	0.000429 U	0.000264 U	0.000579 U	0.000415 U	0.000457 U	0.000652 U	0.00017 U
PCB-056	E1668C	**0.0109 J**	**0.00368**	**0.00912**	**0.00784 J**	**0.00827**	**0.0138**	**0.00126**
PCB-057	E1668C	0.000464 U	0.000286 U	**0.0021**	0.000473 U	0.00052 U	0.000666 U	0.000185 U
PCB-058	E1668C	**0.00074**	**0.000633**	0.000582 U	0.000418 U	0.000459 U	0.000614 U	0.000164 U
PCB-059/062/075	E1668C	**0.0052**	**0.00643**	**0.0698 J**	**0.00294**	**0.0285**	**0.0154**	**0.00093**
PCB-060	E1668C	**0.00359**	**0.00101**	**0.0017**	**0.00199**	**0.00147**	**0.00308**	**0.000553 J**
PCB-061/070/074/076	E1668C	**0.103 J**	**0.0507**	**0.157 J**	**0.122 J**	**0.118 J**	**0.129**	**0.0168**
PCB-063	E1668C	**0.00187**	**0.00218**	**0.0089**	**0.000888**	**0.00555**	**0.00223**	**0.000557**
PCB-064	E1668C	**0.02 J**	**0.012**	**0.0429 J**	**0.0218 J**	**0.0245 J**	**0.0208**	**0.00268**
PCB-066	E1668C	**0.0703 J**	**0.0499 J**	**0.208 J**	**0.0525 J**	**0.122 J**	**0.133**	**0.0072**
PCB-067	E1668C	**0.0011**	**0.000789 J**	**0.00985**	**0.000687**	**0.00395**	**0.00289**	0.000159 U
PCB-068	E1668C	**0.00459**	**0.00869**	**0.0559 J**	**0.00246**	**0.0218 J**	**0.0117**	**0.00291**
PCB-072	E1668C	**0.00653**	**0.00766**	**0.034 J**	**0.00491**	**0.0187 J**	**0.0126**	**0.00281**
PCB-073	E1668C	**0.00296**	**0.00443**	**0.0603 J**	**0.00251**	**0.0209 J**	**0.0118**	**0.000507**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP15-G-11	VP15-G-12	VP15-G-13	VP15-H-12	VP15-H-14	VP15-I-15	VP22-B-4/5
	Sample ID	VP15-G-11-PSBL-SED	VP15-G-12-PSBL-SED	VP15-G-13-PSBL-SED	VP15-H-12-PSBL-SED	VP15-H-14-PSBL-SED	VP15-I-15-PSBL-SED	VP22-B-4/5-PSBL-SED
	Sample Date	5/29/2024	5/29/2024	5/30/2024	5/30/2024	5/30/2024	5/30/2024	5/31/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	N
	Matrix	SO	SO	SO	SO	SO	SO	SO
PCB-077	E1668C	**0.00574**	**0.00233**	**0.00402**	**0.00364**	**0.00564**	**0.008**	**0.00113**
PCB-078	E1668C	0.000486 U	0.00030 U	0.000706 U	0.000507 U	0.000557 U	0.00079 U	0.000197 U
PCB-079	E1668C	**0.0028**	**0.00143**	**0.00452**	**0.00523**	**0.00545**	**0.00474**	**0.000413**
PCB-080	E1668C	0.000444 U	0.000274 U	0.000626 U	0.000449 U	0.000494 U	0.000639 U	0.000177 U
PCB-081	E1668C	0.00043 U	0.000265 U	0.00061 U	0.000438 U	0.000481 U	0.000757 U	0.000168 U
PCB-082	E1668C	**0.0285 J**	**0.0148**	**0.0251 J**	**0.0666 J**	**0.0337 J**	**0.0518**	**0.00355**
PCB-083	E1668C	**0.0297 J**	**0.0146**	**0.039 J**	**0.0556 J**	**0.0482 J**	**0.0367**	**0.0021**
PCB-084	E1668C	**0.057 J**	**0.0303 J**	**0.14 J**	**0.163 J**	**0.102 J**	**0.0996**	**0.00532**
PCB-085/116	E1668C	**0.122 J**	**0.0653 J**	**0.0723 J**	**0.182 J**	**0.0954 J**	**0.142**	**0.0344 J**
PCB-086/087/097/109/119/125	E1668C	**0.386 J**	**0.21 J**	**0.412 J**	**0.76 J**	**0.424 J**	**0.543**	**0.0769 J**
PCB-088	E1668C	0.00184 U	0.0013 U	0.00353 U	0.00302 U	0.00297 U	0.0058 U	0.000324 U
PCB-089	E1668C	0.00161 U	0.00114 U	0.00288 U	0.00246 U	0.00242 U	0.00472 U	0.000282 U
PCB-090/101/113	E1668C	**1.22 J**	**0.6 J**	**1.2 J**	**1.97 J**	**1.19 J**	**1.74**	**0.294 J**
PCB-091	E1668C	**0.134 J**	**0.151 J**	**0.859 J**	**0.149 J**	**0.382 J**	**0.445**	**0.0288 J**
PCB-092	E1668C	**0.297 J**	**0.184 J**	**0.388 J**	**0.405 J**	**0.381 J**	**0.463**	**0.0645 J**
PCB-093/100	E1668C	**0.0237 J**	**0.0374**	**0.41 J**	**0.0144**	**0.157 J**	**0.125**	**0.00607**
PCB-094	E1668C	**0.00689**	**0.0108**	**0.122 J**	0.00287 U	**0.0572 J**	**0.0425**	**0.000793**
PCB-095	E1668C	**0.741 J**	**0.298 J**	**0.683 J**	**1.4 J**	**0.699 J**	**1.09 J**	**0.0638 J**
PCB-096	E1668C	**0.00326**	**0.00407**	**0.108 J**	**0.00189**	**0.0424 J**	**0.0279**	**0.000396**
PCB-098	E1668C	0.00136 U	0.000962 U	**0.0229 J**	0.00242 U	**0.00604**	0.00452 U	0.000288 U
PCB-099	E1668C	**0.435 J**	**0.307 J**	**0.696 J**	**0.609 J**	**0.61 J**	**0.789 J**	**0.124 J**
PCB-102	E1668C	**0.011 J**	**0.00953**	**0.0576 J**	**0.0144 J**	**0.0305 J**	**0.0366**	**0.000829**
PCB-103	E1668C	**0.0281 J**	**0.03 J**	**0.226 J**	**0.018 J**	**0.0917 J**	**0.0926**	**0.011 J**
PCB-104	E1668C	**0.000461**	**0.00067**	**0.0337 J**	**0.000205**	**0.0108 J**	**0.00385**	**0.000142**
PCB-105	E1668C	**0.185 J**	**0.0902 J**	**0.112 J**	**0.231 J**	**0.179 J**	**0.249**	**0.0863 J**
PCB-106	E1668C	0.00114 U	0.000801 U	0.00207 U	0.00177 U	0.00174 U	0.00387 U	0.000202 U
PCB-107	E1668C	**0.0511 J**	**0.0356 J**	**0.0559 J**	**0.0573 J**	**0.0544 J**	**0.0655**	**0.0233 J**
PCB-108/124	E1668C	**0.0304 J**	**0.0143**	**0.0158**	**0.0479 J**	**0.0197**	**0.0317**	**0.00975**
PCB-110	E1668C	**1.09 J**	**0.576 J**	**0.869 J**	**1.88 J**	**1.02 J**	**1.41 J**	**0.222 J**
PCB-111	E1668C	**0.00199**	**0.00228**	**0.00517**	0.00172 U	**0.00379**	0.00374 U	**0.00147**
PCB-112	E1668C	0.00102 U	0.00072 U	0.00182 U	0.00156 U	0.00153 U	0.0030 U	0.000177 U
PCB-114	E1668C	**0.00882**	**0.00304**	**0.00668**	**0.00987 J**	**0.00731**	**0.0128**	**0.00383**
PCB-115	E1668C	0.000968 U	0.000683 U	0.00174 U	0.00149 U	0.00146 U	0.00297 U	0.000172 U
PCB-117	E1668C	**0.0204 J**	**0.0216 J**	**0.0982 J**	**0.0342 J**	**0.047 J**	**0.0344**	**0.0086**
PCB-118	E1668C	**0.555 J**	**0.308 J**	**0.477 J**	**0.681 J**	**0.713 J**	**0.767 J**	**0.227 J**
PCB-120	E1668C	**0.00761**	**0.00719**	**0.0152 J**	**0.00519**	**0.0132 J**	**0.0165**	**0.00424**
PCB-121	E1668C	0.00108 U	**0.0017**	**0.0106**	0.00165 U	**0.00373**	0.00322 U	**0.00179**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP15-G-11	VP15-G-12	VP15-G-13	VP15-H-12	VP15-H-14	VP15-I-15	VP22-B-4/5
	Sample ID	VP15-G-11-PSBL-SED	VP15-G-12-PSBL-SED	VP15-G-13-PSBL-SED	VP15-H-12-PSBL-SED	VP15-H-14-PSBL-SED	VP15-I-15-PSBL-SED	VP22-B-4/5-PSBL-SED
	Sample Date	5/29/2024	5/29/2024	5/30/2024	5/30/2024	5/30/2024	5/30/2024	5/31/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	N
	Matrix	SO	SO	SO	SO	SO	SO	SO
PCB-122	E1668C	**0.00935 J**	**0.00367**	0.00304 U	**0.0146 J**	**0.00696**	**0.0151**	**0.00282**
PCB-123	E1668C	**0.012 J**	**0.0064**	**0.00726**	**0.0207 J**	**0.00892**	**0.018**	**0.00475**
PCB-126	E1668C	**0.00228**	**0.00108**	**0.0012**	**0.00171**	**0.00183**	**0.00209**	**0.00088**
PCB-127	E1668C	0.00119 U	0.000761 U	0.00242 U	0.0022 U	0.00342 U	0.00433 U	**0.000471**
PCB-128/166	E1668C	**0.326 J**	**0.135 J**	**0.196 J**	**0.395 J**	**0.244 J**	**0.435**	**0.125 J**
PCB-129/138/163	E1668C	**1.12 J**	**1.34 J**	**1.21 J**	**0.883 J**	**1.07 J**	**4.5 J**	**0.847 J**
PCB-130	E1668C	**0.0599 J**	**0.0779 J**	**0.0715 J**	**0.0452 J**	**0.0665 J**	**0.229**	**0.0323 J**
PCB-131	E1668C	**0.00608**	**0.00566**	**0.00561**	**0.00589**	**0.00538**	**0.023**	**0.00171**
PCB-132	E1668C	**0.307 J**	**0.287 J**	**0.233 J**	**0.251 J**	**0.245 J**	**1.11 J**	**0.12 J**
PCB-133	E1668C	**0.0206 J**	**0.0315 J**	**0.0435 J**	**0.0118 J**	**0.0284 J**	**0.0909**	**0.0185 J**
PCB-134	E1668C	**0.0554 J**	**0.0598 J**	**0.0802 J**	**0.0468 J**	**0.0597 J**	**0.23**	**0.0202 J**
PCB-135/151	E1668C	**0.546 J**	**0.552 J**	**0.629 J**	**0.363 J**	**0.468 J**	**2.15 J**	**0.348 J**
PCB-136	E1668C	**0.483 J**	**0.157 J**	**0.39 J**	**0.514 J**	**0.392 J**	**0.816 J**	**0.0866 J**
PCB-137	E1668C	**0.0182 J**	**0.0212**	**0.0268 J**	**0.0185 J**	**0.0207 J**	**0.06**	**0.00885**
PCB-139/140	E1668C	**0.0112**	**0.0164**	**0.0204**	**0.00816**	**0.0155**	**0.0553**	**0.00778**
PCB-141	E1668C	**0.288 J**	**0.224 J**	**0.179 J**	**0.209 J**	**0.172 J**	**1.01 J**	**0.154 J**
PCB-142	E1668C	0.0000189 U	0.000114 U	0.0000467 U	0.0000164 U	0.0000294 U	0.000029 U	0.00000929 U
PCB-143	E1668C	0.0000166 U	0.0000994 U	0.0000395 U	0.0000138 U	0.0000248 U	0.0000258 U	0.0000083 U
PCB-144	E1668C	**0.0513 J**	**0.0399 J**	**0.0355 J**	**0.0395 J**	**0.0321 J**	**0.194**	**0.0238 J**
PCB-145	E1668C	**0.000556**	0.0000739 U	**0.000644**	**0.000888**	**0.000604**	0.0000279 U	**0.000138**
PCB-146	E1668C	**0.192 J**	**0.24 J**	**0.252 J**	**0.118 J**	**0.205 J**	**0.775 J**	**0.146 J**
PCB-147/149	E1668C	**0.965 J**	**1.07 J**	**1.28 J**	**0.739 J**	**0.951 J**	**4.1 J**	**0.659 J**
PCB-148	E1668C	**0.00372**	**0.00797**	**0.0213 J**	**0.00124**	**0.0094**	**0.0254**	**0.00528**
PCB-150	E1668C	**0.00992 J**	**0.00986**	**0.0691 J**	**0.00448**	**0.0345 J**	**0.0364**	**0.00579**
PCB-152	E1668C	**0.00381**	**0.00463**	**0.0369 J**	**0.00194**	**0.019 J**	**0.0205**	**0.00182**
PCB-153/168	E1668C	**0.974 J**	**1.26 J**	**1.18 J**	**0.733 J**	**1.01 J**	**4.45 J**	**0.867 J**
PCB-154	E1668C	**0.0225 J**	**0.0467 J**	**0.0972 J**	**0.0091 J**	**0.0519 J**	**0.151**	**0.0208 J**
PCB-155	E1668C	**0.000411**	**0.000446**	**0.00473**	**0.000134 J**	**0.00222**	**0.00182**	**0.000294**
PCB-156/157	E1668C	**0.202 J**	**0.085 J**	**0.13 J**	**0.236 J**	**0.16 J**	**0.247**	**0.0915 J**
PCB-158	E1668C	**0.0931 J**	**0.089 J**	**0.0783 J**	**0.0723 J**	**0.0723 J**	**0.326**	**0.0519 J**
PCB-159	E1668C	**0.0532 J**	**0.0183**	**0.0316 J**	**0.0499 J**	**0.0343 J**	**0.103**	**0.0295 J**
PCB-160	E1668C	0.0000141 U	0.0000848 U	0.0000345 U	0.0000121 U	0.0000217 U	0.0000218 U	0.00000718 U
PCB-161	E1668C	0.0000122 U	0.0000731 U	**0.000807**	0.0000102 U	0.0000183 U	0.0000197 U	0.0000060 U
PCB-162	E1668C	**0.00811**	**0.00339**	**0.00539**	**0.0093 J**	**0.00661**	**0.00959**	**0.00256**
PCB-164	E1668C	**0.0879 J**	**0.09 J**	**0.0744 J**	**0.0619 J**	**0.0684 J**	**0.319**	**0.0536 J**
PCB-165	E1668C	**0.0016**	**0.00465**	**0.0164 J**	**0.000618**	**0.00494**	**0.0152**	**0.003**
PCB-167	E1668C	**0.0974 J**	**0.0377 J**	**0.0608 J**	**0.116 J**	**0.0704 J**	**0.121**	**0.0361 J**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP15-G-11	VP15-G-12	VP15-G-13	VP15-H-12	VP15-H-14	VP15-I-15	VP22-B-4/5
	Sample ID	VP15-G-11-PSBL-SED	VP15-G-12-PSBL-SED	VP15-G-13-PSBL-SED	VP15-H-12-PSBL-SED	VP15-H-14-PSBL-SED	VP15-I-15-PSBL-SED	VP22-B-4/5-PSBL-SED
	Sample Date	5/29/2024	5/29/2024	5/30/2024	5/30/2024	5/30/2024	5/30/2024	5/31/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	N
	Matrix	SO	SO	SO	SO	SO	SO	SO
PCB-169	E1668C	0.000294 U	0.00030 U	0.000227 U	0.000187 U	0.000235 U	0.000901 U	0.000249 U
PCB-170	E1668C	**0.815 J**	**0.49 J**	**0.731 J**	**0.886 J**	**0.705 J**	**2.32 J**	**0.593 J**
PCB-171/173	E1668C	**0.151 J**	**0.147 J**	**0.135 J**	**0.114 J**	**0.155 J**	**0.593**	**0.0948 J**
PCB-172	E1668C	**0.0964 J**	**0.094 J**	**0.0872 J**	**0.0682 J**	**0.0963 J**	**0.375**	**0.0659 J**
PCB-174	E1668C	**0.579 J**	**0.551 J**	**0.469 J**	**0.439 J**	**0.546 J**	**2.36 J**	**0.418 J**
PCB-175	E1668C	**0.0198 J**	**0.0181**	**0.018 J**	**0.0141 J**	**0.0195 J**	**0.0864**	**0.0113 J**
PCB-176	E1668C	**0.191 J**	**0.0753 J**	**0.137 J**	**0.237 J**	**0.13 J**	**0.341**	**0.0825 J**
PCB-177	E1668C	**0.343 J**	**0.35 J**	**0.304 J**	**0.246 J**	**0.345 J**	**1.33 J**	**0.258 J**
PCB-178	E1668C	**0.416 J**	**0.188 J**	**0.362 J**	**0.454 J**	**0.301 J**	**0.651**	**0.257 J**
PCB-179	E1668C	**0.72 J**	**0.3 J**	**0.597 J**	**0.837 J**	**0.514 J**	**1.15 J**	**0.395 J**
PCB-180/193	E1668C	**1.1 J**	**1.15 J**	**1.1 J**	**0.893 J**	**1.2 J**	**4.88 J**	**0.833 J**
PCB-181	E1668C	**0.00237**	**0.00298**	**0.00373**	0.0000982 U	**0.0035**	**0.0105**	**0.00163**
PCB-182	E1668C	**0.00386**	**0.00524**	**0.0062**	**0.00219**	**0.00677**	**0.0253**	**0.00309**
PCB-183	E1668C	**0.273 J**	**0.27 J**	**0.259 J**	**0.204 J**	**0.284 J**	**1.25 J**	**0.168 J**
PCB-184	E1668C	**0.000632**	**0.000431**	**0.00151**	0.0000611 U	**0.000877**	**0.00161 J**	**0.000435**
PCB-185	E1668C	**0.0873 J**	**0.0501 J**	**0.0523 J**	**0.0606 J**	**0.0723 J**	**0.298**	**0.0628 J**
PCB-186	E1668C	0.0000272 U	0.0000773 U	0.0000428 U	0.0000553 U	0.000039 U	0.0000239 U	0.0000127 U
PCB-187	E1668C	**0.656 J**	**0.708 J**	**0.709 J**	**0.48 J**	**0.729 J**	**2.74 J**	**0.576 J**
PCB-188	E1668C	**0.00278**	**0.00304**	**0.0184 J**	**0.00197**	**0.00848**	**0.00893**	**0.00322**
PCB-189	E1668C	**0.0497 J**	**0.0198**	**0.0375 J**	**0.0465 J**	**0.044 J**	**0.074**	**0.0228 J**
PCB-190	E1668C	**0.203 J**	**0.117 J**	**0.168 J**	**0.2 J**	**0.162 J**	**0.529**	**0.161 J**
PCB-191	E1668C	**0.0202 J**	**0.0194**	**0.0221 J**	**0.0148 J**	**0.0212 J**	**0.0918**	**0.0117 J**
PCB-192	E1668C	0.000105 U	0.000159 U	0.000123 U	0.0000764 U	0.000144 U	0.000852 U	0.0000864 U
PCB-194	E1668C	**0.823 J**	**0.311 J**	**0.495 J**	**0.603 J**	**0.535 J**	**1.29 J**	**0.44 J**
PCB-195	E1668C	**0.392 J**	**0.147 J**	**0.228 J**	**0.303 J**	**0.253 J**	**0.584**	**0.218 J**
PCB-196	E1668C	**0.343 J**	**0.181 J**	**0.314 J**	**0.283 J**	**0.303 J**	**0.761 J**	**0.173 J**
PCB-197	E1668C	**0.0232 J**	**0.012**	**0.0219 J**	**0.0173 J**	**0.0233 J**	**0.0549**	**0.0108 J**
PCB-198/199	E1668C	**0.756 J**	**0.415 J**	**0.623 J**	**0.626 J**	**0.623 J**	**1.5 J**	**0.481 J**
PCB-200	E1668C	**0.12 J**	**0.0618 J**	**0.0873 J**	**0.0903 J**	**0.0872 J**	**0.229**	**0.0652 J**
PCB-201	E1668C	**0.0845 J**	**0.0448 J**	**0.0755 J**	**0.0674 J**	**0.0733 J**	**0.194**	**0.0429 J**
PCB-202	E1668C	**0.13 J**	**0.0727 J**	**0.121 J**	**0.107 J**	**0.114 J**	**0.25**	**0.0894 J**
PCB-203	E1668C	**0.446 J**	**0.239 J**	**0.37 J**	**0.374 J**	**0.376 J**	**0.901 J**	**0.281 J**
PCB-204	E1668C	**0.000141**	0.0000838 U	**0.000199 J**	**0.000129**	**0.000151 J**	**0.000301**	0.0000395 U
PCB-205	E1668C	**0.0503 J**	**0.0186**	**0.0297 J**	**0.0392 J**	**0.0333 J**	**0.0777**	**0.0292 J**
PCB-206	E1668C	**0.218 J**	**0.0861 J**	**0.198 J**	**0.161 J**	**0.163 J**	**0.349**	**0.129 J**
PCB-207	E1668C	**0.0244 J**	**0.00976**	**0.0194 J**	**0.0157 J**	**0.0206 J**	**0.0462**	**0.0143 J**
PCB-208	E1668C	**0.0376 J**	**0.0154**	**0.028 J**	**0.0267 J**	**0.0312 J**	**0.0613**	**0.0237 J**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP15-G-11	VP15-G-12	VP15-G-13	VP15-H-12	VP15-H-14	VP15-I-15	VP22-B-4/5
	Sample ID	VP15-G-11-PSBL-SED	VP15-G-12-PSBL-SED	VP15-G-13-PSBL-SED	VP15-H-12-PSBL-SED	VP15-H-14-PSBL-SED	VP15-I-15-PSBL-SED	VP22-B-4/5-PSBL-SED
	Sample Date	5/29/2024	5/29/2024	5/30/2024	5/30/2024	5/30/2024	5/30/2024	5/31/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	N
	Matrix	SO	SO	SO	SO	SO	SO	SO
PCB-209	E1668C	**0.0137 J**	**0.00616**	**0.0116 J**	**0.0135 J**	**0.0126 J**	**0.0129**	**0.00557**
Total PCB Congener (U = 0 max limit)		**21 J**	**16 J**	**30 J**	**22 J**	**23 J**	**57 J**	**11 J**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP22-C-4	VP22-D-3	VP22-E-2	VP22-F/G-2/3	VP22-F/G-3/4	VP22-H-2	VP22-H-3/4	VP22-I-3
	Sample ID	VP22-C-4-PSBL-SED	VP22-D-3-PSBL-SED	VP22-E-2-PSBL-SED	VP22-F/G-2/3-PSBL-SED	VP22-F/G-3/4-PSBL-SED	VP22-H-2-PSBL-SED	VP22-H-3/4-PSBL-SED	VP22-FD-2
	Sample Date	5/31/2024	5/31/2024	5/31/2024	5/31/2024	5/31/2024	5/31/2024	5/31/2024	5/31/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	N	FD
	Matrix	SO	SO	SO	SO	SO	SO	SO	SO
Conventional Parameters (pct)									
Total organic carbon	LloydKahn	**6.91**	**7.09**	**4.91**	**5.42**	**6.96**	**6.62**	**5.23**	**8.19**
Total solids	SM2540G	**55.4**	**53.3**	**54.5**	**45.3**	**55.6**	**44.4**	**57.1**	**39.9**
PCB Aroclors (mg/kg)									
Aroclor 1016	SW8082A	0.036 U	0.037 U	0.035 U	0.044 U	0.036 U	0.045 U	0.035 U	0.050 U
Aroclor 1221	SW8082A	0.036 U	0.037 U	0.035 U	0.044 U	0.036 U	0.045 U	0.035 U	0.050 U
Aroclor 1232	SW8082A	0.036 U	0.037 U	0.035 U	0.044 U	0.036 U	0.045 U	0.035 U	0.050 U
Aroclor 1242	SW8082A	0.036 U	0.037 U	0.035 U	0.044 U	0.036 U	0.045 U	0.035 U	0.050 U
Aroclor 1248	SW8082A	0.036 U	0.037 U	0.035 U	0.044 U	0.036 U	0.045 U	0.035 U	0.050 U
Aroclor 1254	SW8082A	0.036 U	0.037 U	0.035 U	0.044 U	0.036 U	0.045 U	0.035 U	0.050 U
Aroclor 1260	SW8082A	**2.16**	**0.436**	**0.466**	**0.748**	**1.31**	**3**	**1.19**	**1.64**
Total PCB Aroclors (U = 0 max limit)		**2.16**	**0.436**	**0.466**	**0.748**	**1.31**	**3.0**	**1.19**	**1.64**
PCB Congeners (mg/kg)									
PCB-001	E1668C	**0.000082 J**	**0.000024**	**0.0000339**	**0.0000412 J**	**0.0000404 J**	**0.0000998**	**0.0000312**	**0.000136**
PCB-002	E1668C	**0.0000233**	**0.00000621 J**	**0.0000116 J**	**0.0000138 J**	0.00000666 U	**0.0000508**	0.00000884 U	**0.000131 J**
PCB-003	E1668C	**0.0000442 J**	**0.0000194 J**	**0.0000355**	**0.0000466**	**0.0000274 J**	**0.0000969 J**	**0.0000362**	**0.000169 J**
PCB-004	E1668C	**0.000742**	**0.000373**	**0.000242**	**0.000337**	**0.000353**	**0.000635**	**0.000414**	**0.000806**
PCB-005	E1668C	0.0000256 U	0.0000111 U	0.0000133 U	0.0000338 U	0.0000133 U	**0.0000263**	0.0000131 U	0.0000371 U
PCB-006	E1668C	**0.000508**	**0.0000798 J**	**0.000136 J**	**0.000152 J**	**0.000207**	**0.000526**	**0.000205**	**0.000512**
PCB-007	E1668C	**0.0000324**	0.0000108 U	**0.0000127**	**0.0000205**	**0.0000128**	**0.0000552**	**0.0000248**	**0.0000498**
PCB-008	E1668C	**0.000881**	**0.000155**	**0.000276**	**0.000366**	**0.000308**	**0.00115**	**0.000402**	**0.00104**
PCB-009	E1668C	**0.0000674**	**0.0000144**	**0.0000189**	**0.0000291**	**0.0000171**	**0.0000722**	**0.0000233**	**0.0000666**
PCB-010	E1668C	**0.0000328**	**0.0000197**	**0.0000168**	**0.0000154**	**0.0000144**	**0.0000256**	**0.0000221**	**0.0000252**
PCB-011	E1668C	**0.0000537**	**0.0000186**	**0.0000217**	**0.0000283**	**0.0000363**	**0.0000673**	**0.0000337**	**0.000114 J**
PCB-012/013	E1668C	**0.000192**	**0.0000396**	**0.000088**	**0.0000798**	**0.0000853**	**0.000275**	**0.0000734**	**0.000302**
PCB-014	E1668C	0.0000255 U	0.000011 U	0.0000132 U	0.0000336 U	0.0000132 U	0.0000131 U	0.0000128 U	0.0000364 U
PCB-015	E1668C	**0.000923**	**0.000183 J**	**0.00039**	**0.000419**	**0.000326 J**	**0.00153**	**0.00046**	**0.00143**
PCB-016	E1668C	**0.000715**	**0.000104**	**0.000224**	**0.000328**	**0.000242**	**0.000835**	**0.000355**	**0.000798**
PCB-017	E1668C	**0.00122**	**0.000228**	**0.000401**	**0.000473**	**0.000431**	**0.00108**	**0.000539**	**0.00118**
PCB-018/030	E1668C	**0.00162**	**0.000238**	**0.00053**	**0.000717**	**0.000558**	**0.00172**	**0.000767**	**0.00167**
PCB-019	E1668C	**0.000349**	**0.000249**	**0.000141**	**0.000158**	**0.000212**	**0.000379**	**0.000257**	**0.000466**
PCB-020/028	E1668C	**0.00273**	**0.000428**	**0.00103**	**0.00137**	**0.00105**	**0.00328**	**0.00131**	**0.00368**
PCB-021/033	E1668C	**0.000846**	**0.000151**	**0.000331**	**0.000428**	**0.000313**	**0.000945**	**0.000433**	**0.00103**
PCB-022	E1668C	**0.000661**	**0.000112**	**0.000236**	**0.000316**	**0.000252**	**0.000759**	**0.000307**	**0.000826**
PCB-023	E1668C	0.0000206 U	0.0000192 U	0.0000255 U	0.0000193 U	0.0000223 U	0.0000447 U	0.0000352 U	0.0000305 U
PCB-024	E1668C	**0.0000298**	0.00000854 U	**0.0000118 J**	**0.00000966 J**	**0.0000121 J**	**0.0000241 J**	**0.0000163 J**	**0.0000303 J**
PCB-025	E1668C	**0.00112**	**0.00016**	**0.000352**	**0.000467**	**0.000551**	**0.000987**	**0.000467**	**0.00113**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP22-C-4	VP22-D-3	VP22-E-2	VP22-F/G-2/3	VP22-F/G-3/4	VP22-H-2	VP22-H-3/4	VP22-I-3
	Sample ID	VP22-C-4-PSBL-SED	VP22-D-3-PSBL-SED	VP22-E-2-PSBL-SED	VP22-F/G-2/3-PSBL-SED	VP22-F/G-3/4-PSBL-SED	VP22-H-2-PSBL-SED	VP22-H-3/4-PSBL-SED	VP22-FD-2
	Sample Date	5/31/2024	5/31/2024	5/31/2024	5/31/2024	5/31/2024	5/31/2024	5/31/2024	5/31/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	N	FD
	Matrix	SO	SO	SO	SO	SO	SO	SO	SO
PCB-026/029	E1668C	**0.00288**	**0.000426**	**0.001**	**0.00131**	**0.00148**	**0.00262**	**0.00112**	**0.00294**
PCB-027	E1668C	**0.000396**	**0.000108**	**0.000115**	**0.000118**	**0.000172**	**0.000289**	**0.000174**	**0.000347**
PCB-031	E1668C	**0.00247**	**0.000405**	**0.00103**	**0.0013**	**0.00098**	**0.00283**	**0.00118**	**0.00339**
PCB-032	E1668C	**0.000755**	**0.000146**	**0.000246**	**0.000279**	**0.000277**	**0.000674**	**0.000338**	**0.000722**
PCB-034	E1668C	0.0000213 U	0.0000199 U	0.0000263 U	0.000020 U	0.000023 U	0.0000462 U	0.0000358 U	**0.0000322**
PCB-035	E1668C	**0.0000604**	0.0000195 U	0.0000258 U	**0.0000489 J**	0.0000226 U	**0.000136**	0.0000368 U	**0.000175**
PCB-036	E1668C	0.0000177 U	0.0000166 U	0.0000219 U	0.0000167 U	0.0000192 U	0.0000385 U	0.0000306 U	0.0000265 U
PCB-037	E1668C	**0.000924**	**0.000169**	**0.000474**	**0.000623**	**0.000316**	**0.0018**	**0.0005**	**0.00188**
PCB-038	E1668C	0.0000199 U	0.0000186 U	0.0000246 U	0.0000187 U	0.0000215 U	0.0000431 U	0.0000336 U	0.0000291 U
PCB-039	E1668C	**0.0000362**	0.0000186 U	0.0000246 U	0.0000187 U	0.0000216 U	0.0000432 U	0.0000339 U	0.0000293 U
PCB-040/071	E1668C	**0.00178**	**0.000427**	**0.00101**	**0.00132**	**0.000909**	**0.00226**	**0.00111**	**0.00249**
PCB-041	E1668C	**0.000155**	0.0000116 U	**0.0000717**	**0.0000791 J**	**0.0000722**	**0.00016**	**0.000124**	**0.000214**
PCB-042	E1668C	**0.00166**	**0.000296**	**0.000902**	**0.00116**	**0.000792**	**0.00205**	**0.001**	**0.0023**
PCB-043	E1668C	**0.000169**	**0.0000197 J**	**0.0000798**	**0.000114**	**0.0000847 J**	**0.00023**	**0.000125**	**0.000146 J**
PCB-044/047/065	E1668C	**0.0142**	**0.00331**	**0.00874**	**0.0102**	**0.00693**	**0.0184**	**0.00832**	**0.0205**
PCB-045	E1668C	**0.000333**	**0.0000587**	**0.000134**	**0.000213**	**0.000107**	**0.000367**	**0.000211**	**0.000547**
PCB-046	E1668C	**0.000252**	**0.0000493 J**	**0.0000982**	**0.00012**	**0.00013**	**0.000212**	**0.000118 J**	**0.00023**
PCB-048	E1668C	**0.000455**	**0.000104**	**0.000262**	**0.000297**	**0.000227**	**0.000551**	**0.000276**	**0.000551**
PCB-049/069	E1668C	**0.0182 J**	**0.0039**	**0.0109**	**0.0107**	**0.00832**	**0.0256 J**	**0.0106**	**0.0334 J**
PCB-050/053	E1668C	**0.00167**	**0.000395**	**0.00057**	**0.000706**	**0.000826**	**0.00124**	**0.000773**	**0.00142**
PCB-051	E1668C	**0.00124**	**0.000342**	**0.000322**	**0.000318**	**0.000627**	**0.000687**	**0.000549**	**0.000672**
PCB-052	E1668C	**0.0252 J**	**0.00613**	**0.0198 J**	**0.0256 J**	**0.0138 J**	**0.0417 J**	**0.0187 J**	**0.0541 J**
PCB-054	E1668C	**0.000181**	**0.0000786**	**0.0000402**	**0.0000417**	**0.0000979**	**0.000118**	**0.0000762 J**	**0.000163 J**
PCB-055	E1668C	0.000325 U	0.0000929 U	0.000214 U	0.000231 U	0.000117 U	0.000484 U	0.000202 U	0.000382 U
PCB-056	E1668C	**0.00239**	**0.000598**	**0.00181**	**0.00231**	**0.00093**	**0.00432**	**0.00196**	**0.00515**
PCB-057	E1668C	0.000354 U	0.000101 U	0.000233 U	0.000252 U	0.000128 U	0.000529 U	0.000231 U	0.000436 U
PCB-058	E1668C	0.000314 U	0.0000897 U	0.000207 U	0.000223 U	0.000113 U	0.000468 U	0.000204 U	0.000385 U
PCB-059/062/075	E1668C	**0.000979**	**0.000164**	**0.000716**	**0.000591**	**0.000347**	**0.00152**	**0.000593**	**0.00174**
PCB-060	E1668C	**0.00131**	**0.000277**	**0.000889**	**0.00103**	**0.000496**	**0.00178**	**0.000992**	**0.002**
PCB-061/070/074/076	E1668C	**0.0305**	**0.0075**	**0.0249**	**0.0332 J**	**0.0123**	**0.0578 J**	**0.0248**	**0.0647 J**
PCB-063	E1668C	**0.000697**	0.000111 U	**0.000438**	**0.000469**	**0.000314**	**0.000729**	**0.000534**	**0.000851**
PCB-064	E1668C	**0.00589**	**0.00112**	**0.00484**	**0.00572**	**0.00191**	**0.011 J**	**0.00455**	**0.0117 J**
PCB-066	E1668C	**0.0148 J**	**0.00265**	**0.0122 J**	**0.0149 J**	**0.00351**	**0.0324 J**	**0.00989 J**	**0.0325 J**
PCB-067	E1668C	0.000305 U	0.0000872 U	**0.000183**	0.000216 U	0.00011 U	0.000454 U	0.000198 U	0.000374 U
PCB-068	E1668C	**0.00232**	**0.000448**	**0.00145**	**0.00165**	**0.000898**	**0.00318**	**0.00133**	**0.00281**
PCB-072	E1668C	**0.00292**	**0.000566**	**0.0021**	**0.00269**	**0.00124**	**0.00468**	**0.00221**	**0.0046**
PCB-073	E1668C	**0.000452**	**0.000131**	**0.0002**	**0.00024**	**0.000228**	**0.000398**	**0.000277**	**0.000489**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP22-C-4	VP22-D-3	VP22-E-2	VP22-F/G-2/3	VP22-F/G-3/4	VP22-H-2	VP22-H-3/4	VP22-I-3
	Sample ID	VP22-C-4-PSBL-SED	VP22-D-3-PSBL-SED	VP22-E-2-PSBL-SED	VP22-F/G-2/3-PSBL-SED	VP22-F/G-3/4-PSBL-SED	VP22-H-2-PSBL-SED	VP22-H-3/4-PSBL-SED	VP22-FD-2
	Sample Date	5/31/2024	5/31/2024	5/31/2024	5/31/2024	5/31/2024	5/31/2024	5/31/2024	5/31/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	N	FD
	Matrix	SO	SO	SO	SO	SO	SO	SO	SO
PCB-077	E1668C	**0.0031**	**0.000598**	**0.00151**	**0.00239**	**0.000574**	**0.00591**	**0.0013**	**0.00579**
PCB-078	E1668C	0.000377 U	0.000108 U	0.000248 U	0.000268 U	0.000136 U	0.000562 U	0.000247 U	0.000466 U
PCB-079	E1668C	**0.000721**	**0.000224**	**0.000901**	**0.000885**	**0.000339**	**0.00197**	**0.000701**	**0.00209**
PCB-080	E1668C	0.000338 U	0.0000966 U	0.000222 U	0.00024 U	0.000122 U	0.000504 U	0.000219 U	0.000413 U
PCB-081	E1668C	0.000321 U	0.000092 U	0.000212 U	0.000228 U	0.000116 U	**-- R**	0.000213 U	0.000403 U
PCB-082	E1668C	**0.00727**	**0.00253**	**0.00748 J**	**0.0149 J**	**0.00314**	**0.0361 J**	**0.00461**	**0.0337 J**
PCB-083	E1668C	0.000643 U	**0.0012**	**0.00314**	**0.0069**	**0.00129**	**0.0235 J**	**0.00243**	**0.0225 J**
PCB-084	E1668C	**0.0104 J**	**0.00373**	**0.0109 J**	**0.0215 J**	**0.00559**	**0.047 J**	**0.00621**	**0.0429 J**
PCB-085/116	E1668C	**0.0584 J**	**0.0191 J**	**0.0566 J**	**0.133 J**	**0.0256 J**	**0.205 J**	**0.0348 J**	**0.177 J**
PCB-086/087/097/109/119/125	E1668C	**0.113 J**	**0.0308**	**0.104 J**	**0.196 J**	**0.0433**	**0.468 J**	**0.071 J**	**0.469 J**
PCB-088	E1668C	0.000635 U	0.000212 U	0.000513 U	0.00113 U	0.000307 U	0.00232 U	0.000464 U	0.0026 U
PCB-089	E1668C	0.000551 U	0.000184 U	0.000446 U	0.000981 U	0.000267 U	0.00201 U	0.000378 U	0.00212 U
PCB-090/101/113	E1668C	**0.294 J**	**0.0724 J**	**0.221 J**	**0.348 J**	**0.127 J**	**0.966 J**	**0.174 J**	**1.06 J**
PCB-091	E1668C	**0.0329 J**	**0.00634**	**0.0286 J**	**0.0543 J**	**0.008 J**	**0.117 J**	**0.0129 J**	**0.1 J**
PCB-092	E1668C	**0.0916 J**	**0.0179 J**	**0.0698 J**	**0.134 J**	**0.0257 J**	**0.318 J**	**0.0485 J**	**0.294 J**
PCB-093/100	E1668C	**0.00533**	**0.000848**	**0.00259**	**0.00362**	**0.00105**	**0.0111**	**0.00115**	**0.00979**
PCB-094	E1668C	0.000635 U	0.000212 U	0.000513 U	0.00113 U	0.000307 U	0.00232 U	0.000441 U	0.00247 U
PCB-095	E1668C	**0.125 J**	**0.0264 J**	**0.115 J**	**0.19 J**	**0.0342 J**	**0.571 J**	**0.0567 J**	**0.516 J**
PCB-096	E1668C	**0.000451**	**0.000102**	**0.000293**	**0.000285**	**0.000173**	**0.000851 J**	**0.000153 J**	**0.000759**
PCB-098	E1668C	0.000564 U	0.000188 U	0.000456 U	0.0010 U	0.000273 U	0.00206 U	0.000372 U	0.00208 U
PCB-099	E1668C	**0.167 J**	**0.0395 J**	**0.153 J**	**0.276 J**	**0.0452 J**	**0.574 J**	**0.0879 J**	**0.512 J**
PCB-102	E1668C	**0.00104**	**0.00025**	**0.000807**	**0.00128**	**0.000418**	**0.00354**	**0.000486**	**0.00348**
PCB-103	E1668C	**0.0084 J**	**0.00131**	**0.00406**	**0.00547**	**0.00222**	**0.0172 J**	**0.00301**	**0.0163 J**
PCB-104	E1668C	**0.000116**	**0.0000267 J**	**0.000038**	**0.0000223**	**0.0000314 J**	**0.000114**	**0.0000461**	**0.000141**
PCB-105	E1668C	**0.125 J**	**0.0392 J**	**0.0712 J**	**0.125 J**	**0.0708 J**	**0.206 J**	**0.101 J**	**0.231 J**
PCB-106	E1668C	0.000396 U	0.000132 U	0.00032 U	0.000704 U	0.000191 U	0.00144 U	0.000272 U	0.00152 U
PCB-107	E1668C	**0.0291 J**	**0.00989 J**	**0.0205 J**	**0.0425 J**	**0.0174 J**	**0.0719 J**	**0.0191 J**	**0.0648 J**
PCB-108/124	E1668C	**0.0166 J**	**0.00567**	**0.0137**	**0.0314 J**	**0.0093**	**0.0512 J**	**0.0112**	**0.0479 J**
PCB-110	E1668C	**0.413 J**	**0.116 J**	**0.395 J**	**0.836 J**	**0.163 J**	**1.57 J**	**0.311 J**	**1.59 J**
PCB-111	E1668C	**0.00138**	**0.000346**	**0.00082**	**0.00143**	**0.000634**	**0.00281**	**0.00072**	0.00148 U
PCB-112	E1668C	0.000346 U	0.000116 U	0.00028 U	0.000616 U	0.000168 U	0.00126 U	0.000239 U	0.00134 U
PCB-114	E1668C	**0.00511**	**0.00151**	**0.00261**	**0.0037**	**0.00211**	**0.0076**	**0.00298**	**0.00633**
PCB-115	E1668C	0.000337 U	0.000112 U	0.000272 U	0.000599 U	0.000163 U	0.00123 U	0.000229 U	0.00128 U
PCB-117	E1668C	**0.0121 J**	**0.0032**	**0.00799 J**	**0.0152 J**	**0.00468**	**0.0317 J**	**0.00802 J**	**0.027 J**
PCB-118	E1668C	**0.385 J**	**0.104 J**	**0.261 J**	**0.378 J**	**0.219 J**	**0.65 J**	**0.287 J**	**0.691 J**
PCB-120	E1668C	**0.00453**	**0.001**	**0.00292**	**0.00531**	**0.0019**	**0.0101 J**	**0.00265**	**0.00799**
PCB-121	E1668C	**0.000891**	**0.000163 J**	0.000296 U	0.000652 U	**0.000398**	0.00134 U	**0.000237**	0.00142 U

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP22-C-4	VP22-D-3	VP22-E-2	VP22-F/G-2/3	VP22-F/G-3/4	VP22-H-2	VP22-H-3/4	VP22-I-3
	Sample ID	VP22-C-4-PSBL-SED	VP22-D-3-PSBL-SED	VP22-E-2-PSBL-SED	VP22-F/G-2/3-PSBL-SED	VP22-F/G-3/4-PSBL-SED	VP22-H-2-PSBL-SED	VP22-H-3/4-PSBL-SED	VP22-FD-2
	Sample Date	5/31/2024	5/31/2024	5/31/2024	5/31/2024	5/31/2024	5/31/2024	5/31/2024	5/31/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	N	FD
	Matrix	SO	SO	SO	SO	SO	SO	SO	SO
PCB-122	E1668C	**0.00521**	**0.00168**	**0.00312**	**0.00524**	**0.00222**	**0.0106 J**	**0.00305**	**0.00884 J**
PCB-123	E1668C	**0.00692**	**0.00281**	**0.00579**	**0.0122 J**	**0.00381**	**0.021 J**	**0.00446**	**0.0196 J**
PCB-126	E1668C	**0.0025**	**0.000582**	**0.00162**	**0.00263**	**0.0013**	**0.00425**	**0.00161**	**0.00339**
PCB-127	E1668C	**0.000986**	**0.00029**	**0.000809**	**0.00176**	0.000208 U	0.00103 U	**0.000956**	0.00147 U
PCB-128/166	E1668C	**0.193 J**	**0.0572 J**	**0.151 J**	**0.263 J**	**0.106 J**	**0.415 J**	**0.127 J**	**0.351 J**
PCB-129/138/163	E1668C	**0.873 J**	**0.419 J**	**0.774 J**	**0.995 J**	**0.726 J**	**1.21 J**	**0.762 J**	**1.21 J**
PCB-130	E1668C	**0.0386 J**	**0.019 J**	**0.0391 J**	**0.0526 J**	**0.0312 J**	**0.0676 J**	**0.0389 J**	**0.0602 J**
PCB-131	E1668C	**0.00281**	**0.00102**	**0.00319**	**0.00415**	**0.00117**	**0.00637**	**0.00209**	**0.00585**
PCB-132	E1668C	**0.159 J**	**0.0588 J**	**0.151 J**	**0.21 J**	**0.087 J**	**0.295 J**	**0.127 J**	**0.265 J**
PCB-133	E1668C	**0.0153 J**	**0.0063**	**0.0109 J**	**0.0134 J**	**0.0119 J**	**0.0186 J**	**0.0113 J**	**0.0159 J**
PCB-134	E1668C	**0.0261 J**	**0.00922 J**	**0.0244 J**	**0.0341 J**	**0.0125 J**	**0.0494 J**	**0.0214 J**	**0.0449 J**
PCB-135/151	E1668C	**0.324 J**	**0.11 J**	**0.233 J**	**0.313 J**	**0.195 J**	**0.451 J**	**0.229 J**	**0.385 J**
PCB-136	E1668C	**0.149 J**	**0.0196 J**	**0.11 J**	**0.217 J**	**0.0329 J**	**0.357 J**	**0.0706 J**	**0.325 J**
PCB-137	E1668C	**0.0151 J**	**0.00658**	**0.0173 J**	**0.0261 J**	**0.012 J**	**0.0225 J**	**0.0142 J**	**0.0275 J**
PCB-139/140	E1668C	**0.00819**	**0.00311**	**0.00722**	**0.00973**	**0.0051**	**0.0124**	**0.0066**	**0.0111**
PCB-141	E1668C	**0.153 J**	**0.0658 J**	**0.129 J**	**0.178 J**	**0.114 J**	**0.249 J**	**0.129 J**	**0.223 J**
PCB-142	E1668C	0.0000173 U	0.000026 U	0.0000204 U	0.0000181 U	0.0000267 U	0.000020 U	0.0000308 U	0.0000218 U
PCB-143	E1668C	0.0000155 U	0.0000233 U	0.0000182 U	0.0000162 U	0.0000239 U	0.0000178 U	0.000026 U	0.0000184 U
PCB-144	E1668C	**0.0284 J**	**0.00851 J**	**0.0232 J**	**0.032 J**	**0.0133 J**	**0.0473 J**	**0.0198 J**	**0.0413 J**
PCB-145	E1668C	0.0000228 U	0.0000204 U	0.0000278 U	**0.000326**	**0.0000501**	0.0000277 U	0.0000402 U	**0.000422 J**
PCB-146	E1668C	**0.134 J**	**0.0492 J**	**0.101 J**	**0.131 J**	**0.0881 J**	**0.178 J**	**0.104 J**	**0.157 J**
PCB-147/149	E1668C	**0.629 J**	**0.236 J**	**0.479 J**	**0.63 J**	**0.385 J**	**0.909 J**	**0.458 J**	**0.833 J**
PCB-148	E1668C	**0.00309**	**0.000955**	**0.0014**	**0.00159**	**0.00225**	**0.00251**	**0.00151**	**0.00196**
PCB-150	E1668C	**0.00466**	**0.000573**	**0.00177**	**0.00281**	**0.00155**	**0.00511**	**0.00149**	**0.00483**
PCB-152	E1668C	**0.00134**	**0.000186**	**0.00054**	**0.000908**	**0.000406**	**0.00152**	**0.000483**	**0.00164**
PCB-153/168	E1668C	**0.838 J**	**0.353 J**	**0.674 J**	**0.849 J**	**0.621 J**	**1.03 J**	**0.679 J**	**1.03 J**
PCB-154	E1668C	**0.016 J**	**0.00453**	**0.00937 J**	**0.0104 J**	**0.00755**	**0.0163 J**	**0.00891 J**	**0.0137 J**
PCB-155	E1668C	**0.000207**	**0.0000308 J**	**0.0000559**	**0.0000796**	**0.0000536**	**0.000168**	**0.0000557**	**0.000184**
PCB-156/157	E1668C	**0.119 J**	**0.035 J**	**0.086 J**	**0.142 J**	**0.0699 J**	**0.228 J**	**0.106 J**	**0.226 J**
PCB-158	E1668C	**0.0606 J**	**0.0257 J**	**0.0554 J**	**0.0778 J**	**0.0434 J**	**0.101 J**	**0.052 J**	**0.0931 J**
PCB-159	E1668C	**0.0314 J**	**0.00684**	**0.0163 J**	**0.0265 J**	**0.0145 J**	**0.0546 J**	**0.0159 J**	**0.0391 J**
PCB-160	E1668C	0.0000134 U	0.0000201 U	0.0000158 U	0.000014 U	0.0000207 U	0.0000154 U	0.0000228 U	0.0000161 U
PCB-161	E1668C	**0.000442**	0.0000168 U	**0.000458**	0.0000117 U	0.0000173 U	**0.000512**	0.0000192 U	**0.000459 J**
PCB-162	E1668C	**0.0052**	**0.00156**	**0.00383**	**0.00663**	**0.00287**	**0.0105 J**	**0.00373**	**0.00929 J**
PCB-164	E1668C	**0.0552 J**	**0.0275 J**	**0.0482 J**	**0.063 J**	**0.0465 J**	**0.089 J**	**0.0483 J**	**0.0732 J**
PCB-165	E1668C	**0.00155**	**0.000555**	**0.000674**	**0.000844**	**0.00118**	**0.00138**	**0.000825**	0.0000162 UJ
PCB-167	E1668C	**0.0589 J**	**0.0173 J**	**0.0451 J**	**0.0741 J**	**0.0313 J**	**0.128 J**	**0.0394 J**	**0.111 J**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP22-C-4	VP22-D-3	VP22-E-2	VP22-F/G-2/3	VP22-F/G-3/4	VP22-H-2	VP22-H-3/4	VP22-I-3
	Sample ID	VP22-C-4-PSBL-SED	VP22-D-3-PSBL-SED	VP22-E-2-PSBL-SED	VP22-F/G-2/3-PSBL-SED	VP22-F/G-3/4-PSBL-SED	VP22-H-2-PSBL-SED	VP22-H-3/4-PSBL-SED	VP22-FD-2
	Sample Date	5/31/2024	5/31/2024	5/31/2024	5/31/2024	5/31/2024	5/31/2024	5/31/2024	5/31/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	N	FD
	Matrix	SO	SO	SO	SO	SO	SO	SO	SO
PCB-169	E1668C	0.000182 U	0.0000729 U	0.000117 U	0.000142 U	0.0000818 U	**-- R**	0.000133 U	0.000192 U
PCB-170	E1668C	**0.727 J**	**0.191 J**	**0.416 J**	**0.554 J**	**0.531 J**	**1.04 J**	**0.386 J**	**0.779 J**
PCB-171/173	E1668C	**0.118 J**	**0.0371 J**	**0.086 J**	**0.11 J**	**0.0752 J**	**0.154 J**	**0.0817 J**	**0.143 J**
PCB-172	E1668C	**0.0766 J**	**0.0266 J**	**0.0528 J**	**0.0659 J**	**0.0548 J**	**0.0948 J**	**0.0529 J**	**0.0852 J**
PCB-174	E1668C	**0.455 J**	**0.155 J**	**0.297 J**	**0.369 J**	**0.319 J**	**0.542 J**	**0.299 J**	**0.504 J**
PCB-175	E1668C	**0.0147 J**	**0.00354**	**0.00985 J**	**0.0135 J**	**0.00687**	**0.0195 J**	**0.00917 J**	**0.0168 J**
PCB-176	E1668C	**0.115 J**	**0.0147 J**	**0.0554 J**	**0.109 J**	**0.0362 J**	**0.164 J**	**0.0539 J**	**0.141 J**
PCB-177	E1668C	**0.278 J**	**0.0975 J**	**0.183 J**	**0.225 J**	**0.202 J**	**0.325 J**	**0.187 J**	**0.299 J**
PCB-178	E1668C	**0.267 J**	**0.0466 J**	**0.113 J**	**0.204 J**	**0.127 J**	**0.315 J**	**0.121 J**	**0.271 J**
PCB-179	E1668C	**0.439 J**	**0.0716 J**	**0.198 J**	**0.372 J**	**0.19 J**	**0.552 J**	**0.209 J**	**0.48 J**
PCB-180/193	E1668C	**0.923 J**	**0.308 J**	**0.629 J**	**0.784 J**	**0.614 J**	**1.14 J**	**0.633 J**	**1.07 J**
PCB-181	E1668C	**0.00207**	**0.000945**	**0.00177**	**0.00226**	**0.00168**	**0.00288**	0.000123 U	**0.00277**
PCB-182	E1668C	**0.00378**	**0.00112**	**0.00208**	**0.00244**	**0.00219**	**0.00325**	**0.00243**	**0.00285**
PCB-183	E1668C	**0.211 J**	**0.0562 J**	**0.151 J**	**0.189 J**	**0.118 J**	**0.279 J**	**0.14 J**	**0.258 J**
PCB-184	E1668C	**0.000565**	0.0000183 U	**0.000224**	**0.000475**	0.000017 U	**0.000571**	0.0000387 U	**0.000517**
PCB-185	E1668C	**0.0679 J**	**0.0222 J**	**0.0338 J**	**0.0528 J**	**0.0397 J**	**0.0632 J**	**0.042 J**	**0.0566 J**
PCB-186	E1668C	0.0000314 U	0.0000165 U	0.0000143 U	0.0000276 U	0.0000152 U	0.0000299 U	0.000035 U	0.0000353 UJ
PCB-187	E1668C	**0.564 J**	**0.179 J**	**0.343 J**	**0.417 J**	**0.345 J**	**0.609 J**	**0.352 J**	**0.574 J**
PCB-188	E1668C	**0.00251**	**0.000419**	**0.000699**	**0.001**	**0.00116**	**0.00175**	**0.000825**	**0.00165**
PCB-189	E1668C	**0.028 J**	**0.00637**	**0.0173 J**	**0.0244 J**	**0.0147 J**	**0.0517 J**	**0.0176 J**	**0.0388 J**
PCB-190	E1668C	**0.18 J**	**0.0475 J**	**0.0947 J**	**0.123 J**	**0.138 J**	**0.233 J**	**0.0898 J**	**0.171 J**
PCB-191	E1668C	**0.018 J**	**0.00428**	**0.0123 J**	**0.0163 J**	**0.00831 J**	**0.0176 J**	**0.0122 J**	**0.0184 J**
PCB-192	E1668C	0.0000863 U	0.0000756 U	0.0000932 U	0.0000781 U	0.0000862 U	0.0000946 U	0.0000955 U	0.000112 U
PCB-194	E1668C	**0.471 J**	**0.0946 J**	**0.219 J**	**0.39 J**	**0.216 J**	**0.618 J**	**0.256 J**	**0.522 J**
PCB-195	E1668C	**0.226 J**	**0.0492 J**	**0.102 J**	**0.181 J**	**0.111 J**	**0.285 J**	**0.127 J**	**0.246 J**
PCB-196	E1668C	**0.214 J**	**0.0355 J**	**0.0936 J**	**0.154 J**	**0.0799 J**	**0.355 J**	**0.105 J**	**0.227 J**
PCB-197	E1668C	**0.0153 J**	**0.00232**	**0.00653**	**0.0112 J**	**0.00497**	**0.0251 J**	**0.00674**	**0.0158 J**
PCB-198/199	E1668C	**0.5 J**	**0.107 J**	**0.208 J**	**0.325 J**	**0.249 J**	**0.77 J**	**0.25 J**	**0.485 J**
PCB-200	E1668C	**0.0702 J**	**0.0142 J**	**0.0296 J**	**0.0448 J**	**0.0338 J**	**0.107 J**	**0.0352 J**	**0.0674 J**
PCB-201	E1668C	**0.0529 J**	**0.00747**	**0.0218 J**	**0.0365 J**	**0.0168 J**	**0.0844 J**	**0.0246 J**	**0.0524 J**
PCB-202	E1668C	**0.0908 J**	**0.0193 J**	**0.0375 J**	**0.0585 J**	**0.0452 J**	**0.138 J**	**0.0446 J**	**0.0844 J**
PCB-203	E1668C	**0.305 J**	**0.0646 J**	**0.13 J**	**0.206 J**	**0.149 J**	**0.477 J**	**0.153 J**	**0.296 J**
PCB-204	E1668C	0.000045 U	0.0000205 U	**0.0000598 J**	**0.0000889**	**0.0000477**	**0.000171**	0.0000436 U	**0.000118**
PCB-205	E1668C	**0.0292 J**	**0.00641**	**0.0132 J**	**0.023 J**	**0.0145 J**	**0.0364 J**	**0.017 J**	**0.0329 J**
PCB-206	E1668C	**0.138 J**	**0.0294 J**	**0.0791 J**	**0.128 J**	**0.0703 J**	**0.266 J**	**0.078 J**	**0.194 J**
PCB-207	E1668C	**0.0161 J**	**0.00246**	**0.00709**	**0.0125 J**	**0.00651**	**0.026 J**	**0.00941 J**	**0.0177 J**
PCB-208	E1668C	**0.0292 J**	**0.00625**	**0.0153 J**	**0.0284 J**	**0.015 J**	**0.0573 J**	**0.0203 J**	**0.0362 J**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP22-C-4	VP22-D-3	VP22-E-2	VP22-F/G-2/3	VP22-F/G-3/4	VP22-H-2	VP22-H-3/4	VP22-I-3
	Sample ID	VP22-C-4-PSBL-SED	VP22-D-3-PSBL-SED	VP22-E-2-PSBL-SED	VP22-F/G-2/3-PSBL-SED	VP22-F/G-3/4-PSBL-SED	VP22-H-2-PSBL-SED	VP22-H-3/4-PSBL-SED	VP22-FD-2
	Sample Date	5/31/2024	5/31/2024	5/31/2024	5/31/2024	5/31/2024	5/31/2024	5/31/2024	5/31/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	N	FD
	Matrix	SO	SO	SO	SO	SO	SO	SO	SO
PCB-209	E1668C	**0.0151 J**	**0.00513**	**0.0115 J**	**0.0247 J**	**0.0072**	**0.0389 J**	**0.0114 J**	**0.0239 J**
Total PCB Congener (U = 0 max limit)		**13 J**	**3.8 J**	**8.5 J**	**13 J**	**7.4 J**	**21 J**	**8.3 J**	**19 J**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

		Location ID	VP22-I-3	VP27-E/F-6	VP27-F-4	VP27-F-5	VP9-FL000954	VP9-V/W-14	VP9-V-15/16
		Sample ID	VP22-I-3-PSBL-SED	VP27-E/F-6-PSBL-SED	VP27-F-4-PSBL-SED	VP27-F-5-PSBL-SED	VP9-FL000954-PSBL-SED	VP9-V/W-14-PSBL-SED	VP9-V-15/16-PSBL-SED
		Sample Date	5/31/2024	5/30/2024	5/30/2024	5/30/2024	5/29/2024	5/29/2024	5/29/2024
		Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
		Sample Type	N	N	N	N	N	N	N
		Matrix	SO	SO	SO	SO	SO	SO	SO
Conventional Parameters (pct)									
Total organic carbon	LloydKahn		**6.56**	**3.11**	**5.16**	**4.59**	**3.74**	**5.02**	**4.16**
Total solids	SM2540G		**44.5**	**64.8**	**58.0**	**63.2**	**62.6**	**58.3**	**59.7**
PCB Aroclors (mg/kg)									
Aroclor 1016	SW8082A		0.042 U	0.031 U	0.034 U	0.031 U	0.031 U	0.033 U	0.032 U
Aroclor 1221	SW8082A		0.042 U	0.031 U	0.034 U	0.031 U	0.031 U	0.033 U	0.032 U
Aroclor 1232	SW8082A		0.042 U	0.031 U	0.034 U	0.031 U	0.031 U	0.033 U	0.032 U
Aroclor 1242	SW8082A		0.042 U	0.031 U	0.034 U	0.031 U	0.031 U	0.033 U	0.032 U
Aroclor 1248	SW8082A		0.042 U	0.031 U	0.034 U	0.031 U	0.031 U	0.033 U	0.032 U
Aroclor 1254	SW8082A		0.042 U	0.031 U	0.034 U	0.031 U	0.031 U	0.033 U	0.032 U
Aroclor 1260	SW8082A		**1.29 J**	**3.3**	**1.15**	**1.52**	**3.07**	**1.39**	**3 J**
Total PCB Aroclors (U = 0 max limit)			**1.29 J**	**3.3**	**1.15**	**1.52**	**3.07**	**1.39**	**3.0 J**
PCB Congeners (mg/kg)									
PCB-001	E1668C		**0.0000831 J**	**0.000115**	**0.0000616 J**	**0.0000632**	**0.0000821**	**0.000114**	**0.000097**
PCB-002	E1668C		**0.000035 J**	**0.0000154**	0.00000374 U	**0.00000927**	**0.0000159 J**	**0.0000237**	**0.0000292**
PCB-003	E1668C		**0.000079 J**	**0.0000723**	**0.0000348 J**	**0.0000312 J**	**0.0000618**	**0.0000763**	**0.0000749 J**
PCB-004	E1668C		**0.000605**	**0.00112**	**0.00105**	**0.000663**	**0.00054**	**0.000826**	**0.000651 J**
PCB-005	E1668C		0.00000882 U	**0.0000169**	0.00000671 U	**0.00000695**	**0.0000229**	0.0000188 U	**0.0000126**
PCB-006	E1668C		**0.000386**	**0.000486**	**0.000319**	**0.000254**	**0.000323**	**0.000514**	**0.00032**
PCB-007	E1668C		**0.0000364**	**0.0000446**	**0.0000287**	**0.000014 J**	**0.0000343**	**0.0000331**	**0.0000274**
PCB-008	E1668C		**0.000835**	**0.000754**	**0.000507**	**0.000398**	**0.000559**	**0.000867**	**0.000479**
PCB-009	E1668C		**0.0000536**	**0.0000554**	**0.0000465**	**0.0000243 J**	**0.0000535**	**0.0000567**	**0.0000548**
PCB-010	E1668C		**0.000023**	**0.0000536**	**0.0000309 J**	**0.0000212**	**0.000017**	**0.000024**	**0.0000275**
PCB-011	E1668C		**0.0000437 J**	**0.0000545**	**0.0000523**	**0.0000238**	**0.0000482**	**0.0000636**	**0.0000475**
PCB-012/013	E1668C		**0.000206**	**0.000245**	**0.000149**	**0.000129**	**0.000146**	**0.000236**	**0.000163**
PCB-014	E1668C		0.00000865 U	0.0000103 U	0.00000652 U	0.00000559 U	0.0000225 U	0.0000182 U	0.0000157 U
PCB-015	E1668C		**0.00118**	**0.000974**	**0.000608**	**0.000478**	**0.000655**	**0.00118**	**0.000732**
PCB-016	E1668C		**0.000566**	**0.000485**	**0.000318**	**0.000239**	0.0000217 U	**0.000622**	**0.000412**
PCB-017	E1668C		**0.000791**	**0.00125**	**0.000956**	**0.000576**	**0.000678**	**0.00103**	**0.000776**
PCB-018/030	E1668C		**0.00118**	**0.00129**	**0.000844**	**0.000601**	**0.00104**	**0.0013**	**0.000913**
PCB-019	E1668C		**0.00029**	**0.000667**	**0.000615**	**0.000403**	**0.000295**	**0.000411**	**0.000383**
PCB-020/028	E1668C		**0.00275**	**0.00208**	**0.00137**	**0.00117**	**0.00238**	**0.00251**	**0.00188**
PCB-021/033	E1668C		**0.000838**	**0.000556**	**0.000332**	**0.000261**	**0.000641**	**0.000701**	**0.000516**
PCB-022	E1668C		**0.000603**	**0.000444**	**0.000326**	**0.000281**	**0.000574**	**0.000558**	**0.000377**
PCB-023	E1668C		0.0000215 U	0.0000267 U	0.000016 U	0.0000151 U	0.000032 U	0.0000249 U	0.000034 U
PCB-024	E1668C		**0.0000217**	**0.0000345**	**0.0000209**	**0.0000144**	**0.000342**	**0.0000335**	**0.0000182 J**
PCB-025	E1668C		**0.000814**	**0.00113**	**0.000829**	**0.000742**	**0.000944**	**0.00104**	**0.00107**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP22-I-3	VP27-E/F-6	VP27-F-4	VP27-F-5	VP9-FL000954	VP9-V/W-14	VP9-V-15/16
	Sample ID	VP22-I-3-PSBL-SED	VP27-E/F-6-PSBL-SED	VP27-F-4-PSBL-SED	VP27-F-5-PSBL-SED	VP9-FL000954-PSBL-SED	VP9-V/W-14-PSBL-SED	VP9-V-15/16-PSBL-SED
	Sample Date	5/31/2024	5/30/2024	5/30/2024	5/30/2024	5/29/2024	5/29/2024	5/29/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	N
	Matrix	SO	SO	SO	SO	SO	SO	SO
PCB-026/029	E1668C	**0.00219**	**0.00289**	**0.00201**	**0.0018**	**0.0027**	**0.00287**	**0.00299**
PCB-027	E1668C	**0.000221**	**0.000557**	**0.000386**	**0.000263**	**0.000171 J**	**0.000281 J**	**0.000277 J**
PCB-031	E1668C	**0.00256**	**0.00204**	**0.00134**	**0.00119**	**0.00244**	**0.00298**	**0.00201**
PCB-032	E1668C	**0.00052**	**0.000817**	**0.000516**	**0.000367**	**0.000459**	**0.000578**	**0.000439**
PCB-034	E1668C	0.0000219 U	0.0000279 U	0.0000165 U	0.0000156 U	0.0000342 U	0.0000266 U	0.0000363 U
PCB-035	E1668C	**0.000121**	**0.0000355 J**	0.0000161 U	**0.0000244 J**	**0.0000784 J**	**0.0000865 J**	**0.0000795**
PCB-036	E1668C	0.0000187 U	0.0000234 U	0.0000141 U	0.0000133 U	0.000029 U	0.0000226 U	0.0000308 U
PCB-037	E1668C	**0.0014**	**0.000533**	**0.000358**	**0.000321**	**0.00108**	**0.00119**	**0.000801**
PCB-038	E1668C	0.0000205 U	0.0000262 U	0.0000155 U	0.0000147 U	0.0000319 U	0.0000249 U	0.0000339 U
PCB-039	E1668C	**0.0000404**	0.0000261 U	0.0000157 U	0.0000148 U	0.0000323 U	**0.0000404**	0.0000344 U
PCB-040/071	E1668C	**0.00239**	**0.00204**	**0.00127**	**0.00116**	**0.00186**	**0.00168**	**0.00269**
PCB-041	E1668C	**0.000191**	0.0000109 U	**0.000083**	**0.0000752**	**0.000236**	**0.000144**	**0.000152**
PCB-042	E1668C	**0.00224**	**0.0017**	**0.00116**	**0.00105**	**0.00167**	**0.00146**	**0.00232**
PCB-043	E1668C	**0.000269 J**	**0.000311**	0.00000856 U	**0.000106**	**0.000177 J**	**0.000176**	**0.000264**
PCB-044/047/065	E1668C	**0.0202**	**0.0175**	**0.0112**	**0.00931**	**0.0138**	**0.0116**	**0.0194**
PCB-045	E1668C	**0.000355**	**0.0003**	**0.000172**	**0.000152**	**0.000283 J**	**0.000378**	**0.00039**
PCB-046	E1668C	**0.000213**	**0.000259**	**0.000209**	**0.000159**	**0.000213**	**0.000186**	**0.000258**
PCB-048	E1668C	**0.000581**	**0.000498**	**0.000278**	**0.000179**	**0.000457**	**0.000474**	**0.000505 J**
PCB-049/069	E1668C	**0.0325 J**	**0.0395 J**	**0.0222 J**	**0.0167 J**	**0.0228 J**	**0.0292 J**	**0.0308 J**
PCB-050/053	E1668C	**0.00132**	**0.00226**	**0.00181**	**0.00137**	**0.00113**	**0.00107**	**0.00191**
PCB-051	E1668C	**0.000673**	**0.00161**	**0.00159**	**0.0012**	**0.000471**	**0.00047**	**0.000879**
PCB-052	E1668C	**0.0531 J**	**0.052 J**	**0.0252 J**	**0.0221 J**	**0.0439 J**	**0.0462 J**	**0.0642 J**
PCB-054	E1668C	**0.0000962 J**	**0.000313**	**0.000199**	**0.000166**	**0.0000688 J**	**0.000107 J**	**0.000138 J**
PCB-055	E1668C	0.00033 U	0.000202 U	0.000119 U	0.000135 U	0.000837 U	0.000934 U	0.000843 U
PCB-056	E1668C	**0.00507**	**0.00172**	**0.00118**	**0.000897**	**0.00291**	**0.00415**	**0.00391**
PCB-057	E1668C	0.000376 U	0.000233 U	0.000132 U	0.000149 U	0.000896 U	0.000999 U	0.000902 U
PCB-058	E1668C	0.000332 U	0.000208 U	**0.000145**	0.000133 U	0.000805 U	0.000897 U	0.00081 U
PCB-059/062/075	E1668C	**0.00156**	**0.00122**	**0.000854**	**0.000505**	**0.000912**	**0.000969**	**0.00126**
PCB-060	E1668C	**0.00197**	**0.000713**	**0.000688**	**0.000509**	**0.00128**	**0.00243**	**0.00192**
PCB-061/070/074/076	E1668C	**0.0659 J**	**0.0286 J**	**0.0164**	**0.0153**	**0.051 J**	**0.0703 J**	**0.07 J**
PCB-063	E1668C	**0.000832**	**0.0005**	**0.000488**	**0.000423**	0.000972 U	**0.000915**	0.000978 U
PCB-064	E1668C	**0.012 J**	**0.00504**	**0.00393**	**0.00252**	**0.00834 J**	**0.0108 J**	**0.0103 J**
PCB-066	E1668C	**0.0336 J**	**0.01 J**	**0.00503**	**0.00365**	**0.0206 J**	**0.0208 J**	**0.026 J**
PCB-067	E1668C	0.000322 U	0.000202 U	**0.000196**	**0.000158**	0.00079 U	0.000881 U	0.000795 U
PCB-068	E1668C	**0.00264**	**0.00258**	**0.00152**	**0.00147**	**0.00109**	**0.00172**	**0.00198**
PCB-072	E1668C	**0.00478**	**0.00306**	**0.00179**	**0.0019**	**0.00187**	**0.00285**	**0.00273**
PCB-073	E1668C	**0.000494**	**0.00113**	**0.000616**	**0.000371**	**0.000429**	**0.000487**	**0.000454**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP22-I-3	VP27-E/F-6	VP27-F-4	VP27-F-5	VP9-FL000954	VP9-V/W-14	VP9-V-15/16
	Sample ID	VP22-I-3-PSBL-SED	VP27-E/F-6-PSBL-SED	VP27-F-4-PSBL-SED	VP27-F-5-PSBL-SED	VP9-FL000954-PSBL-SED	VP9-V/W-14-PSBL-SED	VP9-V-15/16-PSBL-SED
	Sample Date	5/31/2024	5/30/2024	5/30/2024	5/30/2024	5/29/2024	5/29/2024	5/29/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	N
	Matrix	SO	SO	SO	SO	SO	SO	SO
PCB-077	E1668C	**0.00477**	**0.00175**	**0.000589**	**0.000785**	**0.00297**	**0.0034**	**0.00211**
PCB-078	E1668C	0.000402 U	0.00025 U	0.000142 U	0.00016 U	0.000982 U	0.0011 U	0.000989 U
PCB-079	E1668C	**0.00262**	**0.000945 J**	**0.000509**	**0.000507**	**0.00129 J**	**0.0011**	**0.00177**
PCB-080	E1668C	0.000357 U	0.000216 U	0.000129 U	0.000145 U	0.000866 U	0.000966 U	0.000872 U
PCB-081	E1668C	0.000348 U	0.00022 U	0.000126 U	0.000142 U	0.000952 U	0.00106 U	0.000958 U
PCB-082	E1668C	**0.0255 J**	**0.00941 J**	**0.00338**	**0.00297**	**0.0252 J**	**0.016 J**	**0.0242 J**
PCB-083	E1668C	**0.0265 J**	**0.00769 J**	**0.00305**	0.000268 U	**0.0163 J**	**0.00856 J**	**0.0174 J**
PCB-084	E1668C	**0.0309 J**	**0.014 J**	**0.00546**	**0.00613 J**	**0.0495 J**	**0.019 J**	**0.0539 J**
PCB-085/116	E1668C	**0.138 J**	**0.0627 J**	**0.0258 J**	**0.0285 J**	**0.143 J**	**0.136 J**	**0.125 J**
PCB-086/087/097/109/119/125	E1668C	**0.352 J**	**0.165 J**	**0.066 J**	**0.066 J**	**0.329 J**	**0.294 J**	**0.291 J**
PCB-088	E1668C	0.0018 U	0.000708 U	0.000224 U	0.000266 U	0.00296 U	0.000728 U	0.00266 U
PCB-089	E1668C	0.00147 U	0.000652 U	0.000183 U	0.000217 U	0.00273 U	0.000671 U	0.00245 U
PCB-090/101/113	E1668C	**0.795 J**	**0.645 J**	**0.236 J**	**0.271 J**	**1.04 J**	**0.949 J**	**0.89 J**
PCB-091	E1668C	**0.0759 J**	**0.0556 J**	**0.0206 J**	**0.0125 J**	**0.0807 J**	**0.0597 J**	**0.067 J**
PCB-092	E1668C	**0.223 J**	**0.153 J**	**0.0607 J**	**0.0588 J**	**0.2 J**	**0.175 J**	**0.161 J**
PCB-093/100	E1668C	**0.0076**	**0.00821**	**0.00372**	**0.00171**	0.0028 U	**0.00339**	**0.00499**
PCB-094	E1668C	0.00171 U	**0.00213**	**0.00097**	**0.000413**	0.00309 U	0.000758 U	0.00277 U
PCB-095	E1668C	**0.372 J**	**0.223 J**	**0.0894 J**	**0.0615 J**	**0.544 J**	**0.296 J**	**0.436 J**
PCB-096	E1668C	**0.000611**	**0.000511**	**0.00032**	**0.000246**	**0.000727**	**0.000369 J**	**0.000728**
PCB-098	E1668C	0.00144 U	0.000559 U	0.00018 U	0.000214 U	0.00242 U	0.000593 U	0.00217 U
PCB-099	E1668C	**0.393 J**	**0.202 J**	**0.0915 J**	**0.0837 J**	**0.35 J**	**0.312 J**	**0.283 J**
PCB-102	E1668C	**0.00256**	**0.0028**	**0.000799**	**0.000514**	**0.0043**	**0.00228**	**0.00479**
PCB-103	E1668C	**0.0119 J**	**0.0169 J**	**0.00702 J**	**0.00512**	**0.00858 J**	**0.00928 J**	**0.00733 J**
PCB-104	E1668C	**0.000106 J**	**0.000219 J**	**0.000109**	**0.0000701 J**	**0.0000373 J**	0.0000451 U	**0.0000395 J**
PCB-105	E1668C	**0.185 J**	**0.115 J**	**0.056 J**	**0.0626 J**	**0.307 J**	**0.176 J**	**0.235 J**
PCB-106	E1668C	0.00106 U	0.000456 U	0.000133 U	0.000158 U	0.00209 U	0.000514 U	0.00188 U
PCB-107	E1668C	**0.0516 J**	**0.0277 J**	**0.0137 J**	**0.0167 J**	**0.0433 J**	**0.0517 J**	**0.0425 J**
PCB-108/124	E1668C	**0.0379 J**	**0.0169 J**	**0.0078**	**0.00969**	**0.0352 J**	**0.0365 J**	**0.0312 J**
PCB-110	E1668C	**1.24 J**	**0.475 J**	**0.204 J**	**0.199 J**	**1.1 J**	**1.01 J**	**0.903 J**
PCB-111	E1668C	0.00103 U	**0.00164**	**0.00071**	**0.000827**	0.00215 U	**0.0015**	0.00193 U
PCB-112	E1668C	0.000928 U	0.000418 U	0.000116 U	0.000138 U	0.00181 U	0.000446 U	0.00163 U
PCB-114	E1668C	**0.0069**	**0.00483**	**0.00298**	**0.00287**	**0.00656 J**	**0.00828 J**	**0.00648**
PCB-115	E1668C	0.000889 U	0.000417 U	0.000126 U	0.00015 U	0.0018 U	0.000443 U	0.00162 U
PCB-117	E1668C	**0.0201 J**	**0.0108 J**	**0.00656**	**0.0071 J**	**0.0166 J**	**0.017 J**	**0.0126 J**
PCB-118	E1668C	**0.558 J**	**0.311 J**	**0.155 J**	**0.178 J**	**0.445 J**	**0.669 J**	**0.61 J**
PCB-120	E1668C	**0.00648**	**0.00515**	**0.00207**	**0.00254**	**0.00452**	**0.00475**	**0.00395**
PCB-121	E1668C	0.000985 U	**0.00142**	**0.000718**	**0.000697**	0.00184 U	0.000452 U	0.00165 U

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP22-I-3	VP27-E/F-6	VP27-F-4	VP27-F-5	VP9-FL000954	VP9-V/W-14	VP9-V-15/16
	Sample ID	VP22-I-3-PSBL-SED	VP27-E/F-6-PSBL-SED	VP27-F-4-PSBL-SED	VP27-F-5-PSBL-SED	VP9-FL000954-PSBL-SED	VP9-V/W-14-PSBL-SED	VP9-V-15/16-PSBL-SED
	Sample Date	5/31/2024	5/30/2024	5/30/2024	5/30/2024	5/29/2024	5/29/2024	5/29/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	N
	Matrix	SO	SO	SO	SO	SO	SO	SO
PCB-122	E1668C	**0.00918 J**	**0.00452**	**0.00218**	**0.00232**	**0.00772 J**	**0.00813 J**	**0.00854 J**
PCB-123	E1668C	**0.0166 J**	**0.0079 J**	**0.00381**	**0.00438**	**0.0179 J**	**0.019 J**	**0.0154 J**
PCB-126	E1668C	**0.00307**	**0.00162**	**0.0007**	**0.000976**	**0.00213**	**0.00374**	**0.00226 J**
PCB-127	E1668C	0.000987 U	0.000513 U	**0.000341**	**0.00041**	0.00262 U	**0.00116**	0.00178 U
PCB-128/166	E1668C	**0.271 J**	**0.219 J**	**0.116 J**	**0.121 J**	**0.272 J**	**0.366 J**	**0.242 J**
PCB-129/138/163	E1668C	**0.933 J**	**0.649 J**	**0.522 J**	**0.525 J**	**1.05 J**	**1.05 J**	**0.861 J**
PCB-130	E1668C	**0.048 J**	**0.0277 J**	**0.0212 J**	**0.0219 J**	**0.037 J**	**0.0375 J**	**0.0322 J**
PCB-131	E1668C	**0.00457**	**0.00217**	**0.00132**	**0.000986**	**0.00379**	**0.00297**	**0.00308**
PCB-132	E1668C	**0.21 J**	**0.126 J**	**0.094 J**	**0.0791 J**	**0.197 J**	**0.172 J**	**0.15 J**
PCB-133	E1668C	**0.0125 J**	**0.0118 J**	**0.01 J**	**0.00935 J**	**0.0101 J**	**0.0111 J**	**0.00918 J**
PCB-134	E1668C	**0.0356 J**	**0.02 J**	**0.0134 J**	**0.0115 J**	**0.0257 J**	**0.0203 J**	**0.0209 J**
PCB-135/151	E1668C	**0.304 J**	**0.255 J**	**0.199 J**	**0.174 J**	**0.282 J**	**0.266 J**	**0.227 J**
PCB-136	E1668C	**0.251 J**	**0.173 J**	**0.0641 J**	**0.0527 J**	**0.234 J**	**0.165 J**	**0.197 J**
PCB-137	E1668C	**0.0215 J**	**0.0109 J**	**0.00656**	**0.00603 J**	**0.0127 J**	**0.017 J**	**0.0163 J**
PCB-139/140	E1668C	**0.00886**	**0.00596**	**0.00461**	**0.00363**	**0.00622**	**0.00665**	**0.00552**
PCB-141	E1668C	**0.179 J**	**0.125 J**	**0.0958 J**	**0.0831 J**	**0.174 J**	**0.161 J**	**0.135 J**
PCB-142	E1668C	0.0000178 U	0.0000134 U	0.0000335 U	0.0000145 U	0.0000218 U	0.0000281 U	0.000018 U
PCB-143	E1668C	0.000015 U	0.0000124 U	0.0000321 U	0.0000139 U	0.0000201 U	0.0000258 U	0.0000166 U
PCB-144	E1668C	**0.0327 J**	**0.0193 J**	**0.0131 J**	**0.0111 J**	**0.0331 J**	**0.0264 J**	**0.0253 J**
PCB-145	E1668C	0.0000377 UJ	**0.000216**	0.0000301 U	**0.0000369**	0.0000469 U	0.0000523 U	0.0000273 U
PCB-146	E1668C	**0.126 J**	**0.0917 J**	**0.0671 J**	**0.07 J**	**0.106 J**	**0.103 J**	**0.0873 J**
PCB-147/149	E1668C	**0.66 J**	**0.524 J**	**0.383 J**	**0.339 J**	**0.697 J**	**0.67 J**	**0.556 J**
PCB-148	E1668C	**0.00154**	**0.00285**	**0.00251**	**0.00199**	**0.00113**	**0.00148**	**0.00118**
PCB-150	E1668C	**0.00363**	**0.00669 J**	**0.00261**	**0.00231**	**0.00239**	**0.00276**	**0.00264**
PCB-152	E1668C	**0.00127**	**0.00239**	**0.000932**	**0.000761**	**0.000882**	**0.000982**	**0.000941**
PCB-153/168	E1668C	**0.792 J**	**0.594 J**	**0.487 J**	**0.476 J**	**0.963 J**	**0.926 J**	**0.759 J**
PCB-154	E1668C	**0.0109 J**	**0.0139 J**	**0.0114 J**	**0.00737 J**	**0.00715 J**	**0.00817 J**	**0.00663 J**
PCB-155	E1668C	**0.000123**	**0.000327**	**0.000142**	**0.0000943**	0.0000542 U	**0.000107**	**0.0000819**
PCB-156/157	E1668C	**0.196 J**	**0.12 J**	**0.0591 J**	**0.0709 J**	**0.192 J**	**0.193 J**	**0.159 J**
PCB-158	E1668C	**0.0757 J**	**0.0395 J**	**0.0316 J**	**0.0279 J**	**0.0651 J**	**0.0609 J**	**0.0529 J**
PCB-159	E1668C	**0.0313 J**	**0.0376 J**	**0.0193 J**	**0.0155 J**	**0.0398 J**	**0.0448 J**	**0.0289 J**
PCB-160	E1668C	0.0000131 U	0.0000096 U	0.0000246 U	0.0000107 U	0.0000163 U	0.000021 U	0.0000135 U
PCB-161	E1668C	0.0000111 UJ	0.00000888 U	0.0000222 U	0.00000962 U	0.0000147 U	0.0000189 U	0.0000121 U
PCB-162	E1668C	**0.00828 J**	**0.00555**	**0.00276**	**0.00303**	**0.00558**	**0.00834 J**	**0.00508**
PCB-164	E1668C	**0.0599 J**	**0.0387 J**	**0.0336 J**	**0.0319 J**	**0.0517 J**	**0.0514 J**	**0.0419 J**
PCB-165	E1668C	**0.0011 J**	**0.00138**	**0.00146**	**0.00108**	**0.000528**	**0.000848**	**0.000729**
PCB-167	E1668C	**0.0894 J**	**0.0669 J**	**0.0329 J**	**0.037 J**	**0.0869 J**	**0.111 J**	**0.0754 J**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP22-I-3	VP27-E/F-6	VP27-F-4	VP27-F-5	VP9-FL000954	VP9-V/W-14	VP9-V-15/16
	Sample ID	VP22-I-3-PSBL-SED	VP27-E/F-6-PSBL-SED	VP27-F-4-PSBL-SED	VP27-F-5-PSBL-SED	VP9-FL000954-PSBL-SED	VP9-V/W-14-PSBL-SED	VP9-V-15/16-PSBL-SED
	Sample Date	5/31/2024	5/30/2024	5/30/2024	5/30/2024	5/29/2024	5/29/2024	5/29/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	N
	Matrix	SO	SO	SO	SO	SO	SO	SO
PCB-169	E1668C	0.000145 U	0.000156 U	**0.00272**	0.000119 U	0.000351 U	0.000345 U	0.000244 U
PCB-170	E1668C	**0.584 J**	**0.707 J**	**0.38 J**	**0.391 J**	**0.764 J**	**0.744 J**	**0.842 J**
PCB-171/173	E1668C	**0.116 J**	**0.0815 J**	**0.072 J**	**0.0507 J**	**0.0963 J**	**0.0961 J**	**0.118 J**
PCB-172	E1668C	**0.0702 J**	**0.0555 J**	**0.0511 J**	**0.0342 J**	**0.054 J**	**0.0593 J**	**0.0686 J**
PCB-174	E1668C	**0.408 J**	**0.374 J**	**0.342 J**	**0.224 J**	**0.366 J**	**0.404 J**	**0.465 J**
PCB-175	E1668C	**0.0136 J**	**0.0097 J**	**0.00732 J**	**0.00499**	**0.0111 J**	**0.0102 J**	**0.0134 J**
PCB-176	E1668C	**0.129 J**	**0.115 J**	**0.0346 J**	**0.0373 J**	**0.114 J**	**0.11 J**	**0.121 J**
PCB-177	E1668C	**0.24 J**	**0.216 J**	**0.196 J**	**0.148 J**	**0.203 J**	**0.227 J**	**0.264 J**
PCB-178	E1668C	**0.251 J**	**0.299 J**	**0.122 J**	**0.126 J**	**0.215 J**	**0.251 J**	**0.257 J**
PCB-179	E1668C	**0.443 J**	**0.507 J**	**0.194 J**	**0.2 J**	**0.392 J**	**0.448 J**	**0.441 J**
PCB-180/193	E1668C	**0.88 J**	**0.707 J**	**0.628 J**	**0.417 J**	**0.83 J**	**0.867 J**	**0.991 J**
PCB-181	E1668C	**0.00214**	**0.00167**	**0.00144**	**0.00109**	**0.00165**	**0.00187**	**0.00228**
PCB-182	E1668C	**0.00213**	**0.00249**	**0.00218**	**0.00155**	0.000108 U	**0.00191**	**0.00251**
PCB-183	E1668C	**0.208 J**	**0.155 J**	**0.12 J**	**0.0795 J**	**0.182 J**	**0.171 J**	**0.209 J**
PCB-184	E1668C	**0.000487**	**0.000545**	**0.00018**	0.0000252 U	0.0000336 U	**0.000454**	0.0000563 U
PCB-185	E1668C	**0.0467 J**	**0.0395 J**	**0.0446 J**	**0.0312 J**	**0.0343 J**	**0.0392 J**	**0.047 J**
PCB-186	E1668C	**0.000139 J**	0.0000276 U	0.0000264 U	0.0000231 U	0.0000301 U	0.0000587 U	0.0000504 U
PCB-187	E1668C	**0.462 J**	**0.421 J**	**0.381 J**	**0.269 J**	**0.395 J**	**0.445 J**	**0.508 J**
PCB-188	E1668C	**0.00138**	**0.00339**	**0.00163**	**0.00144**	**0.000978**	**0.00153**	**0.00156**
PCB-189	E1668C	**0.0388 J**	**0.0301 J**	**0.0145 J**	**0.016 J**	**0.0392 J**	**0.042 J**	**0.03 J**
PCB-190	E1668C	**0.126 J**	**0.184 J**	**0.107 J**	**0.119 J**	**0.16 J**	**0.168 J**	**0.189 J**
PCB-191	E1668C	**0.0157 J**	**0.0106 J**	**0.00863 J**	**0.00556**	**0.0128 J**	**0.0121 J**	**0.0153 J**
PCB-192	E1668C	0.0000976 U	0.0000708 U	0.0000757 U	0.0000413 U	0.000104 U	0.000102 U	0.000132 U
PCB-194	E1668C	**0.398 J**	**0.408 J**	**0.235 J**	**0.238 J**	**0.463 J**	**0.52 J**	**0.541 J**
PCB-195	E1668C	**0.189 J**	**0.202 J**	**0.121 J**	**0.132 J**	**0.218 J**	**0.251 J**	**0.258 J**
PCB-196	E1668C	**0.239 J**	**0.22 J**	**0.0675 J**	**0.097 J**	**0.238 J**	**0.18 J**	**0.151 J**
PCB-197	E1668C	**0.0156 J**	**0.0149 J**	**0.00421**	**0.00631 J**	**0.0154 J**	**0.0109 J**	**0.0101 J**
PCB-198/199	E1668C	**0.51 J**	**0.584 J**	**0.198 J**	**0.289 J**	**0.542 J**	**0.455 J**	**0.371 J**
PCB-200	E1668C	**0.0696 J**	**0.0872 J**	**0.0291 J**	**0.0442 J**	**0.0736 J**	**0.0633 J**	**0.0503 J**
PCB-201	E1668C	**0.0544 J**	**0.0555 J**	**0.0155 J**	**0.0235 J**	**0.0555 J**	**0.0408 J**	**0.0349 J**
PCB-202	E1668C	**0.0865 J**	**0.107 J**	**0.0375 J**	**0.059 J**	**0.0889 J**	**0.0771 J**	**0.0626 J**
PCB-203	E1668C	**0.308 J**	**0.348 J**	**0.123 J**	**0.18 J**	**0.341 J**	**0.28 J**	**0.229 J**
PCB-204	E1668C	**0.000122**	0.0000642 U	**0.0000333**	**0.0000633**	0.000082 U	**0.000103**	0.0000332 U
PCB-205	E1668C	**0.0244 J**	**0.0276 J**	**0.0169 J**	**0.0179 J**	**0.029 J**	**0.0353 J**	**0.0351 J**
PCB-206	E1668C	**0.167 J**	**0.123 J**	**0.0797 J**	**0.0848 J**	**0.231 J**	**0.182 J**	**0.184 J**
PCB-207	E1668C	**0.0172 J**	**0.014 J**	**0.00675**	**0.00747 J**	**0.0201 J**	**0.0199 J**	**0.0152 J**
PCB-208	E1668C	**0.0348 J**	**0.0247 J**	**0.0129 J**	**0.0154 J**	**0.0482 J**	**0.0427 J**	**0.0337 J**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP22-I-3	VP27-E/F-6	VP27-F-4	VP27-F-5	VP9-FL000954	VP9-V/W-14	VP9-V-15/16
	Sample ID	VP22-I-3-PSBL-SED	VP27-E/F-6-PSBL-SED	VP27-F-4-PSBL-SED	VP27-F-5-PSBL-SED	VP9-FL000954-PSBL-SED	VP9-V/W-14-PSBL-SED	VP9-V-15/16-PSBL-SED
	Sample Date	5/31/2024	5/30/2024	5/30/2024	5/30/2024	5/29/2024	5/29/2024	5/29/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	N
	Matrix	SO	SO	SO	SO	SO	SO	SO
PCB-209	E1668C	**0.0209 J**	**0.00844 J**	**0.0049**	**0.00555**	**0.0331 J**	**0.019 J**	**0.0215 J**
Total PCB Congener (U = 0 max limit)		**15 J**	**12 J**	**7.1 J**	**6.7 J**	**16 J**	**15 J**	**15 J**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

		Location ID	VP9-W/X-13/14	VP9-W/X-16	VP9-W-15	VP9-W-17	VP9-X/Y-16	VP9-X-13	VP9-X-14
		Sample ID	VP9-W/X-13/14-PSBL-SED	VP9-W/X-16-PSBL-SED	VP9-W-15-PSBL-SED	VP9-W-17-PSBL-SED	VP9-X/Y-16-PSBL-SED	VP9-X-13-PSBL-SED	VP9-X-14-PSBL-SED
		Sample Date	5/29/2024	5/29/2024	5/29/2024	5/29/2024	5/29/2024	5/29/2024	5/29/2024
		Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
		Sample Type	N	N	N	N	N	N	N
		Matrix	SO	SO	SO	SO	SO	SO	SO
Conventional Parameters (pct)									
Total organic carbon	LloydKahn		**4.83**	**6.98**	**6.94**	**6.54**	**6.12**	**5.74**	**5.43**
Total solids	SM2540G		**64.0**	**50.1**	**50.3**	**57.0**	**61.0**	**59.0**	**59.1**
PCB Aroclors (mg/kg)									
Aroclor 1016	SW8082A		0.029 U	0.038 U	0.039 U	0.032 U	0.031 U	0.033 U	0.033 U
Aroclor 1221	SW8082A		0.029 U	0.038 U	0.039 U	0.032 U	0.031 U	0.033 U	0.033 U
Aroclor 1232	SW8082A		0.029 U	0.038 U	0.039 U	0.032 U	0.031 U	0.033 U	0.033 U
Aroclor 1242	SW8082A		0.029 U	0.038 U	0.039 U	0.032 U	0.031 U	0.033 U	0.033 U
Aroclor 1248	SW8082A		0.029 U	0.038 U	0.039 U	0.032 U	0.031 U	0.033 U	0.033 U
Aroclor 1254	SW8082A		0.029 U	0.038 U	0.039 U	0.032 U	0.031 U	0.033 U	0.033 U
Aroclor 1260	SW8082A		**4.36 J**	**5.21**	**2.8**	**4.62 J**	**11.3**	**4.44**	**5.68 J**
Total PCB Aroclors (U = 0 max limit)			**4.36 J**	**5.21**	**2.8**	**4.62 J**	**11.3**	**4.44**	**5.68 J**
PCB Congeners (mg/kg)									
PCB-001	E1668C		**0.000136**	**0.000171 J**	**0.00021**	--	**0.00019**	**0.000204**	**0.000346**
PCB-002	E1668C		**0.0000423**	**0.0000247**	**0.0000352 J**	--	**0.000031 J**	**0.0000399 J**	**0.0000354 J**
PCB-003	E1668C		**0.000114**	**0.0000996**	**0.000172**	--	**0.000145**	**0.000149**	**0.000124 J**
PCB-004	E1668C		**0.000852**	**0.00231**	**0.00241**	--	**0.00205**	**0.00201**	**0.00197**
PCB-005	E1668C		**0.0000203**	**0.000032**	**0.0000475**	--	0.0000517 U	**0.000034**	**0.0000391**
PCB-006	E1668C		**0.000509**	**0.000954**	**0.00148**	--	**0.00102**	**0.000721**	**0.00102**
PCB-007	E1668C		**0.0000481**	**0.0000565**	**0.0000665**	--	**0.0000817**	**0.0000678**	**0.0000847**
PCB-008	E1668C		**0.001**	**0.00182**	**0.00336**	--	**0.00196**	**0.00146**	**0.00191**
PCB-009	E1668C		**0.0000732**	**0.00011**	**0.000166 J**	--	**0.000122**	**0.000111**	**0.000121**
PCB-010	E1668C		**0.0000369**	**0.0000679**	**0.0000894**	--	**0.0000896**	**0.000072**	**0.0000625**
PCB-011	E1668C		**0.0000625**	**0.0000823**	**0.000132**	--	**0.000139**	**0.0000771**	**0.0000885**
PCB-012/013	E1668C		**0.000197**	**0.000346**	**0.000508**	--	**0.000437**	**0.000393**	**0.000352**
PCB-014	E1668C		0.0000169 U	0.0000173 U	0.000025 U	--	0.0000501 U	0.0000231 U	0.0000299 U
PCB-015	E1668C		**0.00129**	**0.00239**	**0.00402**	--	**0.00324**	**0.00169**	**0.00283**
PCB-016	E1668C		0.0000237 U	**0.00147**	**0.00263**	--	0.0000301 U	**0.000841**	**0.00109**
PCB-017	E1668C		**0.00137**	**0.00237**	**0.00325**	--	**0.00195**	**0.00147**	**0.00199**
PCB-018/030	E1668C		**0.002**	**0.00313**	**0.00525**	--	**0.00269**	**0.00186**	**0.00242**
PCB-019	E1668C		**0.000523**	**0.000984**	**0.00111**	--	**0.00093**	**0.000788**	**0.000922 J**
PCB-020/028	E1668C		**0.00329**	**0.0063**	**0.0111**	--	**0.00782**	**0.00391**	**0.00507**
PCB-021/033	E1668C		**0.000931**	**0.00175**	**0.00321**	--	**0.00192**	**0.00112**	**0.00126**
PCB-022	E1668C		**0.000729**	**0.00145**	**0.0027**	--	**0.00157**	**0.000922**	**0.00102**
PCB-023	E1668C		0.0000333 U	0.0000355 U	0.0000602 U	--	0.0000611 U	0.0000307 U	0.0000424 U
PCB-024	E1668C		**0.00067**	**0.0000657**	**0.0000988**	--	**0.000916**	**0.0000389**	**0.0000389 J**
PCB-025	E1668C		**0.00106**	**0.00196**	**0.00272**	--	**0.00252**	**0.00148**	**0.00212**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP9-W/X-13/14	VP9-W/X-16	VP9-W-15	VP9-W-17	VP9-X/Y-16	VP9-X-13	VP9-X-14
	Sample ID	VP9-W/X-13/14-PSBL-SED	VP9-W/X-16-PSBL-SED	VP9-W-15-PSBL-SED	VP9-W-17-PSBL-SED	VP9-X/Y-16-PSBL-SED	VP9-X-13-PSBL-SED	VP9-X-14-PSBL-SED
	Sample Date	5/29/2024	5/29/2024	5/29/2024	5/29/2024	5/29/2024	5/29/2024	5/29/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	N
	Matrix	SO	SO	SO	SO	SO	SO	SO
PCB-026/029	E1668C	**0.00342**	**0.00563**	**0.00774**	--	**0.00816**	**0.00428**	**0.00633**
PCB-027	E1668C	**0.000355**	**0.00078**	**0.000825**	--	**0.000658**	**0.000579**	**0.000807**
PCB-031	E1668C	**0.00414**	**0.00557**	**0.00943 J**	--	**0.00823 J**	**0.00431**	**0.00504**
PCB-032	E1668C	**0.000831**	**0.00142**	**0.00218**	--	**0.00119**	**0.000868**	**0.00123**
PCB-034	E1668C	0.0000356 U	**0.0000261**	0.0000643 U	--	**0.0000733 J**	0.0000328 U	0.0000453 U
PCB-035	E1668C	**0.000121**	0.0000381 U	**0.000192**	--	**0.000144 J**	**0.000154**	**0.000107**
PCB-036	E1668C	0.0000302 U	0.0000322 U	0.0000546 U	--	0.0000554 U	0.0000278 U	0.0000385 U
PCB-037	E1668C	**0.00167**	**0.00271**	**0.00485**	--	**0.00403**	**0.00176**	**0.00212**
PCB-038	E1668C	0.0000332 U	0.0000354 U	0.000060 U	--	**0.000083 J**	0.0000306 U	0.0000423 U
PCB-039	E1668C	**0.0000597**	0.0000359 U	0.0000609 U	--	**0.000144 J**	0.000031 U	0.0000429 U
PCB-040/071	E1668C	**0.00307**	**0.00492**	**0.00504**	--	**0.00881**	**0.00427**	**0.00415**
PCB-041	E1668C	**0.000177**	**0.000319**	**0.000391**	--	**0.000339**	**0.000282**	**0.000289**
PCB-042	E1668C	**0.00257**	**0.00465**	**0.00483**	--	**0.00821 J**	**0.00368**	**0.00408**
PCB-043	E1668C	**0.000606**	**0.000586**	**0.000636**	--	**0.00155**	**0.000539**	**0.000613**
PCB-044/047/065	E1668C	**0.0195 J**	**0.0349 J**	**0.0344 J**	--	**0.0693 J**	**0.0297 J**	**0.0304 J**
PCB-045	E1668C	**0.000435**	**0.000958**	**0.00095**	--	**0.00102**	**0.000779**	**0.000619**
PCB-046	E1668C	**0.000238**	**0.00044 J**	**0.000463**	--	**0.000352**	**0.000431**	**0.000408**
PCB-048	E1668C	**0.000956**	**0.00102**	**0.0012**	--	**0.00138**	**0.00109**	**0.00117**
PCB-049/069	E1668C	**0.0691 J**	**0.0762 J**	**0.0827 J**	--	**0.156 J**	**0.0738 J**	**0.0796 J**
PCB-050/053	E1668C	**0.00135**	**0.00335**	**0.00246**	--	**0.00389**	**0.0027**	**0.00304**
PCB-051	E1668C	**0.000507**	**0.00157**	**0.00105**	--	**0.000948**	**0.00138**	**0.00152**
PCB-052	E1668C	**0.166 J**	**0.161 J**	**0.172 J**	--	**0.534 J**	**0.142 J**	**0.157 J**
PCB-054	E1668C	**0.0000951**	**0.000288 J**	**0.000161 J**	--	**0.000248**	**0.000234**	**0.000364 J**
PCB-055	E1668C	0.00139 U	0.000765 U	0.00162 U	--	0.00243 U	0.00115 U	0.00109 U
PCB-056	E1668C	**0.00742 J**	**0.00764**	**0.00807**	--	**0.0116 J**	**0.00934 J**	**0.0084 J**
PCB-057	E1668C	0.00149 U	0.000818 U	0.00173 U	--	0.0026 U	0.00123 U	0.00116 U
PCB-058	E1668C	0.00134 U	0.000735 U	0.00156 U	--	0.00233 U	0.0011 U	0.00104 U
PCB-059/062/075	E1668C	**0.00175**	**0.00311**	**0.00308**	--	**0.00407**	**0.0025**	**0.00312**
PCB-060	E1668C	**0.00294**	**0.00214 J**	**0.00279**	--	**0.00287**	**0.00384**	**0.0024**
PCB-061/070/074/076	E1668C	**0.122 J**	**0.0916 J**	**0.104 J**	--	**0.212 J**	**0.133 J**	**0.0863 J**
PCB-063	E1668C	0.00162 U	0.000887 U	0.00188 U	--	0.00282 U	0.00133 U	0.00126 U
PCB-064	E1668C	**0.023 J**	**0.0199 J**	**0.0228 J**	--	**0.0352 J**	**0.0267 J**	**0.0176 J**
PCB-066	E1668C	**0.0378 J**	**0.0522 J**	**0.0551 J**	--	**0.096 J**	**0.0556 J**	**0.0458 J**
PCB-067	E1668C	0.00131 U	0.000721 U	0.00153 U	--	0.00229 U	0.00108 U	0.00103 U
PCB-068	E1668C	**0.0021**	**0.00276**	**0.00258**	--	**0.00315**	**0.00331**	**0.00235**
PCB-072	E1668C	**0.00483**	**0.00468**	**0.00508**	--	**0.00672 J**	**0.00608**	**0.00405**
PCB-073	E1668C	**0.00129**	**0.00169**	**0.00138**	--	**0.00321**	**0.000997**	**0.00183**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP9-W/X-13/14	VP9-W/X-16	VP9-W-15	VP9-W-17	VP9-X/Y-16	VP9-X-13	VP9-X-14
	Sample ID	VP9-W/X-13/14-PSBL-SED	VP9-W/X-16-PSBL-SED	VP9-W-15-PSBL-SED	VP9-W-17-PSBL-SED	VP9-X/Y-16-PSBL-SED	VP9-X-13-PSBL-SED	VP9-X-14-PSBL-SED
	Sample Date	5/29/2024	5/29/2024	5/29/2024	5/29/2024	5/29/2024	5/29/2024	5/29/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	N
	Matrix	SO	SO	SO	SO	SO	SO	SO
PCB-077	E1668C	**0.00666 J**	**0.00405**	**0.00514**	--	**0.011 J**	**0.00564**	**0.00411**
PCB-078	E1668C	0.00163 U	0.000897 U	0.0019 U	--	0.00285 U	0.00135 U	0.00128 U
PCB-079	E1668C	**0.00443**	**0.00304**	**0.0041**	--	**0.00875 J**	**0.00404**	**0.0025**
PCB-080	E1668C	0.00144 U	0.000791 U	0.00168 U	--	0.00251 U	0.00119 U	0.00112 U
PCB-081	E1668C	0.00158 U	0.000869 U	0.00184 U	--	0.00276 U	0.00131 U	0.00124 U
PCB-082	E1668C	**0.0356 J**	**0.0491 J**	**0.0698 J**	--	**0.184 J**	**0.0268 J**	**0.0363 J**
PCB-083	E1668C	**0.0213 J**	**0.0394 J**	**0.0606 J**	--	**0.0944 J**	**0.0119 J**	**0.0259 J**
PCB-084	E1668C	**0.0362 J**	**0.0893 J**	**0.114 J**	--	**0.395 J**	**0.0357 J**	**0.0601 J**
PCB-085/116	E1668C	**0.245 J**	**0.189 J**	**0.27 J**	--	**0.544 J**	**0.166 J**	**0.149 J**
PCB-086/087/097/109/119/125	E1668C	**0.645 J**	**0.595 J**	**0.952 J**	--	**2.08 J**	**0.406 J**	**0.474 J**
PCB-088	E1668C	0.00223 U	0.00315 U	0.00395 U	--	**0.425 J**	0.00165 U	0.00175 U
PCB-089	E1668C	0.00206 U	0.0029 U	0.00365 U	--	0.0083 U	0.00153 U	0.00161 U
PCB-090/101/113	E1668C	**2.01 J**	**1.71 J**	**2.66 J**	--	**5.6 J**	**1.22 J**	**1.5 J**
PCB-091	E1668C	**0.117 J**	**0.145 J**	**0.208 J**	--	0.00839 U	**0.0858 J**	**0.121 J**
PCB-092	E1668C	**0.365 J**	**0.345 J**	**0.55 J**	--	**0.989 J**	**0.23 J**	**0.297 J**
PCB-093/100	E1668C	**0.00447**	**0.0146**	**0.0158**	--	**0.0217 J**	**0.00529**	**0.0177 J**
PCB-094	E1668C	0.00232 U	0.00328 U	0.00412 U	--	**0.00812 J**	0.00172 U	**0.0041**
PCB-095	E1668C	**0.734 J**	**0.978 J**	**1.5 J**	--	**3.53 J**	**0.482 J**	**0.852 J**
PCB-096	E1668C	**0.000506**	**0.00198**	**0.0014**	--	**0.00378**	**0.000808**	**0.00168**
PCB-098	E1668C	0.00182 U	0.00257 U	0.00322 U	--	0.00734 U	0.00135 U	0.00142 U
PCB-099	E1668C	**0.597 J**	**0.503 J**	**0.818 J**	--	**1.49 J**	**0.393 J**	**0.416 J**
PCB-102	E1668C	**0.00632 J**	**0.0106 J**	**0.0147 J**	--	**0.0377 J**	**0.00466**	**0.01 J**
PCB-103	E1668C	**0.0153 J**	**0.0235 J**	**0.0315 J**	--	**0.0407 J**	**0.0125 J**	**0.0225 J**
PCB-104	E1668C	0.0000379 U	**0.000323 J**	**0.000116 J**	--	**0.000314**	**0.000126**	**0.000542**
PCB-105	E1668C	**0.351 J**	**0.269 J**	**0.382 J**	--	**0.485 J**	**0.246 J**	**0.323 J**
PCB-106	E1668C	0.00157 U	0.00222 U	0.00279 U	--	0.00636 U	0.00117 U	0.00123 U
PCB-107	E1668C	**0.0819 J**	**0.0601 J**	**0.0931 J**	--	**0.168 J**	**0.052 J**	**0.0548 J**
PCB-108/124	E1668C	**0.0607 J**	**0.0407 J**	**0.0658 J**	--	**0.126 J**	**0.0367 J**	**0.0346 J**
PCB-110	E1668C	**1.96 J**	**1.53 J**	**2.48 J**	--	**4.78 J**	**1.26 J**	**1.25 J**
PCB-111	E1668C	0.00162 U	0.00228 U	0.00287 U	--	0.00652 U	0.0012 U	0.00127 U
PCB-112	E1668C	**0.00206**	0.00193 U	0.00242 U	--	**0.00498**	**0.00183**	0.00107 U
PCB-114	E1668C	**0.0184 J**	**0.00901 J**	**0.0117 J**	--	**0.0233 J**	**0.00982 J**	**0.00983 J**
PCB-115	E1668C	0.00136 U	0.00192 U	0.00241 U	--	0.00548 U	0.00101 U	0.00106 U
PCB-117	E1668C	**0.0312 J**	**0.0204 J**	**0.0445 J**	--	**0.0735 J**	**0.0171 J**	**0.0207 J**
PCB-118	E1668C	**1 J**	**0.763 J**	**1.15 J**	--	**1.54 J**	**0.899 J**	**0.899 J**
PCB-120	E1668C	**0.00651 J**	**0.00657**	**0.0101 J**	--	**0.0115 J**	**0.00457**	**0.00568**
PCB-121	E1668C	0.00139 U	0.00196 U	0.00246 U	--	0.00559 U	0.00103 U	0.00109 U

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP9-W/X-13/14	VP9-W/X-16	VP9-W-15	VP9-W-17	VP9-X/Y-16	VP9-X-13	VP9-X-14
	Sample ID	VP9-W/X-13/14-PSBL-SED	VP9-W/X-16-PSBL-SED	VP9-W-15-PSBL-SED	VP9-W-17-PSBL-SED	VP9-X/Y-16-PSBL-SED	VP9-X-13-PSBL-SED	VP9-X-14-PSBL-SED
	Sample Date	5/29/2024	5/29/2024	5/29/2024	5/29/2024	5/29/2024	5/29/2024	5/29/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	N
	Matrix	SO	SO	SO	SO	SO	SO	SO
PCB-122	E1668C	**0.0209 J**	**0.0105 J**	**0.015 J**	--	**0.033 J**	**0.011 J**	**0.00916 J**
PCB-123	E1668C	**0.0293 J**	**0.0195 J**	**0.0298 J**	--	**0.0565 J**	**0.0176 J**	**0.0193 J**
PCB-126	E1668C	**0.00529**	**0.00158**	**0.00507**	--	**0.00387 J**	**0.00304**	**0.00202**
PCB-127	E1668C	0.000917 U	0.00274 U	0.0035 U	--	0.00199 U	0.00121 U	0.00126 U
PCB-128/166	E1668C	**0.516 J**	**0.432 J**	**0.555 J**	--	**0.653 J**	**0.475 J**	**0.294 J**
PCB-129/138/163	E1668C	**1.02 J**	**1.08 J**	**1.47 J**	--	**1.1 J**	**0.949 J**	**1.13 J**
PCB-130	E1668C	**0.038 J**	**0.0389 J**	**0.0542 J**	--	**0.0396 J**	**0.0349 J**	**0.0406 J**
PCB-131	E1668C	**0.0039**	**0.00501**	**0.00644**	--	**0.00574**	**0.0038**	**0.00508**
PCB-132	E1668C	**0.196 J**	**0.24 J**	**0.315 J**	--	**0.256 J**	**0.189 J**	**0.237 J**
PCB-133	E1668C	**0.00988 J**	**0.0127 J**	**0.0155 J**	--	**0.01 J**	**0.00979 J**	**0.0134 J**
PCB-134	E1668C	**0.0255 J**	**0.0354 J**	**0.0434 J**	--	**0.0366 J**	**0.0247 J**	**0.0371 J**
PCB-135/151	E1668C	**0.26 J**	**0.369 J**	**0.457 J**	--	**0.333 J**	**0.268 J**	**0.4 J**
PCB-136	E1668C	**0.366 J**	**0.394 J**	**0.753 J**	--	**1.13 J**	**0.426 J**	**0.44 J**
PCB-137	E1668C	**0.0193 J**	**0.0151 J**	**0.0271 J**	--	**0.0178 J**	**0.0185 J**	**0.0171 J**
PCB-139/140	E1668C	**0.00698**	**0.00862**	**0.0106**	--	**0.00788**	**0.007**	**0.00831**
PCB-141	E1668C	**0.155 J**	**0.194 J**	**0.264 J**	--	**0.196 J**	**0.158 J**	**0.216 J**
PCB-142	E1668C	0.0000232 U	0.000036 U	0.0000256 U	--	0.0000206 U	0.0000234 U	0.0000534 U
PCB-143	E1668C	0.0000213 U	0.000033 U	0.0000235 U	--	0.0000189 U	0.0000215 U	0.0000491 U
PCB-144	E1668C	**0.0269 J**	**0.0384 J**	**0.048 J**	--	**0.0354 J**	**0.0283 J**	**0.0416 J**
PCB-145	E1668C	0.0000647 U	0.0000918 U	0.0000667 U	--	**0.00169**	**0.000766**	0.0000917 U
PCB-146	E1668C	**0.0963 J**	**0.121 J**	**0.155 J**	--	**0.104 J**	**0.0965 J**	**0.127 J**
PCB-147/149	E1668C	**0.677 J**	**0.862 J**	**1.09 J**	--	**0.831 J**	**0.663 J**	**0.902 J**
PCB-148	E1668C	**0.00108**	**0.0022**	**0.00218**	--	**0.00113**	**0.00141**	**0.00234**
PCB-150	E1668C	**0.00427**	**0.00599**	**0.00933 J**	--	**0.00921 J**	**0.00652**	**0.00685**
PCB-152	E1668C	**0.00181**	**0.00208**	**0.00319**	--	**0.00424**	**0.00284**	**0.00255**
PCB-153/168	E1668C	**0.867 J**	**1.02 J**	**1.32 J**	--	**0.926 J**	**0.829 J**	**1.08 J**
PCB-154	E1668C	**0.00715 J**	**0.0128 J**	**0.0136 J**	--	**0.00766 J**	**0.00818 J**	**0.0133 J**
PCB-155	E1668C	0.0000748 U	**0.000229 J**	**0.000284**	--	**0.000331 J**	**0.000198 J**	**0.000337 J**
PCB-156/157	E1668C	**0.311 J**	**0.209 J**	**0.307 J**	--	**0.469 J**	**0.233 J**	**0.173 J**
PCB-158	E1668C	**0.061 J**	**0.071 J**	**0.0937 J**	--	**0.0698 J**	**0.0609 J**	**0.074 J**
PCB-159	E1668C	**0.0577 J**	**0.0663 J**	**0.0764 J**	--	**0.0739 J**	**0.0556 J**	**0.0474 J**
PCB-160	E1668C	0.0000173 U	0.0000269 U	0.0000192 U	--	0.0000154 U	0.0000175 U	0.000040 U
PCB-161	E1668C	0.0000156 U	**0.000399**	0.0000172 U	--	**0.000241**	**0.00037**	0.0000359 U
PCB-162	E1668C	**0.0108 J**	**0.00799**	**0.0118 J**	--	**0.0124 J**	**0.00977 J**	**0.0049**
PCB-164	E1668C	**0.0477 J**	**0.0567 J**	**0.0688 J**	--	**0.0544 J**	**0.0454 J**	**0.0597 J**
PCB-165	E1668C	**0.000575**	**0.00103**	**0.000971**	--	**0.000514**	0.0000182 U	**0.00114**
PCB-167	E1668C	**0.156 J**	**0.121 J**	**0.154 J**	--	**0.18 J**	**0.132 J**	**0.0827 J**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP9-W/X-13/14	VP9-W/X-16	VP9-W-15	VP9-W-17	VP9-X/Y-16	VP9-X-13	VP9-X-14
	Sample ID	VP9-W/X-13/14-PSBL-SED	VP9-W/X-16-PSBL-SED	VP9-W-15-PSBL-SED	VP9-W-17-PSBL-SED	VP9-X/Y-16-PSBL-SED	VP9-X-13-PSBL-SED	VP9-X-14-PSBL-SED
	Sample Date	5/29/2024	5/29/2024	5/29/2024	5/29/2024	5/29/2024	5/29/2024	5/29/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	N
	Matrix	SO	SO	SO	SO	SO	SO	SO
PCB-169	E1668C	0.000659 U	0.000361 U	0.000617 U	--	0.00089 U	0.000301 U	0.000479 U
PCB-170	E1668C	**0.997 J**	**1.16 J**	**1.26 J**	--	**1.15 J**	**0.718 J**	**0.887 J**
PCB-171/173	E1668C	**0.109 J**	**0.11 J**	**0.125 J**	--	**0.105 J**	**0.101 J**	**0.124 J**
PCB-172	E1668C	**0.0635 J**	**0.066 J**	**0.0737 J**	--	**0.061 J**	**0.0585 J**	**0.0747 J**
PCB-174	E1668C	**0.448 J**	**0.478 J**	**0.533 J**	--	**0.462 J**	**0.417 J**	**0.541 J**
PCB-175	E1668C	**0.0115 J**	**0.0146 J**	**0.0159 J**	--	**0.0127 J**	**0.0121 J**	**0.0158 J**
PCB-176	E1668C	**0.183 J**	**0.212 J**	**0.22 J**	--	**0.28 J**	**0.133 J**	**0.16 J**
PCB-177	E1668C	**0.245 J**	**0.257 J**	**0.286 J**	--	**0.24 J**	**0.228 J**	**0.287 J**
PCB-178	E1668C	**0.373 J**	**0.392 J**	**0.427 J**	--	**0.515 J**	**0.264 J**	**0.31 J**
PCB-179	E1668C	**0.697 J**	**0.741 J**	**0.778 J**	--	**0.983 J**	**0.48 J**	**0.579 J**
PCB-180/193	E1668C	**0.941 J**	**0.985 J**	**1.14 J**	--	**0.973 J**	**0.894 J**	**1.12 J**
PCB-181	E1668C	**0.00214**	**0.0018**	**0.0021**	--	**0.00194**	**0.00193**	**0.002**
PCB-182	E1668C	**0.00231**	**0.00238**	**0.00242**	--	**0.00188**	**0.00211**	**0.00239**
PCB-183	E1668C	**0.193 J**	**0.223 J**	**0.244 J**	--	**0.203 J**	**0.194 J**	**0.241 J**
PCB-184	E1668C	**0.000681**	0.0000804 U	**0.00074**	--	0.0000545 U	**0.00044 J**	0.0000719 U
PCB-185	E1668C	**0.0338 J**	**0.046 J**	**0.0603 J**	--	**0.0407 J**	**0.0388 J**	**0.0549 J**
PCB-186	E1668C	0.0000471 U	0.000072 U	0.0000562 U	--	0.0000488 U	0.0000555 U	0.0000644 U
PCB-187	E1668C	**0.474 J**	**0.536 J**	**0.584 J**	--	**0.48 J**	**0.461 J**	**0.576 J**
PCB-188	E1668C	**0.00194 J**	**0.00251**	**0.00215**	--	**0.00216 J**	**0.00154**	**0.00207**
PCB-189	E1668C	**0.0498 J**	**0.0475 J**	**0.0698 J**	--	**0.082 J**	**0.0428 J**	**0.0393 J**
PCB-190	E1668C	**0.22 J**	**0.269 J**	**0.273 J**	--	**0.238 J**	**0.157 J**	**0.207 J**
PCB-191	E1668C	**0.0137 J**	**0.0151 J**	**0.0168 J**	--	**0.0136 J**	**0.013 J**	**0.019 J**
PCB-192	E1668C	0.000119 U	0.0000997 U	0.000115 U	--	0.000090 U	0.0000817 U	0.000171 U
PCB-194	E1668C	**0.63 J**	**0.556 J**	**1.44 J**	--	**1.14 J**	**0.534 J**	**0.602 J**
PCB-195	E1668C	**0.301 J**	**0.265 J**	**0.656 J**	--	**0.541 J**	**0.251 J**	**0.291 J**
PCB-196	E1668C	**0.353 J**	**0.446 J**	**0.594 J**	--	**0.42 J**	**0.318 J**	**0.29 J**
PCB-197	E1668C	**0.0216 J**	**0.0303 J**	**0.0415 J**	--	**0.0296 J**	**0.0204 J**	**0.0177 J**
PCB-198/199	E1668C	**0.876 J**	**1.01 J**	**1.32 J**	--	**0.958 J**	**0.743 J**	**0.667 J**
PCB-200	E1668C	**0.121 J**	**0.142 J**	**0.181 J**	--	**0.136 J**	**0.0988 J**	**0.099 J**
PCB-201	E1668C	**0.0817 J**	**0.113 J**	**0.14 J**	--	**0.102 J**	**0.0756 J**	**0.0723 J**
PCB-202	E1668C	**0.151 J**	**0.167 J**	**0.215 J**	--	**0.153 J**	**0.124 J**	**0.115 J**
PCB-203	E1668C	**0.549 J**	**0.612 J**	**0.789 J**	--	**0.58 J**	**0.452 J**	**0.407 J**
PCB-204	E1668C	**0.000252**	**0.000155**	0.000107 U	--	0.000133 U	**0.000141**	0.0000977 U
PCB-205	E1668C	**0.0411 J**	**0.0362 J**	**0.0914 J**	--	**0.0723 J**	**0.0335 J**	**0.0393 J**
PCB-206	E1668C	**0.261 J**	**0.243 J**	**0.52 J**	--	**0.389 J**	**0.246 J**	**0.199 J**
PCB-207	E1668C	**0.0302 J**	**0.0277 J**	**0.0311 J**	--	**0.0376 J**	**0.0279 J**	**0.0229 J**
PCB-208	E1668C	**0.0764 J**	**0.0454 J**	**0.0567 J**	--	**0.0628 J**	**0.062 J**	**0.0413 J**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

	Location ID	VP9-W/X-13/14	VP9-W/X-16	VP9-W-15	VP9-W-17	VP9-X/Y-16	VP9-X-13	VP9-X-14
	Sample ID	VP9-W/X-13/14-PSBL-SED	VP9-W/X-16-PSBL-SED	VP9-W-15-PSBL-SED	VP9-W-17-PSBL-SED	VP9-X/Y-16-PSBL-SED	VP9-X-13-PSBL-SED	VP9-X-14-PSBL-SED
	Sample Date	5/29/2024	5/29/2024	5/29/2024	5/29/2024	5/29/2024	5/29/2024	5/29/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N	N	N	N
	Matrix	SO	SO	SO	SO	SO	SO	SO
PCB-209	E1668C	**0.0346 J**	**0.0177 J**	**0.0404 J**	--	**0.0261 J**	**0.0337 J**	**0.0164 J**
Total PCB Congener (U = 0 max limit)		**22 J**	**23 J**	**32 J**	--	**41 J**	**18 J**	**21 J**

Attachment B-1
Baseline Sampling Results (Bulk Soils)

Notes:

Bold: Detected result

Calculated values have been rounded to laboratory-reported significant digits

J: Estimated value

R: Rejected

U: Compound analyzed for, but not detected above detection limit

UJ: Compound analyzed for, but not detected above estimated detection limit

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

Location ID		VP12-B/C-4	VP12-B-2/3	VP12-C-3	VP15-G/H-9
Sample ID		HOUS-IN-SITU-SPME-VP12-B/C-4-240730	HOUS-IN-SITU-SPME-VP12-B-2/3-240730	HOUS-IN-SITU-SPME-VP12-C-3-240730	HOUS-IN-SITU-SPME-VP15-G/H-9-240730
Sample Date		7/30/2024	7/30/2024	7/30/2024	7/30/2024
Depth		0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
Sample Type		N	N	N	N
Matrix		SPME	SPME	SPME	SPME
PCB Congeners (SPME) (ng/L)					
PCB-001	E1668C	0.012 UJ	0.011 UJ	0.0122 UJ	0.00768 UJ
PCB-002	E1668C	0.00459 UJ	0.00405 UJ	0.00444 UJ	0.00299 UJ
PCB-003	E1668C	0.00472 UJ	**0.00303 J**	0.00458 UJ	0.00308 UJ
PCB-004	E1668C	**0.0221 J**	**0.0657 J**	**0.131 J**	**0.0106 J**
PCB-005	E1668C	0.00713 UJ	0.00605 UJ	0.00428 UJ	0.00402 UJ
PCB-006	E1668C	0.00506 UJ	0.00421 UJ	**0.00818 J**	0.00278 UJ
PCB-007	E1668C	0.0057 UJ	0.00477 UJ	0.00339 UJ	0.0032 UJ
PCB-008	E1668C	**0.00866 J**	**0.00614 J**	**0.0107 J**	**0.00552 J**
PCB-009	E1668C	0.00519 UJ	0.00433 UJ	0.00308 UJ	0.00289 UJ
PCB-010	E1668C	0.00749 UJ	0.00477 UJ	**0.00812 J**	0.00318 UJ
PCB-011	E1668C	0.00716 UJ	0.00672 UJ	0.00598 UJ	0.00696 UJ
PCB-012/013	E1668C	0.00471 UJ	0.00382 UJ	0.00275 UJ	0.00252 UJ
PCB-014	E1668C	0.00399 UJ	0.00319 UJ	0.00231 UJ	0.00208 UJ
PCB-015	E1668C	**0.00336 J**	**0.00984 J**	**0.0145 J**	**0.00717 J**
PCB-016	E1668C	0.00485 UJ	0.00453 UJ	**0.00578 J**	0.00408 UJ
PCB-017	E1668C	**0.0123 J**	**0.0776 J**	**0.0868 J**	**0.0153 J**
PCB-018/030	E1668C	**0.00965 J**	**0.0519 J**	**0.0396 J**	**0.013 J**
PCB-019	E1668C	**0.0198 J**	**0.0998 J**	**0.123 J**	**0.0176 J**
PCB-020/028	E1668C	**0.00786 J**	**0.0682 J**	**0.0782 J**	**0.0337 J**
PCB-021/033	E1668C	0.00421 UJ	**0.0279 J**	**0.0316 J**	**0.00607 J**
PCB-022	E1668C	0.00324 UJ	0.00195 UJ	**0.00352 J**	**0.00271 J**
PCB-023	E1668C	0.00408 UJ	0.00247 UJ	0.0029 UJ	0.00266 UJ
PCB-024	E1668C	0.00233 UJ	0.00208 UJ	0.0020 UJ	0.00193 UJ
PCB-025	E1668C	0.00287 UJ	**0.0462 J**	**0.0368 J**	**0.0106 J**
PCB-026/029	E1668C	**0.00546 J**	**0.0496 J**	**0.0333 J**	**0.0151 J**
PCB-027	E1668C	**0.00604 J**	**0.078 J**	**0.0438 J**	**0.0174 J**
PCB-031	E1668C	**0.00667 J**	**0.0326 J**	**0.0365 J**	**0.0307 J**
PCB-032	E1668C	**0.00244 J**	**0.033 J**	**0.0685 J**	**0.0221 J**
PCB-034	E1668C	0.00358 UJ	0.00211 UJ	0.00246 UJ	0.00223 UJ
PCB-035	E1668C	0.00231 UJ	0.00129 UJ	0.00149 UJ	0.00132 UJ
PCB-036	E1668C	0.00198 UJ	0.00108 UJ	0.00124 UJ	0.00113 UJ
PCB-037	E1668C	0.00199 UJ	**0.00759 J**	**0.00559 J**	**0.00591 J**
PCB-038	E1668C	0.00232 UJ	0.00132 UJ	0.00154 UJ	0.00143 UJ
PCB-039	E1668C	0.00219 UJ	0.00119 UJ	0.00137 UJ	0.00122 UJ
PCB-040/071	E1668C	**0.00983 J**	**0.123 J**	**0.138 J**	**0.0538 J**
PCB-041	E1668C	0.00283 UJ	0.00164 UJ	0.00159 UJ	0.00123 UJ

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP12-B/C-4	VP12-B-2/3	VP12-C-3	VP15-G/H-9
	Sample ID	HOUS-IN-SITU-SPME-VP12-B/C-4-240730	HOUS-IN-SITU-SPME-VP12-B-2/3-240730	HOUS-IN-SITU-SPME-VP12-C-3-240730	HOUS-IN-SITU-SPME-VP15-G/H-9-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-042	E1668C	**0.00871 J**	**0.13 J**	**0.117 J**	**0.0455 J**
PCB-043	E1668C	0.00214 UJ	**0.00606 J**	0.00118 UJ	0.000885 UJ
PCB-044/047/065	E1668C	**0.26 J**	**3.425 J**	**2.75 J**	**0.717 J**
PCB-045	E1668C	**0.00248 J**	**0.033 J**	**0.0321 J**	**0.00871 J**
PCB-046	E1668C	0.00381 UJ	**0.0421 J**	**0.0508 J**	**0.011 J**
PCB-048	E1668C	0.00213 UJ	**0.00449 J**	**0.00427 J**	**0.00436 J**
PCB-049/069	E1668C	**0.282 J**	**2.336 J**	**1.303 J**	**0.978 J**
PCB-050/053	E1668C	**0.0461 J**	**1.375 J**	**0.98 J**	**0.349 J**
PCB-051	E1668C	**0.0292 J**	**0.606 J**	**0.634 J**	**0.112 J**
PCB-052	E1668C	**0.371 J**	**2.347 J**	**1.156 J**	**1.811 J**
PCB-054	E1668C	**0.00785 J**	**0.157 J**	**0.131 J**	**0.0271 J**
PCB-055	E1668C	0.00248 UJ	0.00364 UJ	0.00187 UJ	0.00214 UJ
PCB-056	E1668C	**0.0054 J**	**0.0208 J**	**0.0114 J**	**0.0156 J**
PCB-057	E1668C	0.0028 UJ	0.00407 UJ	0.00204 UJ	0.00238 UJ
PCB-058	E1668C	0.00235 UJ	0.00342 UJ	0.00171 UJ	0.00206 UJ
PCB-059/062/075	E1668C	**0.017 J**	**0.129 J**	**0.071 J**	**0.0413 J**
PCB-060	E1668C	0.00303 UJ	0.00443 UJ	0.00227 UJ	**0.00467 J**
PCB-061/070/074/076	E1668C	**0.102 J**	**0.372 J**	**0.197 J**	**0.294 J**
PCB-063	E1668C	0.00289 UJ	**0.015 J**	**0.00736 J**	**0.00606 J**
PCB-064	E1668C	**0.0417 J**	**0.124 J**	**0.0673 J**	**0.125 J**
PCB-066	E1668C	**0.0476 J**	**0.288 J**	**0.146 J**	**0.13 J**
PCB-067	E1668C	0.00237 UJ	**0.0136 J**	**0.00828 J**	**0.00334 J**
PCB-068	E1668C	**0.00969 J**	**0.0597 J**	**0.0318 J**	**0.0212 J**
PCB-072	E1668C	**0.0111 J**	**0.059 J**	**0.0301 J**	**0.0279 J**
PCB-073	E1668C	**0.011 J**	**0.0919 J**	**0.0518 J**	**0.0232 J**
PCB-077	E1668C	**0.00537 J**	**0.0208 J**	**0.00947 J**	**0.00639 J**
PCB-078	E1668C	0.00231 UJ	0.00336 UJ	0.00151 UJ	0.00195 UJ
PCB-079	E1668C	**0.00326 J**	**0.0172 J**	**0.00666 J**	**0.0106 J**
PCB-080	E1668C	0.00211 UJ	0.00311 UJ	0.00127 UJ	0.00184 UJ
PCB-081	E1668C	0.00217 UJ	0.00315 UJ	0.00141 UJ	0.00182 UJ
PCB-082	E1668C	**0.02 J**	**0.124 J**	**0.0551 J**	**0.0685 J**
PCB-083	E1668C	**0.0292 J**	**0.167 J**	**0.0724 J**	**0.0931 J**
PCB-084	E1668C	**0.0564 J**	**0.446 J**	**0.225 J**	**0.271 J**
PCB-085/116	E1668C	**0.113 J**	**0.456 J**	**0.183 J**	**0.38 J**
PCB-086/087/097/109/119/125	E1668C	**0.331 J**	**1.633 J**	**0.714 J**	**1.139 J**
PCB-088	E1668C	0.00468 UJ	0.0169 UJ	0.0103 UJ	0.0123 UJ
PCB-089	E1668C	0.00403 UJ	0.0146 UJ	0.00889 UJ	0.00924 UJ

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP12-B/C-4	VP12-B-2/3	VP12-C-3	VP15-G/H-9
	Sample ID	HOUS-IN-SITU-SPME-VP12-B/C-4-240730	HOUS-IN-SITU-SPME-VP12-B-2/3-240730	HOUS-IN-SITU-SPME-VP12-C-3-240730	HOUS-IN-SITU-SPME-VP15-G/H-9-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-090/101/113	E1668C	**1.243 J**	**4.837 J**	**1.949 J**	**3.929 J**
PCB-091	E1668C	**0.202 J**	**1.201 J**	**0.669 J**	**0.541 J**
PCB-092	E1668C	**0.299 J**	**1.395 J**	**0.608 J**	**0.959 J**
PCB-093/100	E1668C	**0.0868 J**	**0.686 J**	**0.373 J**	**0.158 J**
PCB-094	E1668C	**0.0159 J**	**0.191 J**	**0.115 J**	**0.0405 J**
PCB-095	E1668C	**0.938 J**	**4.275 J**	**1.923 J**	**3.675 J**
PCB-096	E1668C	**0.00654 J**	**0.135 J**	**0.105 J**	**0.0289 J**
PCB-098	E1668C	0.0038 UJ	**0.0197 J**	**0.0113 J**	**0.00911 J**
PCB-099	E1668C	**0.41 J**	**1.982 J**	**0.792 J**	**1.207 J**
PCB-102	E1668C	**0.0164 J**	**0.13 J**	**0.0748 J**	**0.0407 J**
PCB-103	E1668C	**0.0654 J**	**0.379 J**	**0.179 J**	**0.14 J**
PCB-104	E1668C	**0.00561 J**	**0.0654 J**	**0.032 J**	**0.0126 J**
PCB-105	E1668C	**0.0787 J**	**0.312 J**	**0.105 J**	**0.223 J**
PCB-106	E1668C	0.00212 UJ	0.00802 UJ	0.00336 UJ	0.00511 UJ
PCB-107	E1668C	**0.0306 J**	**0.147 J**	**0.0486 J**	**0.0894 J**
PCB-108/124	E1668C	**0.0188 J**	**0.0773 J**	**0.0245 J**	**0.0607 J**
PCB-110	E1668C	**0.63 J**	**2.958 J**	**1.107 J**	**2.47 J**
PCB-111	E1668C	0.0023 UJ	0.00905 UJ	0.00341 UJ	0.00576 UJ
PCB-112	E1668C	0.00214 UJ	**0.00704 J**	0.0038 UJ	0.00494 UJ
PCB-114	E1668C	**0.00536 J**	**0.017 J**	**0.00578 J**	0.00488 UJ
PCB-115	E1668C	0.00223 UJ	0.00814 UJ	0.00386 UJ	0.00456 UJ
PCB-117	E1668C	**0.0226 J**	**0.106 J**	**0.0502 J**	**0.0604 J**
PCB-118	E1668C	**0.281 J**	**1.319 J**	**0.381 J**	**0.851 J**
PCB-120	E1668C	**0.00521 J**	**0.0347 J**	**0.0115 J**	**0.0157 J**
PCB-121	E1668C	**0.00333 J**	**0.0138 J**	**0.00491 J**	0.0055 UJ
PCB-122	E1668C	**0.00572 J**	**0.0205 J**	**0.00715 J**	0.00631 UJ
PCB-123	E1668C	**0.00709 J**	**0.028 J**	**0.00865 J**	**0.0211 J**
PCB-126	E1668C	0.00215 UJ	**0.00768 J**	0.00218 UJ	**0.00283 J**
PCB-127	E1668C	0.00195 UJ	0.00857 UJ	0.00269 UJ	0.0059 UJ
PCB-128/166	E1668C	**0.113 J**	**0.638 J**	**0.167 J**	**0.442 J**
PCB-129/138/163	E1668C	**1.323 J**	**6.613 J**	**2.041 J**	**4.457 J**
PCB-130	E1668C	**0.0644 J**	**0.377 J**	**0.112 J**	**0.237 J**
PCB-131	E1668C	**0.0102 J**	**0.048 J**	**0.0166 J**	**0.0288 J**
PCB-132	E1668C	**0.405 J**	**1.823 J**	**0.621 J**	**1.326 J**
PCB-133	E1668C	**0.0336 J**	**0.171 J**	**0.0487 J**	**0.1 J**
PCB-134	E1668C	**0.0946 J**	**0.401 J**	**0.149 J**	**0.273 J**
PCB-135/151	E1668C	**1.126 J**	**4.225 J**	**1.334 J**	**3.028 J**

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP12-B/C-4	VP12-B-2/3	VP12-C-3	VP15-G/H-9
	Sample ID	HOUS-IN-SITU-SPME-VP12-B/C-4-240730	HOUS-IN-SITU-SPME-VP12-B-2/3-240730	HOUS-IN-SITU-SPME-VP12-C-3-240730	HOUS-IN-SITU-SPME-VP15-G/H-9-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-136	E1668C	**0.344 J**	**1.56 J**	**0.457 J**	**1.15 J**
PCB-137	E1668C	**0.0264 J**	**0.108 J**	**0.0312 J**	**0.0994 J**
PCB-139/140	E1668C	**0.0199 J**	**0.109 J**	**0.0319 J**	**0.0663 J**
PCB-141	E1668C	**0.33 J**	**1.168 J**	**0.366 J**	**1.051 J**
PCB-142	E1668C	0.000707 UJ	0.000547 UJ	0.000263 UJ	0.000296 UJ
PCB-143	E1668C	0.000615 UJ	0.000486 UJ	0.000217 UJ	0.000269 UJ
PCB-144	E1668C	**0.109 J**	**0.345 J**	**0.115 J**	**0.287 J**
PCB-145	E1668C	0.000582 UJ	0.000389 UJ	0.000237 UJ	0.000228 UJ
PCB-146	E1668C	**0.244 J**	**1.253 J**	**0.337 J**	**0.785 J**
PCB-147/149	E1668C	**1.901 J**	**7.605 J**	**2.451 J**	**5.651 J**
PCB-148	E1668C	**0.0124 J**	**0.0632 J**	**0.019 J**	**0.0249 J**
PCB-150	E1668C	**0.0123 J**	**0.0769 J**	**0.0352 J**	**0.0271 J**
PCB-152	E1668C	**0.00578 J**	**0.0477 J**	**0.0234 J**	**0.0137 J**
PCB-153/168	E1668C	**1.513 J**	**7.176 J**	**1.831 J**	**5.147 J**
PCB-154	E1668C	**0.0522 J**	**0.287 J**	**0.0849 J**	**0.128 J**
PCB-155	E1668C	**0.00086 J**	**0.00579 J**	**0.00166 J**	**0.00197 J**
PCB-156/157	E1668C	**0.0397 J**	**0.262 J**	**0.0562 J**	**0.165 J**
PCB-158	E1668C	**0.0998 J**	**0.465 J**	**0.124 J**	**0.369 J**
PCB-159	E1668C	**0.0204 J**	**0.105 J**	**0.0223 J**	**0.0787 J**
PCB-160	E1668C	0.000489 UJ	0.000432 UJ	0.000144 UJ	0.000246 UJ
PCB-161	E1668C	0.000433 UJ	0.000406 UJ	0.000118 UJ	0.000232 UJ
PCB-162	E1668C	**0.00262 J**	**0.0232 J**	**0.00474 J**	**0.0129 J**
PCB-164	E1668C	**0.0895 J**	**0.477 J**	**0.117 J**	**0.339 J**
PCB-165	E1668C	0.000492 UJ	**0.0273 J**	**0.00698 J**	0.000262 UJ
PCB-167	E1668C	**0.0207 J**	**0.154 J**	**0.0319 J**	**0.104 J**
PCB-169	E1668C	0.00216 UJ	**0.0108 J**	**0.00282 J**	0.00137 UJ
PCB-170	E1668C	**0.182 J**	**1.331 J**	**0.279 J**	**0.852 J**
PCB-171/173	E1668C	**0.0982 J**	**0.527 J**	**0.124 J**	**0.398 J**
PCB-172	E1668C	**0.0495 J**	**0.321 J**	**0.0622 J**	**0.23 J**
PCB-174	E1668C	**0.436 J**	**2.061 J**	**0.486 J**	**1.723 J**
PCB-175	E1668C	**0.0187 J**	**0.0875 J**	**0.0186 J**	**0.0683 J**
PCB-176	E1668C	**0.0842 J**	**0.375 J**	**0.102 J**	**0.254 J**
PCB-177	E1668C	**0.227 J**	**1.197 J**	**0.268 J**	**0.868 J**
PCB-178	E1668C	**0.16 J**	**0.823 J**	**0.164 J**	**0.549 J**
PCB-179	E1668C	**0.334 J**	**1.452 J**	**0.4 J**	**0.967 J**
PCB-180/193	E1668C	**0.512 J**	**3.344 J**	**0.657 J**	**2.592 J**
PCB-181	E1668C	0.00193 UJ	**0.0112 J**	**0.00224 J**	**0.00779 J**

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP12-B/C-4	VP12-B-2/3	VP12-C-3	VP15-G/H-9
	Sample ID	HOUS-IN-SITU-SPME-VP12-B/C-4-240730	HOUS-IN-SITU-SPME-VP12-B-2/3-240730	HOUS-IN-SITU-SPME-VP12-C-3-240730	HOUS-IN-SITU-SPME-VP15-G/H-9-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-182	E1668C	0.00177 UJ	**0.0138 J**	**0.00291 J**	**0.00757 J**
PCB-183	E1668C	**0.23 J**	**1.073 J**	**0.235 J**	**0.86 J**
PCB-184	E1668C	0.000551 UJ	0.00042 UJ	**0.000515 J**	0.000232 UJ
PCB-185	E1668C	**0.0659 J**	**0.294 J**	**0.0643 J**	**0.237 J**
PCB-186	E1668C	0.000493 UJ	0.000356 UJ	0.000212 UJ	0.000194 UJ
PCB-187	E1668C	**0.609 J**	**3.284 J**	**0.604 J**	**2.172 J**
PCB-188	E1668C	**0.00192 J**	**0.0114 J**	**0.00347 J**	**0.00372 J**
PCB-189	E1668C	**0.0047 J**	**0.0515 J**	**0.00749 J**	**0.0303 J**
PCB-190	E1668C	**0.0479 J**	**0.363 J**	**0.0627 J**	**0.228 J**
PCB-191	E1668C	**0.00982 J**	**0.0712 J**	**0.0124 J**	**0.0526 J**
PCB-192	E1668C	0.00166 UJ	0.00309 UJ	0.000492 UJ	0.00274 UJ
PCB-194	E1668C	**0.044 J**	**0.507 J**	**0.0639 J**	**0.313 J**
PCB-195	E1668C	**0.0303 J**	**0.279 J**	**0.0396 J**	**0.178 J**
PCB-196	E1668C	**0.0512 J**	**0.405 J**	**0.0593 J**	**0.288 J**
PCB-197	E1668C	**0.00617 J**	**0.0405 J**	**0.00697 J**	**0.029 J**
PCB-198/199	E1668C	**0.128 J**	**1.005 J**	**0.133 J**	**0.688 J**
PCB-200	E1668C	**0.0279 J**	**0.167 J**	**0.027 J**	**0.12 J**
PCB-201	E1668C	**0.0253 J**	**0.178 J**	**0.021 J**	**0.124 J**
PCB-202	E1668C	**0.0427 J**	**0.227 J**	**0.0363 J**	**0.165 J**
PCB-203	E1668C	**0.0675 J**	**0.572 J**	**0.0729 J**	**0.399 J**
PCB-204	E1668C	0.000629 UJ	0.000486 UJ	0.000114 UJ	0.000338 UJ
PCB-205	E1668C	**0.00246 J**	**0.041 J**	**0.00403 J**	**0.0228 J**
PCB-206	E1668C	**0.0104 J**	**0.133 J**	**0.012 J**	**0.0835 J**
PCB-207	E1668C	**0.00248 J**	**0.0228 J**	**0.00271 J**	**0.0148 J**
PCB-208	E1668C	**0.00481 J**	**0.0376 J**	**0.00434 J**	**0.0243 J**
PCB-209	E1668C	**0.00117 J**	**0.00812 J**	**0.000809 J**	**0.00493 J**
Total PCB Congener (U = 0 max limit)		**18 J**	**92 J**	**33 J**	**61 J**

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

Location ID		VP15-G-10	VP15-G-10	VP15-G-11	VP15-G-12
Sample ID		HOUS-IN-SITU-SPME-VP15-G-10-240730	HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	HOUS-IN-SITU-SPME-VP15-G-11-240730	HOUS-IN-SITU-SPME-VP15-G-12-240730
Sample Date		7/30/2024	7/30/2024	7/30/2024	7/30/2024
Depth		0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
Sample Type		N	FD	N	N
Matrix		SPME	SPME	SPME	SPME
PCB Congeners (SPME) (ng/L)					
PCB-001	E1668C	0.0136 UJ	0.0137 UJ	0.0142 UJ	0.0123 UJ
PCB-002	E1668C	0.00494 UJ	0.00491 UJ	0.00504 UJ	0.0043 UJ
PCB-003	E1668C	0.00507 UJ	0.0051 UJ	0.00519 UJ	0.00442 UJ
PCB-004	E1668C	**0.241 J**	**0.263 J**	**0.016 J**	**0.066 J**
PCB-005	E1668C	0.0063 UJ	0.00602 UJ	0.00542 UJ	0.00704 UJ
PCB-006	E1668C	**0.00514 J**	**0.00575 J**	0.00374 UJ	**0.0144 J**
PCB-007	E1668C	0.00499 UJ	0.00488 UJ	0.0043 UJ	0.00556 UJ
PCB-008	E1668C	**0.0049 J**	**0.00864 J**	**0.00638 J**	**0.00748 J**
PCB-009	E1668C	0.00451 UJ	0.0044 UJ	0.00389 UJ	**0.00348 J**
PCB-010	E1668C	**0.0201 J**	**0.0194 J**	0.00589 UJ	**0.00797 J**
PCB-011	E1668C	0.00679 UJ	0.00646 UJ	0.00796 UJ	0.00729 UJ
PCB-012/013	E1668C	0.0039 UJ	0.00385 UJ	0.00336 UJ	**0.00716 J**
PCB-014	E1668C	0.00322 UJ	0.00321 UJ	0.00277 UJ	0.00361 UJ
PCB-015	E1668C	**0.00997 J**	**0.0104 J**	**0.00787 J**	**0.00741 J**
PCB-016	E1668C	**0.00707 J**	**0.00723 J**	**0.0053 J**	**0.00957 J**
PCB-017	E1668C	**0.281 J**	**0.141 J**	**0.0131 J**	**0.0895 J**
PCB-018/030	E1668C	**0.23 J**	**0.0946 J**	**0.0117 J**	**0.358 J**
PCB-019	E1668C	**0.563 J**	**0.287 J**	**0.0156 J**	**0.0549 J**
PCB-020/028	E1668C	**0.0634 J**	**0.0528 J**	**0.0239 J**	**0.0612 J**
PCB-021/033	E1668C	**0.206 J**	**0.0691 J**	**0.00207 J**	**0.0151 J**
PCB-022	E1668C	0.0025 UJ	0.00298 UJ	**0.00224 J**	**0.00273 J**
PCB-023	E1668C	0.0032 UJ	0.00386 UJ	0.00279 UJ	0.00214 UJ
PCB-024	E1668C	0.00214 UJ	0.00265 UJ	0.00188 UJ	0.00184 UJ
PCB-025	E1668C	**0.119 J**	**0.0673 J**	**0.00623 J**	**0.0392 J**
PCB-026/029	E1668C	**0.0846 J**	**0.0501 J**	**0.0109 J**	**0.0962 J**
PCB-027	E1668C	**0.237 J**	**0.115 J**	**0.0123 J**	**0.286 J**
PCB-031	E1668C	**0.0283 J**	**0.0287 J**	**0.0194 J**	**0.03 J**
PCB-032	E1668C	**0.524 J**	**0.133 J**	**0.00433 J**	**0.0857 J**
PCB-034	E1668C	0.00265 UJ	0.00325 UJ	0.00231 UJ	**0.00348 J**
PCB-035	E1668C	0.00152 UJ	0.00195 UJ	0.00133 UJ	0.00104 UJ
PCB-036	E1668C	0.00129 UJ	0.00166 UJ	0.00113 UJ	0.000881 UJ
PCB-037	E1668C	0.00131 UJ	**0.00469 J**	**0.00471 J**	**0.00445 J**
PCB-038	E1668C	0.00167 UJ	0.0021 UJ	0.00146 UJ	0.00113 UJ
PCB-039	E1668C	0.00139 UJ	0.0018 UJ	0.00121 UJ	0.000949 UJ
PCB-040/071	E1668C	**0.3 J**	**0.199 J**	**0.0299 J**	**0.116 J**
PCB-041	E1668C	0.00165 UJ	0.00194 UJ	0.00112 UJ	0.00123 UJ

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP15-G-10	VP15-G-10	VP15-G-11	VP15-G-12
	Sample ID	HOUS-IN-SITU-SPME-VP15-G-10-240730	HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	HOUS-IN-SITU-SPME-VP15-G-11-240730	HOUS-IN-SITU-SPME-VP15-G-12-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	FD	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-042	E1668C	**0.0891 J**	**0.081 J**	**0.0323 J**	**0.0842 J**
PCB-043	E1668C	**0.00816 J**	0.00163 UJ	0.000794 UJ	**0.00704 J**
PCB-044/047/065	E1668C	**4.849 J**	**3.128 J**	**0.652 J**	**1.581 J**
PCB-045	E1668C	0.00258 UJ	**0.0508 J**	0.00174 UJ	**0.0253 J**
PCB-046	E1668C	**0.145 J**	**0.0769 J**	**0.00605 J**	**0.0578 J**
PCB-048	E1668C	**0.00474 J**	0.00156 UJ	0.000793 UJ	0.00088 UJ
PCB-049/069	E1668C	**2.042 J**	**1.626 J**	**0.75 J**	**1.553 J**
PCB-050/053	E1668C	**4.436 J**	**2.388 J**	**0.181 J**	**0.928 J**
PCB-051	E1668C	**4.815 J**	**1.579 J**	**0.0634 J**	**0.279 J**
PCB-052	E1668C	**1.583 J**	**1.192 J**	**1.152 J**	**1.442 J**
PCB-054	E1668C	**1.326 J**	**0.346 J**	**0.0155 J**	**0.0215 J**
PCB-055	E1668C	0.00165 UJ	0.00166 UJ	0.00201 UJ	0.00167 UJ
PCB-056	E1668C	**0.00667 J**	**0.0101 J**	**0.0155 J**	**0.0116 J**
PCB-057	E1668C	0.00181 UJ	0.00186 UJ	0.00219 UJ	0.00182 UJ
PCB-058	E1668C	0.00158 UJ	0.00162 UJ	0.0019 UJ	0.00158 UJ
PCB-059/062/075	E1668C	**0.101 J**	**0.0693 J**	**0.0358 J**	**0.0916 J**
PCB-060	E1668C	0.00205 UJ	**0.00226 J**	**0.00448 J**	0.00207 UJ
PCB-061/070/074/076	E1668C	**0.131 J**	**0.166 J**	**0.242 J**	**0.206 J**
PCB-063	E1668C	**0.00593 J**	**0.0054 J**	**0.00544 J**	**0.00989 J**
PCB-064	E1668C	**0.0511 J**	**0.0597 J**	**0.0978 J**	**0.087 J**
PCB-066	E1668C	**0.0792 J**	**0.0955 J**	**0.108 J**	**0.162 J**
PCB-067	E1668C	0.00153 UJ	**0.00669 J**	0.00183 UJ	**0.00525 J**
PCB-068	E1668C	**0.0328 J**	**0.0266 J**	**0.0193 J**	**0.0458 J**
PCB-072	E1668C	**0.0193 J**	**0.0203 J**	**0.0243 J**	**0.0467 J**
PCB-073	E1668C	**0.111 J**	**0.0907 J**	**0.0211 J**	**0.0709 J**
PCB-077	E1668C	**0.00384 J**	**0.00753 J**	**0.00712 J**	**0.00613 J**
PCB-078	E1668C	0.00146 UJ	0.00144 UJ	0.00168 UJ	0.0014 UJ
PCB-079	E1668C	**0.00385 J**	**0.00418 J**	**0.00605 J**	**0.00612 J**
PCB-080	E1668C	0.00138 UJ	0.00132 UJ	0.00152 UJ	0.00126 UJ
PCB-081	E1668C	0.00136 UJ	0.00137 UJ	0.00156 UJ	0.00131 UJ
PCB-082	E1668C	**0.0243 J**	**0.0332 J**	**0.0519 J**	**0.0303 J**
PCB-083	E1668C	**0.0266 J**	**0.028 J**	**0.0525 J**	**0.0481 J**
PCB-084	E1668C	**0.119 J**	**0.146 J**	**0.201 J**	**0.136 J**
PCB-085/116	E1668C	**0.0999 J**	**0.116 J**	**0.233 J**	**0.158 J**
PCB-086/087/097/109/119/125	E1668C	**0.437 J**	**0.489 J**	**0.808 J**	**0.585 J**
PCB-088	E1668C	0.00707 UJ	0.00692 UJ	0.00829 UJ	0.00629 UJ
PCB-089	E1668C	0.00532 UJ	0.00634 UJ	0.00622 UJ	0.00473 UJ

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP15-G-10	VP15-G-10	VP15-G-11	VP15-G-12
	Sample ID	HOUS-IN-SITU-SPME-VP15-G-10-240730	HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	HOUS-IN-SITU-SPME-VP15-G-11-240730	HOUS-IN-SITU-SPME-VP15-G-12-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	FD	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-090/101/113	E1668C	**1.469 J**	**1.623 J**	**2.935 J**	**1.828 J**
PCB-091	E1668C	**0.759 J**	**0.772 J**	**0.507 J**	**0.773 J**
PCB-092	E1668C	**0.44 J**	**0.461 J**	**0.756 J**	**0.696 J**
PCB-093/100	E1668C	**0.686 J**	**0.373 J**	**0.157 J**	**0.307 J**
PCB-094	E1668C	**0.185 J**	**0.139 J**	**0.0411 J**	**0.12 J**
PCB-095	E1668C	**1.177 J**	**1.494 J**	**3.04 J**	**1.612 J**
PCB-096	E1668C	**0.191 J**	**0.16 J**	**0.0295 J**	**0.0697 J**
PCB-098	E1668C	**0.0176 J**	**0.0139 J**	0.00621 UJ	**0.0135 J**
PCB-099	E1668C	**0.545 J**	**0.547 J**	**0.883 J**	**0.884 J**
PCB-102	E1668C	**0.0918 J**	**0.0617 J**	**0.0442 J**	**0.0712 J**
PCB-103	E1668C	**0.291 J**	**0.211 J**	**0.153 J**	**0.235 J**
PCB-104	E1668C	**0.131 J**	**0.0385 J**	**0.00792 J**	**0.0106 J**
PCB-105	E1668C	**0.096 J**	**0.109 J**	**0.156 J**	**0.115 J**
PCB-106	E1668C	0.00287 UJ	0.00299 UJ	0.00284 UJ	0.00213 UJ
PCB-107	E1668C	**0.0381 J**	**0.0386 J**	**0.0595 J**	**0.0633 J**
PCB-108/124	E1668C	**0.0192 J**	**0.0197 J**	**0.0367 J**	**0.0234 J**
PCB-110	E1668C	**0.732 J**	**0.865 J**	**1.604 J**	**1.118 J**
PCB-111	E1668C	0.00332 UJ	**0.00327 J**	**0.00461 J**	**0.00656 J**
PCB-112	E1668C	0.0027 UJ	0.00312 UJ	0.00289 UJ	**0.00393 J**
PCB-114	E1668C	**0.00602 J**	**0.00586 J**	**0.00916 J**	**0.00613 J**
PCB-115	E1668C	0.0025 UJ	0.00285 UJ	0.00264 UJ	0.00201 UJ
PCB-117	E1668C	**0.0679 J**	**0.0465 J**	**0.0451 J**	**0.0563 J**
PCB-118	E1668C	**0.337 J**	**0.346 J**	**0.561 J**	**0.46 J**
PCB-120	E1668C	**0.0122 J**	**0.0088 J**	**0.0128 J**	**0.0187 J**
PCB-121	E1668C	**0.0102 J**	**0.00654 J**	**0.00485 J**	**0.00818 J**
PCB-122	E1668C	**0.00463 J**	**0.0058 J**	**0.00936 J**	**0.00624 J**
PCB-123	E1668C	**0.00718 J**	**0.00724 J**	**0.0122 J**	**0.00908 J**
PCB-126	E1668C	**0.00194 J**	**0.0025 J**	**0.00218 J**	**0.00201 J**
PCB-127	E1668C	0.00366 UJ	0.00292 UJ	0.00308 UJ	**0.00244 J**
PCB-128/166	E1668C	**0.221 J**	**0.179 J**	**0.306 J**	**0.203 J**
PCB-129/138/163	E1668C	**2.037 J**	**2.09 J**	**3.276 J**	**2.163 J**
PCB-130	E1668C	**0.118 J**	**0.109 J**	**0.168 J**	**0.136 J**
PCB-131	E1668C	**0.0123 J**	**0.0158 J**	**0.0257 J**	**0.0123 J**
PCB-132	E1668C	**0.498 J**	**0.589 J**	**1.031 J**	**0.527 J**
PCB-133	E1668C	**0.072 J**	**0.0541 J**	**0.0828 J**	**0.0752 J**
PCB-134	E1668C	**0.12 J**	**0.127 J**	**0.217 J**	**0.138 J**
PCB-135/151	E1668C	**1.445 J**	**1.509 J**	**2.687 J**	**1.58 J**

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP15-G-10	VP15-G-10	VP15-G-11	VP15-G-12
	Sample ID	HOUS-IN-SITU-SPME-VP15-G-10-240730	HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	HOUS-IN-SITU-SPME-VP15-G-11-240730	HOUS-IN-SITU-SPME-VP15-G-12-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	FD	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-136	E1668C	**0.538 J**	**0.52 J**	**0.971 J**	**0.458 J**
PCB-137	E1668C	**0.0345 J**	**0.0369 J**	**0.0516 J**	**0.0356 J**
PCB-139/140	E1668C	**0.0329 J**	**0.028 J**	**0.0475 J**	**0.0412 J**
PCB-141	E1668C	**0.489 J**	**0.474 J**	**0.859 J**	**0.373 J**
PCB-142	E1668C	0.000364 UJ	0.00038 UJ	0.000261 UJ	0.000421 UJ
PCB-143	E1668C	0.000334 UJ	0.00035 UJ	0.000232 UJ	0.00037 UJ
PCB-144	E1668C	**0.125 J**	**0.138 J**	**0.247 J**	**0.0926 J**
PCB-145	E1668C	**0.000593 J**	0.000294 UJ	0.000202 UJ	0.000319 UJ
PCB-146	E1668C	**0.468 J**	**0.378 J**	**0.626 J**	**0.475 J**
PCB-147/149	E1668C	**2.535 J**	**2.646 J**	**4.528 J**	**2.63 J**
PCB-148	E1668C	**0.0351 J**	**0.0207 J**	**0.0231 J**	**0.0287 J**
PCB-150	E1668C	**0.0452 J**	**0.0327 J**	**0.0277 J**	**0.0413 J**
PCB-152	E1668C	**0.0334 J**	**0.0228 J**	**0.0122 J**	**0.021 J**
PCB-153/168	E1668C	**2.588 J**	**2.268 J**	**3.997 J**	**2.316 J**
PCB-154	E1668C	**0.135 J**	**0.0928 J**	**0.121 J**	**0.143 J**
PCB-155	E1668C	**0.00547 J**	**0.00187 J**	**0.00164 J**	**0.00179 J**
PCB-156/157	E1668C	**0.102 J**	**0.0762 J**	**0.125 J**	**0.085 J**
PCB-158	E1668C	**0.185 J**	**0.16 J**	**0.261 J**	**0.139 J**
PCB-159	E1668C	**0.0561 J**	**0.032 J**	**0.0685 J**	**0.0336 J**
PCB-160	E1668C	0.000333 UJ	0.000275 UJ	0.00020 UJ	0.000301 UJ
PCB-161	E1668C	0.00033 UJ	0.000242 UJ	0.000186 UJ	**0.000666 J**
PCB-162	E1668C	**0.00735 J**	**0.00532 J**	**0.0105 J**	**0.00689 J**
PCB-164	E1668C	**0.183 J**	**0.152 J**	**0.256 J**	**0.159 J**
PCB-165	E1668C	**0.0146 J**	0.000273 UJ	**0.00964 J**	**0.0154 J**
PCB-167	E1668C	**0.064 J**	**0.0401 J**	**0.0768 J**	**0.0485 J**
PCB-169	E1668C	0.00184 UJ	**0.00358 J**	0.00166 UJ	**0.00374 J**
PCB-170	E1668C	**0.684 J**	**0.412 J**	**0.747 J**	**0.436 J**
PCB-171/173	E1668C	**0.266 J**	**0.179 J**	**0.339 J**	**0.174 J**
PCB-172	E1668C	**0.183 J**	**0.102 J**	**0.201 J**	**0.113 J**
PCB-174	E1668C	**1.127 J**	**0.737 J**	**1.523 J**	**0.768 J**
PCB-175	E1668C	**0.0505 J**	**0.0304 J**	**0.0621 J**	**0.0241 J**
PCB-176	E1668C	**0.155 J**	**0.123 J**	**0.222 J**	**0.097 J**
PCB-177	E1668C	**0.556 J**	**0.384 J**	**0.748 J**	**0.416 J**
PCB-178	E1668C	**0.41 J**	**0.25 J**	**0.457 J**	**0.269 J**
PCB-179	E1668C	**0.576 J**	**0.484 J**	**0.856 J**	**0.453 J**
PCB-180/193	E1668C	**2.075 J**	**1.128 J**	**2.32 J**	**1.168 J**
PCB-181	E1668C	**0.0046 J**	**0.00274 J**	**0.00579 J**	**0.00348 J**

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP15-G-10	VP15-G-10	VP15-G-11	VP15-G-12
	Sample ID	HOUS-IN-SITU-SPME-VP15-G-10-240730	HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	HOUS-IN-SITU-SPME-VP15-G-11-240730	HOUS-IN-SITU-SPME-VP15-G-12-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	FD	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-182	E1668C	**0.00908 J**	**0.00377 J**	**0.00714 J**	**0.00608 J**
PCB-183	E1668C	**0.626 J**	**0.358 J**	**0.785 J**	**0.359 J**
PCB-184	E1668C	0.000356 UJ	0.000382 UJ	0.000205 UJ	**0.000354 J**
PCB-185	E1668C	**0.128 J**	**0.106 J**	**0.215 J**	**0.0995 J**
PCB-186	E1668C	0.000286 UJ	0.000343 UJ	0.000177 UJ	0.000235 UJ
PCB-187	E1668C	**1.576 J**	**0.952 J**	**1.933 J**	**1.083 J**
PCB-188	E1668C	**0.00855 J**	**0.00308 J**	**0.00371 J**	**0.00423 J**
PCB-189	E1668C	**0.0294 J**	**0.0147 J**	**0.0272 J**	**0.0164 J**
PCB-190	E1668C	**0.203 J**	**0.106 J**	**0.203 J**	**0.115 J**
PCB-191	E1668C	**0.0508 J**	**0.0256 J**	**0.0483 J**	**0.0234 J**
PCB-192	E1668C	0.00216 UJ	0.00141 UJ	0.00207 UJ	0.00164 UJ
PCB-194	E1668C	**0.4 J**	**0.148 J**	**0.31 J**	**0.166 J**
PCB-195	E1668C	**0.174 J**	**0.0816 J**	**0.164 J**	**0.0858 J**
PCB-196	E1668C	**0.308 J**	**0.125 J**	**0.265 J**	**0.118 J**
PCB-197	E1668C	**0.0219 J**	**0.0119 J**	**0.0237 J**	**0.0099 J**
PCB-198/199	E1668C	**0.678 J**	**0.287 J**	**0.623 J**	**0.322 J**
PCB-200	E1668C	**0.0927 J**	**0.0522 J**	**0.112 J**	**0.0495 J**
PCB-201	E1668C	**0.123 J**	**0.0466 J**	**0.115 J**	**0.0413 J**
PCB-202	E1668C	**0.13 J**	**0.0666 J**	**0.148 J**	**0.073 J**
PCB-203	E1668C	**0.393 J**	**0.154 J**	**0.354 J**	**0.172 J**
PCB-204	E1668C	0.000348 UJ	0.000417 UJ	0.000383 UJ	0.000184 UJ
PCB-205	E1668C	**0.0335 J**	**0.0108 J**	**0.0241 J**	**0.0126 J**
PCB-206	E1668C	**0.113 J**	**0.0325 J**	**0.0863 J**	**0.0376 J**
PCB-207	E1668C	**0.015 J**	**0.00581 J**	**0.0148 J**	**0.00547 J**
PCB-208	E1668C	**0.023 J**	**0.00862 J**	**0.0228 J**	**0.0092 J**
PCB-209	E1668C	**0.00424 J**	**0.00148 J**	**0.0034 J**	**0.00166 J**
Total PCB Congener (U = 0 max limit)		**54 J**	**39 J**	**49 J**	**36 J**

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP15-G-13	VP15-H-12	VP15-H-14	VP15-I-15
	Sample ID	HOUS-IN-SITU-SPME-VP15-G-13-240730	HOUS-IN-SITU-SPME-VP15-H-12-240730	HOUS-IN-SITU-SPME-VP15-H-14-240730	HOUS-IN-SITU-SPME-VP15-I-15-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB Congeners (SPME) (ng/L)					
PCB-001	E1668C	0.0132 UJ	0.0123 UJ	0.0109 UJ	0.0125 UJ
PCB-002	E1668C	0.00472 UJ	0.00388 UJ	0.00415 UJ	0.00474 UJ
PCB-003	E1668C	0.0049 UJ	0.00398 UJ	0.00427 UJ	0.00488 UJ
PCB-004	E1668C	**0.173 J**	**0.024 J**	**0.0502 J**	**0.0195 J**
PCB-005	E1668C	0.00445 UJ	0.00281 UJ	0.00426 UJ	0.0104 UJ
PCB-006	E1668C	**0.00945 J**	**0.00298 J**	**0.00501 J**	0.00722 UJ
PCB-007	E1668C	**0.00327 J**	0.00224 UJ	0.00341 UJ	0.0083 UJ
PCB-008	E1668C	**0.00932 J**	**0.00754 J**	**0.0081 J**	**0.00667 J**
PCB-009	E1668C	**0.0034 J**	0.00202 UJ	0.00308 UJ	0.0075 UJ
PCB-010	E1668C	**0.018 J**	0.00576 UJ	**0.00515 J**	0.00584 UJ
PCB-011	E1668C	0.00933 UJ	0.00696 UJ	0.00931 UJ	0.00814 UJ
PCB-012/013	E1668C	**0.0101 J**	0.00175 UJ	**0.00405 J**	0.00657 UJ
PCB-014	E1668C	0.00239 UJ	0.00145 UJ	0.00225 UJ	0.00548 UJ
PCB-015	E1668C	**0.0244 J**	**0.00827 J**	**0.0107 J**	**0.00785 J**
PCB-016	E1668C	0.00542 UJ	**0.00422 J**	0.00352 UJ	0.00471 UJ
PCB-017	E1668C	**0.177 J**	**0.042 J**	**0.064 J**	**0.0189 J**
PCB-018/030	E1668C	**0.137 J**	**0.0302 J**	**0.0554 J**	**0.0144 J**
PCB-019	E1668C	**0.197 J**	**0.00928 J**	**0.0874 J**	**0.0257 J**
PCB-020/028	E1668C	**0.173 J**	**0.0727 J**	**0.0838 J**	**0.0299 J**
PCB-021/033	E1668C	**0.0575 J**	**0.0119 J**	**0.0325 J**	**0.0275 J**
PCB-022	E1668C	**0.00492 J**	**0.00593 J**	**0.0032 J**	0.00213 UJ
PCB-023	E1668C	0.00457 UJ	0.00256 UJ	0.00275 UJ	0.00273 UJ
PCB-024	E1668C	0.00263 UJ	0.00167 UJ	0.00169 UJ	0.00227 UJ
PCB-025	E1668C	**0.182 J**	**0.013 J**	**0.0649 J**	**0.0387 J**
PCB-026/029	E1668C	**0.137 J**	**0.0439 J**	**0.0609 J**	**0.0166 J**
PCB-027	E1668C	**0.313 J**	**0.00881 J**	**0.114 J**	**0.0186 J**
PCB-031	E1668C	**0.0865 J**	**0.0843 J**	**0.0436 J**	**0.021 J**
PCB-032	E1668C	**0.15 J**	**0.0108 J**	**0.0542 J**	**0.0265 J**
PCB-034	E1668C	**0.00486 J**	**0.00159 J**	**0.00277 J**	0.00239 UJ
PCB-035	E1668C	0.00245 UJ	0.00129 UJ	0.00145 UJ	0.0016 UJ
PCB-036	E1668C	0.00212 UJ	0.00112 UJ	0.00126 UJ	0.00147 UJ
PCB-037	E1668C	**0.00762 J**	**0.0155 J**	**0.00627 J**	**0.00593 J**
PCB-038	E1668C	0.00258 UJ	0.00139 UJ	**0.00196 J**	0.00165 UJ
PCB-039	E1668C	0.00231 UJ	0.00121 UJ	0.00136 UJ	0.0016 UJ
PCB-040/071	E1668C	**0.177 J**	**0.118 J**	**0.115 J**	**0.112 J**
PCB-041	E1668C	0.0020 UJ	0.00153 UJ	0.00194 UJ	0.00214 UJ

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP15-G-13	VP15-H-12	VP15-H-14	VP15-I-15
	Sample ID	HOUS-IN-SITU-SPME-VP15-G-13-240730	HOUS-IN-SITU-SPME-VP15-H-12-240730	HOUS-IN-SITU-SPME-VP15-H-14-240730	HOUS-IN-SITU-SPME-VP15-I-15-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-042	E1668C	**0.247 J**	**0.147 J**	**0.135 J**	**0.0599 J**
PCB-043	E1668C	0.00172 UJ	0.00111 UJ	0.00141 UJ	0.0016 UJ
PCB-044/047/065	E1668C	**5.534 J**	**1.399 J**	**4.274 J**	**3.226 J**
PCB-045	E1668C	**0.035 J**	**0.0386 J**	**0.0122 J**	**0.00933 J**
PCB-046	E1668C	**0.127 J**	**0.00479 J**	**0.0683 J**	**0.0211 J**
PCB-048	E1668C	0.00165 UJ	**0.0159 J**	0.00143 UJ	0.00166 UJ
PCB-049/069	E1668C	**4.199 J**	**2.93 J**	**3.182 J**	**2.463 J**
PCB-050/053	E1668C	**3.508 J**	**0.256 J**	**1.771 J**	**1.35 J**
PCB-051	E1668C	**1.306 J**	**0.0385 J**	**0.693 J**	**0.597 J**
PCB-052	E1668C	**2.128 J**	**12.182 J**	**1.995 J**	**1.414 J**
PCB-054	E1668C	**0.267 J**	**0.00862 J**	**0.125 J**	**0.121 J**
PCB-055	E1668C	0.00212 UJ	0.00414 UJ	0.00224 UJ	0.00349 UJ
PCB-056	E1668C	**0.00821 J**	**0.0655 J**	**0.0156 J**	**0.025 J**
PCB-057	E1668C	0.00244 UJ	0.00475 UJ	0.00251 UJ	0.00424 UJ
PCB-058	E1668C	0.00212 UJ	0.00412 UJ	0.00218 UJ	0.00368 UJ
PCB-059/062/075	E1668C	**0.139 J**	**0.0932 J**	**0.142 J**	**0.11 J**
PCB-060	E1668C	0.0026 UJ	**0.0122 J**	0.00277 UJ	0.00432 UJ
PCB-061/070/074/076	E1668C	**0.18 J**	**1.435 J**	**0.323 J**	**0.373 J**
PCB-063	E1668C	**0.0118 J**	**0.0144 J**	**0.0149 J**	**0.0115 J**
PCB-064	E1668C	**0.0926 J**	**0.475 J**	**0.13 J**	**0.123 J**
PCB-066	E1668C	**0.183 J**	**0.56 J**	**0.283 J**	**0.322 J**
PCB-067	E1668C	**0.013 J**	**0.0108 J**	**0.0152 J**	0.00375 UJ
PCB-068	E1668C	**0.0726 J**	**0.0443 J**	**0.0851 J**	**0.0831 J**
PCB-072	E1668C	**0.0522 J**	**0.109 J**	**0.0801 J**	**0.0861 J**
PCB-073	E1668C	**0.154 J**	**0.0269 J**	**0.135 J**	**0.146 J**
PCB-077	E1668C	**0.00645 J**	**0.0284 J**	0.00203 UJ	**0.0118 J**
PCB-078	E1668C	0.00209 UJ	0.00437 UJ	0.00211 UJ	0.00453 UJ
PCB-079	E1668C	**0.0069 J**	**0.0686 J**	**0.0129 J**	**0.022 J**
PCB-080	E1668C	0.00207 UJ	0.00455 UJ	0.0020 UJ	0.00512 UJ
PCB-081	E1668C	0.0020 UJ	0.00411 UJ	0.00197 UJ	0.00429 UJ
PCB-082	E1668C	**0.0235 J**	**0.395 J**	**0.063 J**	**0.0821 J**
PCB-083	E1668C	**0.02 J**	**0.375 J**	**0.0578 J**	**0.17 J**
PCB-084	E1668C	**0.16 J**	**2.399 J**	**0.257 J**	**0.239 J**
PCB-085/116	E1668C	**0.0934 J**	**1.89 J**	**0.303 J**	**0.458 J**
PCB-086/087/097/109/119/125	E1668C	**0.486 J**	**6.738 J**	**1.084 J**	**1.595 J**
PCB-088	E1668C	0.0056 UJ	0.0945 UJ	0.0114 UJ	0.0135 UJ
PCB-089	E1668C	0.00513 UJ	0.0709 UJ	0.00854 UJ	0.0102 UJ

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP15-G-13	VP15-H-12	VP15-H-14	VP15-I-15
	Sample ID	HOUS-IN-SITU-SPME-VP15-G-13-240730	HOUS-IN-SITU-SPME-VP15-H-12-240730	HOUS-IN-SITU-SPME-VP15-H-14-240730	HOUS-IN-SITU-SPME-VP15-I-15-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-090/101/113	E1668C	**1.658 J**	**24.329 J**	**3.513 J**	**6.987 J**
PCB-091	E1668C	**1.302 J**	**2.579 J**	**1.549 J**	**2.296 J**
PCB-092	E1668C	**0.582 J**	**5.701 J**	**1.233 J**	**2.128 J**
PCB-093/100	E1668C	**0.655 J**	**0.289 J**	**0.803 J**	**0.92 J**
PCB-094	E1668C	**0.187 J**	**0.104 J**	**0.238 J**	**0.328 J**
PCB-095	E1668C	**1.291 J**	**26.329 J**	**2.872 J**	**4.437 J**
PCB-096	E1668C	**0.164 J**	**0.0584 J**	**0.16 J**	**0.213 J**
PCB-098	E1668C	**0.0224 J**	0.0745 UJ	**0.0239 J**	**0.031 J**
PCB-099	E1668C	**0.762 J**	**6.948 J**	**1.691 J**	**3.041 J**
PCB-102	E1668C	**0.0775 J**	**0.293 J**	**0.1 J**	**0.179 J**
PCB-103	E1668C	**0.397 J**	**0.551 J**	**0.502 J**	**0.792 J**
PCB-104	E1668C	**0.0466 J**	**0.00903 J**	**0.0385 J**	**0.0372 J**
PCB-105	E1668C	**0.0907 J**	**1.023 J**	**0.175 J**	**0.489 J**
PCB-106	E1668C	0.00338 UJ	0.0573 UJ	0.00494 UJ	0.0124 UJ
PCB-107	E1668C	**0.0561 J**	**0.418 J**	**0.118 J**	**0.254 J**
PCB-108/124	E1668C	**0.0213 J**	**0.343 J**	**0.0411 J**	**0.124 J**
PCB-110	E1668C	**0.849 J**	**13.966 J**	**2.165 J**	**4.306 J**
PCB-111	E1668C	**0.00627 J**	0.0707 UJ	**0.0127 J**	**0.0325 J**
PCB-112	E1668C	**0.00872 J**	0.0479 UJ	0.00479 UJ	**0.0115 J**
PCB-114	E1668C	**0.00644 J**	0.0569 UJ	**0.0112 J**	**0.0319 J**
PCB-115	E1668C	0.00294 UJ	0.0456 UJ	0.00443 UJ	0.00914 UJ
PCB-117	E1668C	**0.0995 J**	**0.263 J**	**0.119 J**	**0.236 J**
PCB-118	E1668C	**0.408 J**	**5.071 J**	**0.849 J**	**2.104 J**
PCB-120	E1668C	**0.0185 J**	0.0608 UJ	**0.0396 J**	**0.106 J**
PCB-121	E1668C	**0.017 J**	0.0616 UJ	**0.0212 J**	**0.0511 J**
PCB-122	E1668C	0.00396 UJ	0.0729 UJ	**0.0104 J**	**0.0328 J**
PCB-123	E1668C	**0.00879 J**	**0.118 J**	**0.0145 J**	**0.0495 J**
PCB-126	E1668C	**0.00301 J**	**0.0128 J**	**0.00344 J**	**0.00877 J**
PCB-127	E1668C	0.00376 UJ	0.0894 UJ	0.00537 UJ	0.0191 UJ
PCB-128/166	E1668C	**0.185 J**	**1.921 J**	**0.351 J**	**1.281 J**
PCB-129/138/163	E1668C	**1.798 J**	**19.07 J**	**3.57 J**	**11.717 J**
PCB-130	E1668C	**0.118 J**	**1.14 J**	**0.255 J**	**0.766 J**
PCB-131	E1668C	**0.013 J**	**0.207 J**	**0.0245 J**	0.00282 UJ
PCB-132	E1668C	**0.439 J**	**6.444 J**	**0.986 J**	**2.976 J**
PCB-133	E1668C	**0.0826 J**	**0.507 J**	**0.144 J**	**0.526 J**
PCB-134	E1668C	**0.126 J**	**1.386 J**	**0.263 J**	**0.702 J**
PCB-135/151	E1668C	**1.416 J**	**16.38 J**	**2.739 J**	**10.385 J**

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP15-G-13	VP15-H-12	VP15-H-14	VP15-I-15
	Sample ID	HOUS-IN-SITU-SPME-VP15-G-13-240730	HOUS-IN-SITU-SPME-VP15-H-12-240730	HOUS-IN-SITU-SPME-VP15-H-14-240730	HOUS-IN-SITU-SPME-VP15-I-15-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-136	E1668C	**0.53 J**	**7.417 J**	**0.968 J**	**4.371 J**
PCB-137	E1668C	**0.0313 J**	**0.554 J**	**0.0745 J**	**0.278 J**
PCB-139/140	E1668C	**0.0373 J**	**0.349 J**	**0.0808 J**	**0.24 J**
PCB-141	E1668C	**0.348 J**	**5.474 J**	**0.637 J**	**3.219 J**
PCB-142	E1668C	0.000757 UJ	0.000659 UJ	0.000625 UJ	0.00267 UJ
PCB-143	E1668C	0.000736 UJ	0.000642 UJ	0.000566 UJ	0.00274 UJ
PCB-144	E1668C	**0.0966 J**	**1.654 J**	**0.174 J**	**0.838 J**
PCB-145	E1668C	0.000513 UJ	**0.00633 J**	**0.000965 J**	0.00139 UJ
PCB-146	E1668C	**0.463 J**	**4.178 J**	**0.869 J**	**3.498 J**
PCB-147/149	E1668C	**2.469 J**	**26.803 J**	**4.824 J**	**17.005 J**
PCB-148	E1668C	**0.0454 J**	**0.0899 J**	**0.068 J**	**0.208 J**
PCB-150	E1668C	**0.0665 J**	**0.0749 J**	**0.0965 J**	**0.196 J**
PCB-152	E1668C	**0.0394 J**	**0.0321 J**	**0.0589 J**	**0.112 J**
PCB-153/168	E1668C	**2.215 J**	**26.712 J**	**4.062 J**	**19.418 J**
PCB-154	E1668C	**0.18 J**	**0.589 J**	**0.312 J**	**1.076 J**
PCB-155	E1668C	**0.00559 J**	**0.00531 J**	**0.00631 J**	**0.023 J**
PCB-156/157	E1668C	**0.0807 J**	**0.809 J**	**0.138 J**	**0.607 J**
PCB-158	E1668C	**0.143 J**	**1.973 J**	**0.249 J**	**1.274 J**
PCB-159	E1668C	**0.0324 J**	**0.383 J**	**0.0568 J**	**0.435 J**
PCB-160	E1668C	0.000699 UJ	0.000752 UJ	0.000498 UJ	0.00366 UJ
PCB-161	E1668C	0.000666 UJ	0.000789 UJ	0.000457 UJ	0.00402 UJ
PCB-162	E1668C	**0.00733 J**	**0.0686 J**	0.00199 UJ	**0.0644 J**
PCB-164	E1668C	**0.154 J**	**1.742 J**	**0.267 J**	**1.274 J**
PCB-165	E1668C	**0.0337 J**	**0.0477 J**	**0.0273 J**	**0.102 J**
PCB-167	E1668C	**0.049 J**	**0.55 J**	**0.0821 J**	**0.443 J**
PCB-169	E1668C	**0.00497 J**	0.00455 UJ	0.00196 UJ	0.00955 UJ
PCB-170	E1668C	**0.421 J**	**3.591 J**	**0.699 J**	**4.487 J**
PCB-171/173	E1668C	**0.174 J**	**1.903 J**	**0.306 J**	**1.886 J**
PCB-172	E1668C	**0.11 J**	**1.195 J**	**0.182 J**	**1.414 J**
PCB-174	E1668C	**0.702 J**	**8.069 J**	**1.25 J**	**8.257 J**
PCB-175	E1668C	**0.0274 J**	**0.385 J**	**0.0491 J**	**0.392 J**
PCB-176	E1668C	**0.106 J**	**1.125 J**	**0.191 J**	**0.97 J**
PCB-177	E1668C	**0.398 J**	**4.1 J**	**0.699 J**	**4.046 J**
PCB-178	E1668C	**0.304 J**	**2.83 J**	**0.476 J**	**3.148 J**
PCB-179	E1668C	**0.469 J**	**4.483 J**	**0.795 J**	**3.731 J**
PCB-180/193	E1668C	**1.163 J**	**12.923 J**	**1.905 J**	**15.963 J**
PCB-181	E1668C	**0.00418 J**	**0.0402 J**	**0.00679 J**	**0.0322 J**

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP15-G-13	VP15-H-12	VP15-H-14	VP15-I-15
	Sample ID	HOUS-IN-SITU-SPME-VP15-G-13-240730	HOUS-IN-SITU-SPME-VP15-H-12-240730	HOUS-IN-SITU-SPME-VP15-H-14-240730	HOUS-IN-SITU-SPME-VP15-I-15-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-182	E1668C	**0.00804 J**	**0.0409 J**	**0.0129 J**	**0.0811 J**
PCB-183	E1668C	**0.371 J**	**4.944 J**	**0.653 J**	**4.959 J**
PCB-184	E1668C	0.000809 UJ	**0.00518 J**	**0.00122 J**	0.00229 UJ
PCB-185	E1668C	**0.1 J**	**1.152 J**	**0.164 J**	**1.199 J**
PCB-186	E1668C	0.000663 UJ	0.000626 UJ	0.000485 UJ	0.00159 UJ
PCB-187	E1668C	**1.118 J**	**11.882 J**	**1.8 J**	**12.579 J**
PCB-188	E1668C	**0.00966 J**	**0.015 J**	**0.0125 J**	**0.0418 J**
PCB-189	E1668C	**0.0185 J**	**0.158 J**	**0.0267 J**	**0.228 J**
PCB-190	E1668C	**0.121 J**	**1.085 J**	**0.182 J**	**1.442 J**
PCB-191	E1668C	**0.0256 J**	**0.28 J**	**0.0446 J**	**0.396 J**
PCB-192	E1668C	0.00284 UJ	0.0111 UJ	0.00242 UJ	0.0226 UJ
PCB-194	E1668C	**0.185 J**	**1.658 J**	**0.274 J**	**3.456 J**
PCB-195	E1668C	**0.0966 J**	**0.898 J**	**0.149 J**	**1.491 J**
PCB-196	E1668C	**0.148 J**	**1.558 J**	**0.218 J**	**2.517 J**
PCB-197	E1668C	**0.0132 J**	**0.153 J**	**0.0206 J**	**0.192 J**
PCB-198/199	E1668C	**0.366 J**	**3.755 J**	**0.508 J**	**5.725 J**
PCB-200	E1668C	**0.0546 J**	**0.601 J**	**0.0878 J**	**0.738 J**
PCB-201	E1668C	**0.0637 J**	**0.847 J**	**0.0887 J**	**1.265 J**
PCB-202	E1668C	**0.0842 J**	**0.954 J**	**0.129 J**	**1.164 J**
PCB-203	E1668C	**0.204 J**	**2.228 J**	**0.285 J**	**3.371 J**
PCB-204	E1668C	0.000957 UJ	0.0017 UJ	0.000418 UJ	0.00504 UJ
PCB-205	E1668C	**0.0165 J**	**0.145 J**	**0.0207 J**	**0.312 J**
PCB-206	E1668C	**0.0457 J**	**0.542 J**	**0.0677 J**	**1.17 J**
PCB-207	E1668C	**0.00813 J**	**0.0874 J**	**0.0116 J**	**0.163 J**
PCB-208	E1668C	**0.0108 J**	**0.146 J**	**0.0192 J**	**0.225 J**
PCB-209	E1668C	0.00326 UJ	**0.0301 J**	**0.00399 J**	**0.0396 J**
Total PCB Congener (U = 0 max limit)		**48 J**	**320 J**	**65 J**	**210 J**

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

		Location ID	VP22-B-4/5	VP22-C-4	VP22-D-3	VP22-E-2
		Sample ID	HOUS-IN-SITU-SPME-VP22-B-4/5-240730	HOUS-IN-SITU-SPME-VP22-C-4-240730	HOUS-IN-SITU-SPME-VP22-D-3-240730	HOUS-IN-SITU-SPME-VP22-E-2-240730
		Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
		Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
		Sample Type	N	N	N	N
		Matrix	SPME	SPME	SPME	SPME
PCB Congeners (SPME) (ng/L)						
PCB-001	E1668C		0.00823 UJ	0.00926 UJ	0.0156 UJ	0.0119 UJ
PCB-002	E1668C		0.0029 UJ	0.00339 UJ	0.00558 UJ	0.00432 UJ
PCB-003	E1668C		0.00303 UJ	0.00355 UJ	0.00583 UJ	0.00452 UJ
PCB-004	E1668C		**0.00787 J**	**0.012 J**	**0.0187 J**	**0.0127 J**
PCB-005	E1668C		0.00301 UJ	0.00698 UJ	0.00647 UJ	0.00591 UJ
PCB-006	E1668C		**0.00199 J**	0.00491 UJ	0.00454 UJ	0.00417 UJ
PCB-007	E1668C		0.00242 UJ	0.00562 UJ	0.0052 UJ	0.00478 UJ
PCB-008	E1668C		**0.00391 J**	**0.00477 J**	**0.00771 J**	**0.00544 J**
PCB-009	E1668C		0.00218 UJ	0.00509 UJ	0.00469 UJ	0.00432 UJ
PCB-010	E1668C		0.00417 UJ	0.00437 UJ	0.00616 UJ	0.00682 UJ
PCB-011	E1668C		0.00502 UJ	0.00484 UJ	0.00752 UJ	0.00599 UJ
PCB-012/013	E1668C		0.00185 UJ	0.00436 UJ	0.00395 UJ	0.00371 UJ
PCB-014	E1668C		0.00156 UJ	0.00371 UJ	0.00331 UJ	0.00317 UJ
PCB-015	E1668C		**0.00206 J**	0.00311 UJ	0.00279 UJ	**0.00252 J**
PCB-016	E1668C		0.00275 UJ	0.00314 UJ	0.00412 UJ	0.0042 UJ
PCB-017	E1668C		**0.00514 J**	**0.00541 J**	0.00335 UJ	**0.0057 J**
PCB-018/030	E1668C		**0.00363 J**	**0.00529 J**	**0.00559 J**	**0.00453 J**
PCB-019	E1668C		**0.00877 J**	**0.00994 J**	0.0048 UJ	**0.00832 J**
PCB-020/028	E1668C		**0.00279 J**	**0.00469 J**	**0.00283 J**	**0.00397 J**
PCB-021/033	E1668C		0.0020 UJ	0.00233 UJ	0.00242 UJ	0.0027 UJ
PCB-022	E1668C		0.00148 UJ	0.00175 UJ	0.00174 UJ	0.00204 UJ
PCB-023	E1668C		0.00192 UJ	0.00227 UJ	0.00227 UJ	0.00266 UJ
PCB-024	E1668C		0.00136 UJ	0.00158 UJ	0.0020 UJ	0.00214 UJ
PCB-025	E1668C		0.00129 UJ	0.00153 UJ	0.00149 UJ	0.00181 UJ
PCB-026/029	E1668C		**0.0021 J**	**0.00333 J**	0.00184 UJ	0.00225 UJ
PCB-027	E1668C		**0.00179 J**	**0.00225 J**	0.00161 UJ	**0.00197 J**
PCB-031	E1668C		**0.00498 J**	**0.00454 J**	0.0015 UJ	**0.00387 J**
PCB-032	E1668C		**0.00149 J**	0.00115 UJ	0.00143 UJ	**0.00205 J**
PCB-034	E1668C		0.00165 UJ	0.00195 UJ	0.00188 UJ	0.0023 UJ
PCB-035	E1668C		0.000995 UJ	0.00119 UJ	0.00106 UJ	0.00142 UJ
PCB-036	E1668C		0.000834 UJ	0.000991 UJ	0.000849 UJ	0.00119 UJ
PCB-037	E1668C		**0.00118 J**	0.00103 UJ	0.000908 UJ	0.00123 UJ
PCB-038	E1668C		0.00102 UJ	0.00121 UJ	0.00112 UJ	0.00144 UJ
PCB-039	E1668C		0.000937 UJ	0.00111 UJ	0.000947 UJ	0.00134 UJ
PCB-040/071	E1668C		**0.00338 J**	**0.00392 J**	**0.00143 J**	**0.00223 J**
PCB-041	E1668C		0.000901 UJ	0.00154 UJ	0.0014 UJ	0.00195 UJ

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP22-B-4/5	VP22-C-4	VP22-D-3	VP22-E-2
	Sample ID	HOUS-IN-SITU-SPME-VP22-B-4/5-240730	HOUS-IN-SITU-SPME-VP22-C-4-240730	HOUS-IN-SITU-SPME-VP22-D-3-240730	HOUS-IN-SITU-SPME-VP22-E-2-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-042	E1668C	**0.00228 J**	**0.00281 J**	0.00109 UJ	0.00157 UJ
PCB-043	E1668C	0.000711 UJ	0.00122 UJ	0.00108 UJ	0.00155 UJ
PCB-044/047/065	E1668C	**0.104 J**	**0.12 J**	**0.0339 J**	**0.0634 J**
PCB-045	E1668C	**0.00233 J**	**0.00307 J**	0.00205 UJ	**0.00139 J**
PCB-046	E1668C	0.00127 UJ	0.00214 UJ	0.00209 UJ	0.00268 UJ
PCB-048	E1668C	0.000667 UJ	0.00114 UJ	0.000997 UJ	0.00146 UJ
PCB-049/069	E1668C	**0.262 J**	**0.111 J**	**0.0539 J**	**0.0506 J**
PCB-050/053	E1668C	**0.0185 J**	**0.03 J**	**0.00738 J**	**0.0118 J**
PCB-051	E1668C	**0.0159 J**	**0.0235 J**	**0.00405 J**	**0.0101 J**
PCB-052	E1668C	**0.131 J**	**0.0742 J**	**0.0309 J**	**0.0373 J**
PCB-054	E1668C	**0.00398 J**	**0.00604 J**	**0.00139 J**	**0.00235 J**
PCB-055	E1668C	0.00113 UJ	0.00142 UJ	0.00101 UJ	0.00173 UJ
PCB-056	E1668C	**0.00298 J**	**0.00322 J**	0.00103 UJ	**0.00206 J**
PCB-057	E1668C	0.00132 UJ	0.0016 UJ	0.0011 UJ	0.00193 UJ
PCB-058	E1668C	0.00113 UJ	0.00138 UJ	0.000949 UJ	0.00166 UJ
PCB-059/062/075	E1668C	**0.00997 J**	**0.00767 J**	**0.00206 J**	**0.00595 J**
PCB-060	E1668C	**0.00268 J**	0.00174 UJ	0.00124 UJ	0.00211 UJ
PCB-061/070/074/076	E1668C	**0.0904 J**	**0.0778 J**	**0.036 J**	**0.0512 J**
PCB-063	E1668C	**0.00521 J**	**0.00231 J**	**0.00146 J**	**0.00155 J**
PCB-064	E1668C	**0.0407 J**	**0.0322 J**	**0.0111 J**	**0.024 J**
PCB-066	E1668C	**0.0216 J**	**0.0295 J**	**0.00616 J**	**0.0223 J**
PCB-067	E1668C	0.00116 UJ	0.00139 UJ	0.000942 UJ	0.00166 UJ
PCB-068	E1668C	**0.036 J**	**0.0154 J**	**0.00674 J**	**0.0124 J**
PCB-072	E1668C	**0.0345 J**	**0.0178 J**	**0.00809 J**	**0.0152 J**
PCB-073	E1668C	**0.00778 J**	**0.00314 J**	**0.00113 J**	**0.00164 J**
PCB-077	E1668C	**0.00458 J**	**0.00729 J**	**0.00359 J**	**0.00592 J**
PCB-078	E1668C	0.00129 UJ	0.0014 UJ	0.000907 UJ	0.00165 UJ
PCB-079	E1668C	**0.00565 J**	**0.00353 J**	**0.00153 J**	**0.00172 J**
PCB-080	E1668C	0.0014 UJ	0.00137 UJ	0.00090 UJ	0.00157 UJ
PCB-081	E1668C	0.00125 UJ	**0.000929 J**	0.000876 UJ	0.00158 UJ
PCB-082	E1668C	**0.0115 J**	0.00147 UJ	**0.00369 J**	**0.00804 J**
PCB-083	E1668C	0.00131 UJ	0.00203 UJ	0.000815 UJ	**0.00806 J**
PCB-084	E1668C	**0.00722 J**	**0.0125 J**	**0.00342 J**	**0.0094 J**
PCB-085/116	E1668C	**0.2 J**	**0.186 J**	**0.121 J**	**0.155 J**
PCB-086/087/097/109/119/125	E1668C	**0.447 J**	**0.328 J**	**0.159 J**	**0.216 J**
PCB-088	E1668C	0.00113 UJ	0.00192 UJ	0.000853 UJ	0.00156 UJ
PCB-089	E1668C	0.00093 UJ	0.00159 UJ	0.000703 UJ	0.00129 UJ

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP22-B-4/5	VP22-C-4	VP22-D-3	VP22-E-2
	Sample ID	HOUS-IN-SITU-SPME-VP22-B-4/5-240730	HOUS-IN-SITU-SPME-VP22-C-4-240730	HOUS-IN-SITU-SPME-VP22-D-3-240730	HOUS-IN-SITU-SPME-VP22-E-2-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-090/101/113	E1668C	**2.282 J**	**0.978 J**	**0.502 J**	**0.408 J**
PCB-091	E1668C	**0.301 J**	**0.156 J**	**0.0607 J**	**0.105 J**
PCB-092	E1668C	**0.547 J**	**0.343 J**	**0.122 J**	**0.183 J**
PCB-093/100	E1668C	**0.0595 J**	**0.0469 J**	**0.0109 J**	**0.0302 J**
PCB-094	E1668C	**0.00705 J**	**0.00411 J**	**0.00113 J**	0.00155 UJ
PCB-095	E1668C	**0.546 J**	**0.443 J**	**0.118 J**	**0.238 J**
PCB-096	E1668C	**0.00261 J**	**0.00234 J**	0.000716 UJ	**0.00139 J**
PCB-098	E1668C	0.000885 UJ	0.00147 UJ	0.000629 UJ	0.00119 UJ
PCB-099	E1668C	**0.779 J**	**0.545 J**	**0.238 J**	**0.353 J**
PCB-102	E1668C	**0.00561 J**	**0.00452 J**	**0.00106 J**	**0.00188 J**
PCB-103	E1668C	**0.166 J**	**0.0605 J**	**0.0248 J**	**0.0309 J**
PCB-104	E1668C	**0.00212 J**	**0.00358 J**	**0.000787 J**	**0.0013 J**
PCB-105	E1668C	**0.268 J**	**0.195 J**	**0.128 J**	**0.122 J**
PCB-106	E1668C	0.000978 UJ	0.00113 UJ	0.000478 UJ	0.000833 UJ
PCB-107	E1668C	**0.116 J**	**0.0774 J**	**0.0542 J**	**0.0547 J**
PCB-108/124	E1668C	**0.0599 J**	**0.0502 J**	**0.0348 J**	**0.0311 J**
PCB-110	E1668C	**1.365 J**	**1.152 J**	**0.574 J**	**0.775 J**
PCB-111	E1668C	**0.0162 J**	0.00126 UJ	**0.00408 J**	**0.00416 J**
PCB-112	E1668C	**0.00151 J**	**0.00104 J**	0.000392 UJ	0.000764 UJ
PCB-114	E1668C	**0.0242 J**	**0.012 J**	**0.00884 J**	**0.00554 J**
PCB-115	E1668C	0.000696 UJ	0.000911 UJ	0.000363 UJ	0.000696 UJ
PCB-117	E1668C	**0.07 J**	**0.0448 J**	**0.025 J**	**0.0305 J**
PCB-118	E1668C	**0.893 J**	**0.706 J**	**0.447 J**	**0.446 J**
PCB-120	E1668C	**0.0392 J**	**0.0188 J**	**0.01 J**	**0.014 J**
PCB-121	E1668C	**0.0277 J**	**0.00649 J**	**0.00432 J**	**0.00308 J**
PCB-122	E1668C	**0.0115 J**	**0.00955 J**	**0.00658 J**	**0.00611 J**
PCB-123	E1668C	**0.0265 J**	**0.0189 J**	**0.0141 J**	**0.0121 J**
PCB-126	E1668C	0.00608 UJ	0.00466 UJ	0.00353 UJ	0.00276 UJ
PCB-127	E1668C	**0.00968 J**	**0.0072 J**	0.000692 UJ	0.000863 UJ
PCB-128/166	E1668C	**0.71 J**	**0.416 J**	**0.327 J**	**0.244 J**
PCB-129/138/163	E1668C	**6.839 J**	**4.301 J**	**2.819 J**	**2.341 J**
PCB-130	E1668C	**0.341 J**	**0.23 J**	**0.159 J**	**0.144 J**
PCB-131	E1668C	**0.0251 J**	**0.0168 J**	**0.00742 J**	**0.00788 J**
PCB-132	E1668C	**1.253 J**	**0.85 J**	**0.42 J**	**0.437 J**
PCB-133	E1668C	**0.323 J**	**0.133 J**	**0.0967 J**	**0.0667 J**
PCB-134	E1668C	**0.242 J**	**0.154 J**	**0.0646 J**	**0.0864 J**
PCB-135/151	E1668C	**6.514 J**	**2.68 J**	**1.452 J**	**1.27 J**

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP22-B-4/5	VP22-C-4	VP22-D-3	VP22-E-2
	Sample ID	HOUS-IN-SITU-SPME-VP22-B-4/5-240730	HOUS-IN-SITU-SPME-VP22-C-4-240730	HOUS-IN-SITU-SPME-VP22-D-3-240730	HOUS-IN-SITU-SPME-VP22-E-2-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-136	E1668C	**1.262 J**	**0.61 J**	**0.216 J**	**0.29 J**
PCB-137	E1668C	**0.0965 J**	**0.0921 J**	**0.0726 J**	**0.0512 J**
PCB-139/140	E1668C	**0.135 J**	**0.0679 J**	**0.0397 J**	**0.0386 J**
PCB-141	E1668C	**1.691 J**	**0.777 J**	**0.55 J**	**0.322 J**
PCB-142	E1668C	0.000793 UJ	0.000731 UJ	0.000429 UJ	0.000687 UJ
PCB-143	E1668C	0.000828 UJ	0.00071 UJ	0.000431 UJ	0.000653 UJ
PCB-144	E1668C	**0.481 J**	**0.219 J**	**0.104 J**	**0.0923 J**
PCB-145	E1668C	0.000409 UJ	0.000536 UJ	0.000285 UJ	0.00048 UJ
PCB-146	E1668C	**2.212 J**	**0.951 J**	**0.624 J**	**0.509 J**
PCB-147/149	E1668C	**9.933 J**	**4.608 J**	**2.698 J**	**2.083 J**
PCB-148	E1668C	**0.14 J**	**0.0391 J**	**0.0259 J**	**0.0166 J**
PCB-150	E1668C	**0.0659 J**	**0.0249 J**	**0.0116 J**	**0.0116 J**
PCB-152	E1668C	**0.021 J**	**0.00789 J**	**0.00401 J**	**0.00413 J**
PCB-153/168	E1668C	**12.809 J**	**5.669 J**	**4.165 J**	**2.79 J**
PCB-154	E1668C	**0.497 J**	**0.175 J**	**0.088 J**	**0.0841 J**
PCB-155	E1668C	**0.00672 J**	**0.0023 J**	**0.000865 J**	**0.000846 J**
PCB-156/157	E1668C	**0.315 J**	**0.177 J**	**0.163 J**	**0.0977 J**
PCB-158	E1668C	**0.677 J**	**0.344 J**	**0.256 J**	**0.168 J**
PCB-159	E1668C	**0.268 J**	**0.0936 J**	**0.0937 J**	**0.0405 J**
PCB-160	E1668C	0.00108 UJ	0.00070 UJ	0.000535 UJ	0.00059 UJ
PCB-161	E1668C	0.00112 UJ	0.000637 UJ	0.000555 UJ	0.000514 UJ
PCB-162	E1668C	**0.0316 J**	**0.0158 J**	**0.0158 J**	**0.00822 J**
PCB-164	E1668C	**0.687 J**	**0.343 J**	**0.28 J**	**0.169 J**
PCB-165	E1668C	0.00123 UJ	**0.0224 J**	**0.0152 J**	**0.00835 J**
PCB-167	E1668C	**0.221 J**	**0.113 J**	**0.11 J**	**0.0632 J**
PCB-169	E1668C	**0.0174 J**	**0.00901 J**	0.00523 UJ	0.0043 UJ
PCB-170	E1668C	**2.161 J**	**0.989 J**	**0.826 J**	**0.477 J**
PCB-171/173	E1668C	**0.94 J**	**0.39 J**	**0.312 J**	**0.179 J**
PCB-172	E1668C	**0.723 J**	**0.26 J**	**0.273 J**	**0.119 J**
PCB-174	E1668C	**4.626 J**	**1.685 J**	**1.474 J**	**0.735 J**
PCB-175	E1668C	**0.205 J**	**0.0676 J**	**0.0472 J**	**0.0269 J**
PCB-176	E1668C	**0.557 J**	**0.244 J**	**0.134 J**	**0.101 J**
PCB-177	E1668C	**2.553 J**	**0.961 J**	**0.825 J**	**0.442 J**
PCB-178	E1668C	**2.28 J**	**0.726 J**	**0.695 J**	**0.312 J**
PCB-179	E1668C	**2.756 J**	**1.044 J**	**0.7 J**	**0.451 J**
PCB-180/193	E1668C	**7.791 J**	**2.738 J**	**2.589 J**	**1.142 J**
PCB-181	E1668C	**0.0187 J**	**0.00752 J**	**0.00822 J**	**0.00365 J**

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP22-B-4/5	VP22-C-4	VP22-D-3	VP22-E-2
	Sample ID	HOUS-IN-SITU-SPME-VP22-B-4/5-240730	HOUS-IN-SITU-SPME-VP22-C-4-240730	HOUS-IN-SITU-SPME-VP22-D-3-240730	HOUS-IN-SITU-SPME-VP22-E-2-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-182	E1668C	**0.0419 J**	**0.0123 J**	0.00248 UJ	**0.0059 J**
PCB-183	E1668C	**2.609 J**	**0.857 J**	**0.692 J**	**0.364 J**
PCB-184	E1668C	**0.00331 J**	**0.0013 J**	0.000482 UJ	0.000468 UJ
PCB-185	E1668C	**0.878 J**	**0.246 J**	**0.261 J**	**0.106 J**
PCB-186	E1668C	0.000589 UJ	0.000383 UJ	0.000348 UJ	0.000395 UJ
PCB-187	E1668C	**8.674 J**	**2.579 J**	**2.343 J**	**1.16 J**
PCB-188	E1668C	**0.0267 J**	**0.00755 J**	**0.00606 J**	**0.00276 J**
PCB-189	E1668C	**0.0995 J**	**0.0413 J**	**0.0449 J**	**0.0163 J**
PCB-190	E1668C	**0.803 J**	**0.289 J**	**0.296 J**	**0.132 J**
PCB-191	E1668C	**0.156 J**	**0.0559 J**	**0.0506 J**	**0.0221 J**
PCB-192	E1668C	0.0086 UJ	0.00268 UJ	0.00389 UJ	0.00165 UJ
PCB-194	E1668C	**1.447 J**	**0.457 J**	**0.506 J**	**0.176 J**
PCB-195	E1668C	**0.764 J**	**0.235 J**	**0.27 J**	**0.0971 J**
PCB-196	E1668C	**1.119 J**	**0.345 J**	**0.356 J**	**0.13 J**
PCB-197	E1668C	**0.0961 J**	**0.0299 J**	**0.0263 J**	**0.0125 J**
PCB-198/199	E1668C	**3.237 J**	**0.917 J**	**1.253 J**	**0.38 J**
PCB-200	E1668C	**0.481 J**	**0.141 J**	**0.154 J**	**0.0578 J**
PCB-201	E1668C	**0.692 J**	**0.148 J**	**0.174 J**	**0.0517 J**
PCB-202	E1668C	**0.838 J**	**0.209 J**	**0.265 J**	**0.0826 J**
PCB-203	E1668C	**1.852 J**	**0.517 J**	**0.711 J**	**0.208 J**
PCB-204	E1668C	0.00127 UJ	0.000629 UJ	0.000681 UJ	0.000644 UJ
PCB-205	E1668C	**0.136 J**	**0.039 J**	**0.0482 J**	**0.0149 J**
PCB-206	E1668C	**0.591 J**	**0.139 J**	**0.255 J**	**0.0525 J**
PCB-207	E1668C	**0.0813 J**	**0.0197 J**	**0.0272 J**	**0.0069 J**
PCB-208	E1668C	**0.137 J**	**0.0347 J**	**0.0663 J**	**0.0147 J**
PCB-209	E1668C	**0.0176 J**	**0.00705 J**	**0.0198 J**	**0.00462 J**
Total PCB Congener (U = 0 max limit)		**110 J**	**46 J**	**34 J**	**22 J**

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP22-F/G-3/4	VP22-H-2	VP22-H-3/4	VP22-I-3
	Sample ID	HOUS-IN-SITU-SPME-VP22-F/G-3/4-240730	HOUS-IN-SITU-SPME-VP22-H-2-240730	HOUS-IN-SITU-SPME-VP22-H-3/4-240730	HOUS-IN-SITU-SPME-VP22-I-3-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB Congeners (SPME) (ng/L)					
PCB-001	E1668C	0.0117 UJ	0.0092 UJ	0.0148 UJ	**0.0175 J**
PCB-002	E1668C	0.00433 UJ	0.00356 UJ	0.00569 UJ	0.00403 UJ
PCB-003	E1668C	0.00452 UJ	0.00356 UJ	0.00569 UJ	0.00403 UJ
PCB-004	E1668C	**0.0112 J**	**0.0201 J**	**0.0135 J**	**0.0315 J**
PCB-005	E1668C	0.00428 UJ	0.00468 UJ	0.00672 UJ	0.00609 UJ
PCB-006	E1668C	0.00299 UJ	0.00326 UJ	0.00464 UJ	**0.00542 J**
PCB-007	E1668C	0.00342 UJ	0.00369 UJ	0.00526 UJ	0.00481 UJ
PCB-008	E1668C	**0.00455 J**	**0.00747 J**	0.00436 UJ	**0.0162 J**
PCB-009	E1668C	0.0031 UJ	0.00334 UJ	0.00477 UJ	0.00434 UJ
PCB-010	E1668C	0.00543 UJ	0.0046 UJ	0.00595 UJ	0.00816 UJ
PCB-011	E1668C	0.00337 UJ	0.00736 UJ	0.00657 UJ	0.00706 UJ
PCB-012/013	E1668C	0.0026 UJ	0.00295 UJ	0.00414 UJ	0.0038 UJ
PCB-014	E1668C	0.00219 UJ	0.00249 UJ	0.00347 UJ	0.00318 UJ
PCB-015	E1668C	0.00184 UJ	**0.00314 J**	0.00287 UJ	**0.0038 J**
PCB-016	E1668C	0.0033 UJ	0.00353 UJ	0.00497 UJ	0.00411 UJ
PCB-017	E1668C	0.00268 UJ	**0.00509 J**	0.00425 UJ	**0.0128 J**
PCB-018/030	E1668C	**0.00274 J**	**0.00722 J**	**0.00461 J**	**0.0135 J**
PCB-019	E1668C	0.00385 UJ	**0.0125 J**	0.00581 UJ	**0.0169 J**
PCB-020/028	E1668C	0.00199 UJ	**0.00698 J**	**0.00408 J**	**0.00914 J**
PCB-021/033	E1668C	0.00245 UJ	**0.00347 J**	0.00259 UJ	**0.00582 J**
PCB-022	E1668C	0.00177 UJ	0.00207 UJ	0.00193 UJ	**0.00209 J**
PCB-023	E1668C	0.00231 UJ	0.00265 UJ	0.00246 UJ	0.00246 UJ
PCB-024	E1668C	0.00161 UJ	0.00178 UJ	0.00244 UJ	0.00204 UJ
PCB-025	E1668C	0.00152 UJ	0.00188 UJ	0.00169 UJ	**0.00307 J**
PCB-026/029	E1668C	0.00187 UJ	**0.00347 J**	**0.00239 J**	**0.00513 J**
PCB-027	E1668C	0.00129 UJ	**0.003 J**	0.00212 UJ	**0.00418 J**
PCB-031	E1668C	**0.00184 J**	**0.00698 J**	**0.00606 J**	**0.0112 J**
PCB-032	E1668C	0.00115 UJ	**0.00194 J**	0.00189 UJ	**0.00388 J**
PCB-034	E1668C	0.00193 UJ	0.00234 UJ	0.00212 UJ	0.00211 UJ
PCB-035	E1668C	0.00111 UJ	0.00155 UJ	0.00133 UJ	0.00136 UJ
PCB-036	E1668C	0.000914 UJ	0.00138 UJ	0.00116 UJ	0.00119 UJ
PCB-037	E1668C	0.000959 UJ	**0.00287 J**	0.00114 UJ	**0.00284 J**
PCB-038	E1668C	0.00116 UJ	0.00158 UJ	0.00139 UJ	0.0014 UJ
PCB-039	E1668C	0.00103 UJ	0.00149 UJ	0.00125 UJ	0.00128 UJ
PCB-040/071	E1668C	**0.00222 J**	**0.00651 J**	**0.00356 J**	**0.00796 J**
PCB-041	E1668C	0.00152 UJ	0.00174 UJ	0.00143 UJ	0.0015 UJ

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP22-F/G-3/4	VP22-H-2	VP22-H-3/4	VP22-I-3
	Sample ID	HOUS-IN-SITU-SPME-VP22-F/G-3/4-240730	HOUS-IN-SITU-SPME-VP22-H-2-240730	HOUS-IN-SITU-SPME-VP22-H-3/4-240730	HOUS-IN-SITU-SPME-VP22-I-3-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-042	E1668C	**0.00143 J**	**0.00617 J**	**0.0026 J**	**0.00504 J**
PCB-043	E1668C	0.00119 UJ	0.00137 UJ	0.00111 UJ	0.00117 UJ
PCB-044/047/065	E1668C	**0.0366 J**	**0.126 J**	**0.0656 J**	**0.142 J**
PCB-045	E1668C	0.00219 UJ	0.00227 UJ	**0.000968 J**	0.00202 UJ
PCB-046	E1668C	0.00224 UJ	0.00224 UJ	0.00192 UJ	0.0020 UJ
PCB-048	E1668C	0.0011 UJ	0.0013 UJ	0.00104 UJ	**0.00138 J**
PCB-049/069	E1668C	**0.0561 J**	**0.182 J**	**0.121 J**	**0.21 J**
PCB-050/053	E1668C	**0.00834 J**	**0.0261 J**	**0.0118 J**	**0.0387 J**
PCB-051	E1668C	**0.00796 J**	**0.0225 J**	**0.00749 J**	**0.0341 J**
PCB-052	E1668C	**0.0446 J**	**0.153 J**	**0.0887 J**	**0.185 J**
PCB-054	E1668C	**0.00146 J**	**0.00532 J**	**0.00244 J**	**0.00734 J**
PCB-055	E1668C	0.00145 UJ	0.00259 UJ	0.00149 UJ	0.00251 UJ
PCB-056	E1668C	0.00148 UJ	**0.0087 J**	**0.00505 J**	**0.00798 J**
PCB-057	E1668C	0.00173 UJ	0.00299 UJ	0.00169 UJ	0.00289 UJ
PCB-058	E1668C	0.00149 UJ	0.00254 UJ	0.00143 UJ	0.00245 UJ
PCB-059/062/075	E1668C	**0.00161 J**	**0.0149 J**	**0.0117 J**	**0.0152 J**
PCB-060	E1668C	0.00178 UJ	0.00314 UJ	**0.00368 J**	0.00304 UJ
PCB-061/070/074/076	E1668C	**0.0359 J**	**0.18 J**	**0.117 J**	**0.158 J**
PCB-063	E1668C	**0.00211 J**	**0.00297 J**	**0.00541 J**	**0.00349 J**
PCB-064	E1668C	**0.00843 J**	**0.0769 J**	**0.0537 J**	**0.0614 J**
PCB-066	E1668C	**0.00442 J**	**0.0941 J**	**0.0463 J**	**0.0754 J**
PCB-067	E1668C	0.00156 UJ	0.00262 UJ	0.00147 UJ	0.00252 UJ
PCB-068	E1668C	**0.0136 J**	**0.0249 J**	**0.0266 J**	**0.022 J**
PCB-072	E1668C	**0.0167 J**	**0.0363 J**	**0.0383 J**	**0.0286 J**
PCB-073	E1668C	**0.00132 J**	**0.00336 J**	**0.00365 J**	**0.00424 J**
PCB-077	E1668C	**0.00573 J**	**0.015 J**	**0.0126 J**	**0.0135 J**
PCB-078	E1668C	0.0020 UJ	0.00284 UJ	0.00154 UJ	0.00272 UJ
PCB-079	E1668C	**0.00366 J**	**0.014 J**	**0.00549 J**	**0.00754 J**
PCB-080	E1668C	0.00258 UJ	0.00281 UJ	0.00149 UJ	0.0027 UJ
PCB-081	E1668C	0.00196 UJ	0.00272 UJ	0.00147 UJ	0.00261 UJ
PCB-082	E1668C	**0.00666 J**	**0.103 J**	**0.0166 J**	**0.0307 J**
PCB-083	E1668C	0.00176 UJ	**0.0654 J**	0.00209 UJ	0.00368 UJ
PCB-084	E1668C	**0.00497 J**	**0.233 J**	**0.0119 J**	**0.0346 J**
PCB-085/116	E1668C	**0.209 J**	**0.597 J**	**0.369 J**	**0.361 J**
PCB-086/087/097/109/119/125	E1668C	**0.255 J**	**1.496 J**	**0.589 J**	**0.764 J**
PCB-088	E1668C	0.00135 UJ	0.0155 UJ	0.00193 UJ	0.00326 UJ
PCB-089	E1668C	0.00112 UJ	0.0131 UJ	0.00163 UJ	0.00276 UJ

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP22-F/G-3/4	VP22-H-2	VP22-H-3/4	VP22-I-3
	Sample ID	HOUS-IN-SITU-SPME-VP22-F/G-3/4-240730	HOUS-IN-SITU-SPME-VP22-H-2-240730	HOUS-IN-SITU-SPME-VP22-H-3/4-240730	HOUS-IN-SITU-SPME-VP22-I-3-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-090/101/113	E1668C	**1.151 J**	**3.352 J**	**1.919 J**	**2.486 J**
PCB-091	E1668C	**0.061 J**	**0.61 J**	**0.234 J**	**0.32 J**
PCB-092	E1668C	**0.253 J**	**1.239 J**	**0.691 J**	**0.735 J**
PCB-093/100	E1668C	**0.00942 J**	**0.0677 J**	**0.031 J**	**0.0623 J**
PCB-094	E1668C	**0.00131 J**	**0.00806 J**	**0.0031 J**	**0.00593 J**
PCB-095	E1668C	**0.123 J**	**3.105 J**	**0.568 J**	**1.113 J**
PCB-096	E1668C	**0.00098 J**	**0.012 J**	**0.00195 J**	**0.00484 J**
PCB-098	E1668C	0.00108 UJ	0.0128 UJ	0.00155 UJ	0.00265 UJ
PCB-099	E1668C	**0.384 J**	**1.831 J**	**0.985 J**	**1.156 J**
PCB-102	E1668C	**0.00177 J**	**0.0256 J**	**0.00449 J**	**0.0116 J**
PCB-103	E1668C	**0.0319 J**	**0.109 J**	**0.107 J**	**0.096 J**
PCB-104	E1668C	0.000507 UJ	**0.00212 J**	**0.00158 J**	**0.00339 J**
PCB-105	E1668C	**0.605 J**	**0.407 J**	**0.293 J**	**0.293 J**
PCB-106	E1668C	0.00218 UJ	0.0109 UJ	0.00121 UJ	0.00229 UJ
PCB-107	E1668C	**0.272 J**	**0.173 J**	**0.144 J**	**0.134 J**
PCB-108/124	E1668C	**0.178 J**	**0.143 J**	**0.0875 J**	**0.0948 J**
PCB-110	E1668C	**1.567 J**	**4.93 J**	**2.173 J**	**2.522 J**
PCB-111	E1668C	**0.0203 J**	0.0124 UJ	**0.0121 J**	**0.00853 J**
PCB-112	E1668C	**0.000867 J**	0.00918 UJ	**0.00192 J**	0.0019 UJ
PCB-114	E1668C	**0.0331 J**	**0.0214 J**	**0.0169 J**	**0.0173 J**
PCB-115	E1668C	0.00124 UJ	0.00864 UJ	0.000968 UJ	0.0018 UJ
PCB-117	E1668C	**0.0809 J**	**0.106 J**	**0.0927 J**	**0.0659 J**
PCB-118	E1668C	**2.094 J**	**1.722 J**	**1.12 J**	**1.318 J**
PCB-120	E1668C	**0.0573 J**	**0.0411 J**	**0.0392 J**	**0.031 J**
PCB-121	E1668C	**0.0165 J**	0.0109 UJ	**0.00893 J**	**0.00579 J**
PCB-122	E1668C	**0.0295 J**	**0.027 J**	**0.017 J**	**0.0177 J**
PCB-123	E1668C	**0.0654 J**	**0.0421 J**	**0.0297 J**	**0.0307 J**
PCB-126	E1668C	0.019 UJ	**0.0108 J**	**0.00752 J**	0.00738 UJ
PCB-127	E1668C	0.00528 UJ	0.0138 UJ	**0.0129 J**	**0.0109 J**
PCB-128/166	E1668C	**2.362 J**	**1.15 J**	**0.66 J**	**0.683 J**
PCB-129/138/163	E1668C	**14.45 J**	**7.446 J**	**6.476 J**	**6.276 J**
PCB-130	E1668C	**0.872 J**	**0.576 J**	**0.394 J**	**0.368 J**
PCB-131	E1668C	0.00136 UJ	**0.0769 J**	**0.0248 J**	**0.0364 J**
PCB-132	E1668C	**1.385 J**	**2.768 J**	**1.425 J**	**1.42 J**
PCB-133	E1668C	**0.594 J**	**0.245 J**	**0.214 J**	**0.169 J**
PCB-134	E1668C	**0.173 J**	**0.492 J**	**0.258 J**	**0.259 J**
PCB-135/151	E1668C	**5.811 J**	**5.731 J**	**4.902 J**	**3.659 J**

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP22-F/G-3/4	VP22-H-2	VP22-H-3/4	VP22-I-3
	Sample ID	HOUS-IN-SITU-SPME-VP22-F/G-3/4-240730	HOUS-IN-SITU-SPME-VP22-H-2-240730	HOUS-IN-SITU-SPME-VP22-H-3/4-240730	HOUS-IN-SITU-SPME-VP22-I-3-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-136	E1668C	**0.75 J**	**2.122 J**	**0.993 J**	**1.082 J**
PCB-137	E1668C	**0.385 J**	**0.266 J**	**0.164 J**	**0.152 J**
PCB-139/140	E1668C	**0.159 J**	**0.163 J**	**0.128 J**	**0.104 J**
PCB-141	E1668C	**3.079 J**	**2.11 J**	**1.3 J**	**1.277 J**
PCB-142	E1668C	0.00113 UJ	0.000783 UJ	0.000866 UJ	0.00104 UJ
PCB-143	E1668C	0.00136 UJ	0.000777 UJ	0.000851 UJ	0.00104 UJ
PCB-144	E1668C	**0.408 J**	**0.588 J**	**0.37 J**	**0.35 J**
PCB-145	E1668C	0.000477 UJ	0.000474 UJ	0.00051 UJ	0.000608 UJ
PCB-146	E1668C	**3.91 J**	**1.982 J**	**1.541 J**	**1.322 J**
PCB-147/149	E1668C	**10.205 J**	**10.767 J**	**8.021 J**	**6.9 J**
PCB-148	E1668C	**0.127 J**	**0.048 J**	**0.0617 J**	**0.0379 J**
PCB-150	E1668C	**0.0229 J**	**0.0327 J**	**0.0332 J**	**0.0255 J**
PCB-152	E1668C	**0.0049 J**	**0.0103 J**	**0.0116 J**	**0.00899 J**
PCB-153/168	E1668C	**27.793 J**	**12.071 J**	**8.857 J**	**8.223 J**
PCB-154	E1668C	**0.366 J**	**0.272 J**	**0.276 J**	**0.199 J**
PCB-155	E1668C	**0.00401 J**	**0.00184 J**	**0.002 J**	**0.00197 J**
PCB-156/157	E1668C	**1.777 J**	**0.446 J**	**0.233 J**	**0.296 J**
PCB-158	E1668C	**2.075 J**	**0.851 J**	**0.492 J**	**0.55 J**
PCB-159	E1668C	**1.032 J**	**0.201 J**	**0.133 J**	**0.134 J**
PCB-160	E1668C	0.00296 UJ	0.000719 UJ	0.000768 UJ	0.000999 UJ
PCB-161	E1668C	0.00386 UJ	0.000733 UJ	0.000781 UJ	0.00104 UJ
PCB-162	E1668C	**0.172 J**	**0.0417 J**	**0.0234 J**	**0.0248 J**
PCB-164	E1668C	**2.342 J**	**0.685 J**	**0.507 J**	**0.518 J**
PCB-165	E1668C	0.00406 UJ	**0.0301 J**	**0.0222 J**	**0.0208 J**
PCB-167	E1668C	**1.31 J**	**0.305 J**	**0.157 J**	**0.194 J**
PCB-169	E1668C	**0.0502 J**	**0.0189 J**	**0.0103 J**	**0.0116 J**
PCB-170	E1668C	**10.671 J**	**2.403 J**	**1.167 J**	**1.433 J**
PCB-171/173	E1668C	**2.926 J**	**0.937 J**	**0.56 J**	**0.593 J**
PCB-172	E1668C	**3.446 J**	**0.595 J**	**0.348 J**	**0.39 J**
PCB-174	E1668C	**13.57 J**	**3.74 J**	**2.505 J**	**2.377 J**
PCB-175	E1668C	**0.447 J**	**0.164 J**	**0.108 J**	**0.0988 J**
PCB-176	E1668C	**0.67 J**	**0.509 J**	**0.405 J**	**0.343 J**
PCB-177	E1668C	**7.455 J**	**2.031 J**	**1.387 J**	**1.341 J**
PCB-178	E1668C	**6.648 J**	**1.13 J**	**1.016 J**	**0.918 J**
PCB-179	E1668C	**3.503 J**	**1.784 J**	**1.763 J**	**1.295 J**
PCB-180/193	E1668C	**34.755 J**	**6.479 J**	**3.382 J**	**3.995 J**
PCB-181	E1668C	**0.0737 J**	**0.0194 J**	**0.0125 J**	**0.0137 J**

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP22-F/G-3/4	VP22-H-2	VP22-H-3/4	VP22-I-3
	Sample ID	HOUS-IN-SITU-SPME-VP22-F/G-3/4-240730	HOUS-IN-SITU-SPME-VP22-H-2-240730	HOUS-IN-SITU-SPME-VP22-H-3/4-240730	HOUS-IN-SITU-SPME-VP22-I-3-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-182	E1668C	**0.125 J**	**0.0242 J**	**0.02 J**	**0.0152 J**
PCB-183	E1668C	**6.969 J**	**2.018 J**	**1.314 J**	**1.312 J**
PCB-184	E1668C	0.00199 UJ	**0.00194 J**	**0.00201 J**	0.00102 UJ
PCB-185	E1668C	**2.319 J**	**0.585 J**	**0.37 J**	**0.396 J**
PCB-186	E1668C	0.00109 UJ	0.000738 UJ	0.00055 UJ	0.000796 UJ
PCB-187	E1668C	**22.291 J**	**5.201 J**	**3.927 J**	**3.677 J**
PCB-188	E1668C	**0.0346 J**	**0.0069 J**	**0.00905 J**	**0.00624 J**
PCB-189	E1668C	**1.097 J**	**0.0985 J**	**0.0435 J**	**0.0659 J**
PCB-190	E1668C	**4.852 J**	**0.612 J**	**0.324 J**	**0.386 J**
PCB-191	E1668C	**0.931 J**	**0.142 J**	**0.0648 J**	**0.0928 J**
PCB-192	E1668C	0.0635 UJ	0.00603 UJ	0.00393 UJ	0.0046 UJ
PCB-194	E1668C	**14.774 J**	**1.089 J**	**0.477 J**	**0.717 J**
PCB-195	E1668C	**5.174 J**	**0.52 J**	**0.282 J**	**0.362 J**
PCB-196	E1668C	**7.793 J**	**0.739 J**	**0.385 J**	**0.511 J**
PCB-197	E1668C	**0.351 J**	**0.0651 J**	**0.0432 J**	**0.0431 J**
PCB-198/199	E1668C	**24.808 J**	**1.715 J**	**1.07 J**	**1.245 J**
PCB-200	E1668C	**1.809 J**	**0.255 J**	**0.198 J**	**0.188 J**
PCB-201	E1668C	**3.22 J**	**0.312 J**	**0.228 J**	**0.233 J**
PCB-202	E1668C	**3.247 J**	**0.344 J**	**0.322 J**	**0.285 J**
PCB-203	E1668C	**14.64 J**	**0.982 J**	**0.6 J**	**0.737 J**
PCB-204	E1668C	0.00786 UJ	0.00149 UJ	0.000767 UJ	0.00116 UJ
PCB-205	E1668C	**1.914 J**	**0.0823 J**	**0.0347 J**	**0.06 J**
PCB-206	E1668C	**10.651 J**	**0.307 J**	**0.223 J**	**0.258 J**
PCB-207	E1668C	**0.644 J**	**0.0265 J**	**0.0305 J**	**0.0324 J**
PCB-208	E1668C	**1.441 J**	**0.0771 J**	**0.0688 J**	**0.0647 J**
PCB-209	E1668C	**0.608 J**	**0.0237 J**	**0.0167 J**	**0.0206 J**
Total PCB Congener (U = 0 max limit)		**300 J**	**110 J**	**71 J**	**71 J**

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

Location ID		VP22-I-3	VP27-E/F-6	VP27-F-4	VP9-FL000954
Sample ID		HOUS-IN-SITU-SPME-VP22-I-3-FD-240730	HOUS-IN-SITU-SPME-VP27-E/F-6-240730	HOUS-IN-SITU-SPME-VP27-F-4-240730	HOUS-IN-SITU-SPME-VP9-FL000954-240730
Sample Date		7/30/2024	7/30/2024	7/30/2024	7/30/2024
Depth		0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
Sample Type		FD	N	N	N
Matrix		SPME	SPME	SPME	SPME
PCB Congeners (SPME) (ng/L)					
PCB-001	E1668C	0.0138 UJ	0.0155 UJ	0.0116 UJ	0.0142 UJ
PCB-002	E1668C	0.00495 UJ	0.00555 UJ	0.00416 UJ	0.00487 UJ
PCB-003	E1668C	0.00495 UJ	0.00577 UJ	0.00431 UJ	0.00508 UJ
PCB-004	E1668C	**0.0295 J**	**0.0166 J**	**0.0101 J**	0.00944 UJ
PCB-005	E1668C	0.00632 UJ	0.00426 UJ	0.00658 UJ	0.00464 UJ
PCB-006	E1668C	0.00435 UJ	0.00299 UJ	0.00463 UJ	0.00324 UJ
PCB-007	E1668C	0.00493 UJ	0.00341 UJ	0.00526 UJ	0.00371 UJ
PCB-008	E1668C	**0.0126 J**	**0.00558 J**	**0.00761 J**	**0.00527 J**
PCB-009	E1668C	0.00447 UJ	0.00309 UJ	**0.00372 J**	0.00335 UJ
PCB-010	E1668C	0.00476 UJ	0.00436 UJ	0.0043 UJ	0.00747 UJ
PCB-011	E1668C	0.00589 UJ	0.00634 UJ	0.00791 UJ	0.00698 UJ
PCB-012/013	E1668C	0.00386 UJ	0.00265 UJ	0.00414 UJ	0.00282 UJ
PCB-014	E1668C	0.00322 UJ	0.0022 UJ	0.00345 UJ	0.00237 UJ
PCB-015	E1668C	**0.00365 J**	0.00184 UJ	0.00289 UJ	0.0020 UJ
PCB-016	E1668C	0.00493 UJ	0.00419 UJ	0.00446 UJ	0.00371 UJ
PCB-017	E1668C	**0.0101 J**	**0.0204 J**	0.00376 UJ	**0.00501 J**
PCB-018/030	E1668C	**0.0102 J**	**0.00673 J**	**0.00462 J**	**0.00579 J**
PCB-019	E1668C	**0.0121 J**	**0.00982 J**	0.00541 UJ	0.00432 UJ
PCB-020/028	E1668C	**0.00673 J**	**0.00384 J**	**0.00344 J**	**0.00408 J**
PCB-021/033	E1668C	**0.00301 J**	0.00283 UJ	0.00254 UJ	0.00218 UJ
PCB-022	E1668C	0.00207 UJ	0.00204 UJ	0.00185 UJ	0.00159 UJ
PCB-023	E1668C	0.00265 UJ	0.00265 UJ	0.0024 UJ	0.00207 UJ
PCB-024	E1668C	0.0024 UJ	0.00196 UJ	0.00212 UJ	0.00181 UJ
PCB-025	E1668C	0.00179 UJ	0.00176 UJ	0.0016 UJ	0.00137 UJ
PCB-026/029	E1668C	**0.00384 J**	**0.00656 J**	**0.00278 J**	**0.00339 J**
PCB-027	E1668C	**0.00309 J**	**0.00339 J**	0.00182 UJ	0.00146 UJ
PCB-031	E1668C	**0.00596 J**	**0.00857 J**	**0.00782 J**	**0.00859 J**
PCB-032	E1668C	**0.00271 J**	**0.00308 J**	0.00162 UJ	0.0013 UJ
PCB-034	E1668C	0.00223 UJ	0.00221 UJ	0.00202 UJ	0.00174 UJ
PCB-035	E1668C	0.00134 UJ	0.00135 UJ	0.00124 UJ	0.00103 UJ
PCB-036	E1668C	0.00115 UJ	0.00118 UJ	0.00108 UJ	0.000852 UJ
PCB-037	E1668C	**0.00178 J**	**0.00169 J**	0.00107 UJ	**0.00374 J**
PCB-038	E1668C	0.00143 UJ	0.00143 UJ	0.00132 UJ	0.00106 UJ
PCB-039	E1668C	0.00122 UJ	0.00127 UJ	0.00117 UJ	0.000958 UJ
PCB-040/071	E1668C	**0.00503 J**	**0.00929 J**	**0.00347 J**	**0.03 J**
PCB-041	E1668C	0.00171 UJ	0.00123 UJ	0.0015 UJ	0.00127 UJ

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP22-I-3	VP27-E/F-6	VP27-F-4	VP9-FL000954
	Sample ID	HOUS-IN-SITU-SPME-VP22-I-3-FD-240730	HOUS-IN-SITU-SPME-VP27-E/F-6-240730	HOUS-IN-SITU-SPME-VP27-F-4-240730	HOUS-IN-SITU-SPME-VP9-FL000954-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	FD	N	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-042	E1668C	**0.00322 J**	**0.00573 J**	**0.00331 J**	**0.0222 J**
PCB-043	E1668C	0.0013 UJ	0.00104 UJ	0.00128 UJ	0.000992 UJ
PCB-044/047/065	E1668C	**0.136 J**	**0.186 J**	**0.101 J**	**0.228 J**
PCB-045	E1668C	0.00239 UJ	**0.00226 J**	**0.00132 J**	**0.00942 J**
PCB-046	E1668C	0.00237 UJ	0.00196 UJ	0.00233 UJ	0.00183 UJ
PCB-048	E1668C	0.0012 UJ	**0.00216 J**	0.00123 UJ	**0.0027 J**
PCB-049/069	E1668C	**0.191 J**	**0.813 J**	**0.385 J**	**0.548 J**
PCB-050/053	E1668C	**0.0259 J**	**0.028 J**	**0.0141 J**	**0.0533 J**
PCB-051	E1668C	**0.0206 J**	**0.0162 J**	**0.00661 J**	**0.0072 J**
PCB-052	E1668C	**0.137 J**	**0.831 J**	**0.346 J**	**1.707 J**
PCB-054	E1668C	**0.00417 J**	**0.00334 J**	**0.00247 J**	**0.00212 J**
PCB-055	E1668C	0.00165 UJ	0.00199 UJ	0.00202 UJ	0.0030 UJ
PCB-056	E1668C	**0.00443 J**	**0.00567 J**	**0.00433 J**	**0.018 J**
PCB-057	E1668C	0.00183 UJ	0.00248 UJ	0.0024 UJ	0.00359 UJ
PCB-058	E1668C	0.00156 UJ	0.00215 UJ	0.00208 UJ	0.0031 UJ
PCB-059/062/075	E1668C	**0.0159 J**	**0.0247 J**	**0.0141 J**	**0.0202 J**
PCB-060	E1668C	**0.00188 J**	**0.00479 J**	**0.00502 J**	**0.00702 J**
PCB-061/070/074/076	E1668C	**0.106 J**	**0.205 J**	**0.142 J**	**0.509 J**
PCB-063	E1668C	**0.00236 J**	**0.00854 J**	**0.00682 J**	**0.00521 J**
PCB-064	E1668C	**0.0514 J**	**0.0815 J**	**0.0629 J**	**0.159 J**
PCB-066	E1668C	**0.0442 J**	**0.0331 J**	**0.0223 J**	**0.209 J**
PCB-067	E1668C	0.00156 UJ	**0.00357 J**	0.00207 UJ	0.00324 UJ
PCB-068	E1668C	**0.0163 J**	**0.0654 J**	**0.0337 J**	**0.016 J**
PCB-072	E1668C	**0.0242 J**	**0.0772 J**	**0.0371 J**	**0.0316 J**
PCB-073	E1668C	**0.00435 J**	**0.0288 J**	**0.0117 J**	**0.00394 J**
PCB-077	E1668C	**0.0076 J**	**0.0136 J**	**0.00879 J**	**0.0174 J**
PCB-078	E1668C	0.00153 UJ	0.00297 UJ	0.00229 UJ	0.0041 UJ
PCB-079	E1668C	**0.00499 J**	**0.0208 J**	**0.00664 J**	**0.0571 J**
PCB-080	E1668C	0.0014 UJ	0.0039 UJ	0.00252 UJ	0.00511 UJ
PCB-081	E1668C	0.00146 UJ	0.00289 UJ	0.00222 UJ	0.00402 UJ
PCB-082	E1668C	**0.0218 J**	**0.0409 J**	**0.0206 J**	**0.273 J**
PCB-083	E1668C	0.00183 UJ	**0.0386 J**	**0.0183 J**	**0.105 J**
PCB-084	E1668C	**0.0257 J**	**0.026 J**	**0.0163 J**	**1 J**
PCB-085/116	E1668C	**0.25 J**	**0.728 J**	**0.371 J**	**1.58 J**
PCB-086/087/097/109/119/125	E1668C	**0.547 J**	**1.478 J**	**0.738 J**	**3.997 J**
PCB-088	E1668C	0.00183 UJ	0.0028 UJ	0.00294 UJ	0.00333 UJ
PCB-089	E1668C	0.00155 UJ	0.00257 UJ	0.00269 UJ	**0.0205 J**

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP22-I-3	VP27-E/F-6	VP27-F-4	VP9-FL000954
	Sample ID	HOUS-IN-SITU-SPME-VP22-I-3-FD-240730	HOUS-IN-SITU-SPME-VP27-E/F-6-240730	HOUS-IN-SITU-SPME-VP27-F-4-240730	HOUS-IN-SITU-SPME-VP9-FL000954-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	FD	N	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-090/101/113	E1668C	**1.599 J**	**10.877 J**	**3.651 J**	**16.27 J**
PCB-091	E1668C	**0.269 J**	**0.907 J**	**0.417 J**	**1.207 J**
PCB-092	E1668C	**0.542 J**	**2.8 J**	**1.018 J**	**3.093 J**
PCB-093/100	E1668C	**0.0666 J**	**0.159 J**	**0.0696 J**	**0.0617 J**
PCB-094	E1668C	**0.00579 J**	**0.0442 J**	**0.0175 J**	**0.0232 J**
PCB-095	E1668C	**0.923 J**	**2.669 J**	**1.336 J**	**10.935 J**
PCB-096	E1668C	**0.00419 J**	**0.00564 J**	**0.00353 J**	**0.0492 J**
PCB-098	E1668C	0.00143 UJ	**0.00275 J**	0.00289 UJ	0.00268 UJ
PCB-099	E1668C	**0.813 J**	**3.312 J**	**1.323 J**	**5.212 J**
PCB-102	E1668C	**0.00687 J**	**0.0286 J**	**0.00739 J**	**0.136 J**
PCB-103	E1668C	**0.0928 J**	**0.478 J**	**0.192 J**	**0.144 J**
PCB-104	E1668C	**0.00359 J**	**0.00717 J**	**0.0022 J**	**0.00111 J**
PCB-105	E1668C	**0.152 J**	**1.02 J**	**0.418 J**	**1.365 J**
PCB-106	E1668C	0.000905 UJ	0.00515 UJ	0.00262 UJ	0.00491 UJ
PCB-107	E1668C	**0.0672 J**	**0.566 J**	**0.181 J**	**0.562 J**
PCB-108/124	E1668C	**0.0487 J**	**0.36 J**	**0.11 J**	**0.617 J**
PCB-110	E1668C	**1.539 J**	**6.792 J**	**2.574 J**	**15.272 J**
PCB-111	E1668C	**0.00434 J**	**0.0875 J**	**0.0205 J**	**0.0394 J**
PCB-112	E1668C	**0.00126 J**	**0.00616 J**	**0.00206 J**	0.00295 UJ
PCB-114	E1668C	**0.00763 J**	**0.0998 J**	**0.0351 J**	**0.0765 J**
PCB-115	E1668C	0.00077 UJ	0.00316 UJ	0.0020 UJ	0.00293 UJ
PCB-117	E1668C	**0.0466 J**	**0.213 J**	**0.0906 J**	**0.235 J**
PCB-118	E1668C	**0.621 J**	**4.571 J**	**1.518 J**	**7.532 J**
PCB-120	E1668C	**0.0163 J**	**0.217 J**	**0.0485 J**	**0.106 J**
PCB-121	E1668C	**0.00444 J**	**0.113 J**	**0.0267 J**	**0.0141 J**
PCB-122	E1668C	**0.00936 J**	**0.0709 J**	**0.0251 J**	**0.123 J**
PCB-123	E1668C	**0.0168 J**	**0.137 J**	**0.044 J**	**0.247 J**
PCB-126	E1668C	0.0029 UJ	**0.0353 J**	**0.00939 J**	**0.0378 J**
PCB-127	E1668C	**0.00547 J**	**0.0934 J**	**0.0217 J**	**0.115 J**
PCB-128/166	E1668C	**0.324 J**	**4.582 J**	**1.031 J**	**6.166 J**
PCB-129/138/163	E1668C	**3.354 J**	**32.234 J**	**9.719 J**	**39.435 J**
PCB-130	E1668C	**0.188 J**	**1.91 J**	**0.502 J**	**2.445 J**
PCB-131	E1668C	**0.0199 J**	**0.117 J**	**0.036 J**	**0.322 J**
PCB-132	E1668C	**0.827 J**	**5.79 J**	**1.785 J**	**9.995 J**
PCB-133	E1668C	**0.0919 J**	**1.678 J**	**0.389 J**	**1.022 J**
PCB-134	E1668C	**0.164 J**	**1.067 J**	**0.339 J**	**1.645 J**
PCB-135/151	E1668C	**2.214 J**	**24.59 J**	**6.748 J**	**22.265 J**

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP22-I-3	VP27-E/F-6	VP27-F-4	VP9-FL000954
	Sample ID	HOUS-IN-SITU-SPME-VP22-I-3-FD-240730	HOUS-IN-SITU-SPME-VP27-E/F-6-240730	HOUS-IN-SITU-SPME-VP27-F-4-240730	HOUS-IN-SITU-SPME-VP9-FL000954-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	FD	N	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-136	E1668C	**0.642 J**	**7.534 J**	**1.669 J**	**11.852 J**
PCB-137	E1668C	**0.0805 J**	**0.781 J**	**0.209 J**	**1.334 J**
PCB-139/140	E1668C	**0.0599 J**	**0.554 J**	**0.153 J**	**0.554 J**
PCB-141	E1668C	**0.615 J**	**9.3 J**	**2.366 J**	**11.584 J**
PCB-142	E1668C	0.000478 UJ	0.00143 UJ	0.000907 UJ	0.00117 UJ
PCB-143	E1668C	0.000454 UJ	0.00172 UJ	0.000953 UJ	0.00137 UJ
PCB-144	E1668C	**0.195 J**	**1.696 J**	**0.457 J**	**3.11 J**
PCB-145	E1668C	0.000321 UJ	0.000542 UJ	0.000528 UJ	**0.00582 J**
PCB-146	E1668C	**0.667 J**	**10.972 J**	**2.277 J**	**9.733 J**
PCB-147/149	E1668C	**4.009 J**	**41.673 J**	**11.781 J**	**43.562 J**
PCB-148	E1668C	**0.025 J**	**0.579 J**	**0.134 J**	**0.112 J**
PCB-150	E1668C	**0.0203 J**	**0.171 J**	**0.0633 J**	**0.0411 J**
PCB-152	E1668C	**0.00848 J**	**0.0516 J**	**0.0238 J**	**0.0168 J**
PCB-153/168	E1668C	**4.035 J**	**71.847 J**	**15.19 J**	**75.052 J**
PCB-154	E1668C	**0.122 J**	**2.287 J**	**0.536 J**	**0.714 J**
PCB-155	E1668C	**0.00144 J**	**0.0523 J**	**0.00717 J**	**0.00447 J**
PCB-156/157	E1668C	**0.119 J**	**2.703 J**	**0.532 J**	**3.325 J**
PCB-158	E1668C	**0.253 J**	**4.251 J**	**0.911 J**	**6.724 J**
PCB-159	E1668C	**0.0568 J**	**2.153 J**	**0.287 J**	**1.999 J**
PCB-160	E1668C	0.000372 UJ	0.00355 UJ	0.00122 UJ	0.00266 UJ
PCB-161	E1668C	0.000365 UJ	0.0048 UJ	0.00133 UJ	0.00328 UJ
PCB-162	E1668C	**0.0103 J**	**0.309 J**	**0.0496 J**	**0.369 J**
PCB-164	E1668C	**0.239 J**	**4.997 J**	**1.024 J**	**5.56 J**
PCB-165	E1668C	**0.00958 J**	**0.395 J**	**0.0788 J**	**0.0753 J**
PCB-167	E1668C	**0.08 J**	**2.402 J**	**0.344 J**	**3.076 J**
PCB-169	E1668C	**0.00529 J**	**0.0858 J**	**0.019 J**	**0.0921 J**
PCB-170	E1668C	**0.575 J**	**18.729 J**	**2.872 J**	**21.455 J**
PCB-171/173	E1668C	**0.251 J**	**6.257 J**	**1.092 J**	**7.44 J**
PCB-172	E1668C	**0.153 J**	**6.299 J**	**0.851 J**	**5.928 J**
PCB-174	E1668C	**1.057 J**	**33.005 J**	**5.595 J**	**28.225 J**
PCB-175	E1668C	**0.0426 J**	**1.24 J**	**0.172 J**	**1.587 J**
PCB-176	E1668C	**0.171 J**	**2.188 J**	**0.47 J**	**2.469 J**
PCB-177	E1668C	**0.582 J**	**16.402 J**	**2.896 J**	**13.827 J**
PCB-178	E1668C	**0.409 J**	**14.906 J**	**2.373 J**	**9.331 J**
PCB-179	E1668C	**0.72 J**	**10.648 J**	**2.691 J**	**7.917 J**
PCB-180/193	E1668C	**1.523 J**	**71.453 J**	**9.358 J**	**75.169 J**
PCB-181	E1668C	**0.00598 J**	**0.158 J**	**0.0229 J**	**0.168 J**

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP22-I-3	VP27-E/F-6	VP27-F-4	VP9-FL000954
	Sample ID	HOUS-IN-SITU-SPME-VP22-I-3-FD-240730	HOUS-IN-SITU-SPME-VP27-E/F-6-240730	HOUS-IN-SITU-SPME-VP27-F-4-240730	HOUS-IN-SITU-SPME-VP9-FL000954-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	FD	N	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-182	E1668C	0.0018 UJ	**0.308 J**	**0.0414 J**	**0.159 J**
PCB-183	E1668C	**0.544 J**	**17.101 J**	**2.439 J**	**21.219 J**
PCB-184	E1668C	0.000454 UJ	**0.0177 J**	**0.00401 J**	**0.0113 J**
PCB-185	E1668C	**0.155 J**	**4.192 J**	**0.864 J**	**4.255 J**
PCB-186	E1668C	0.000382 UJ	0.00123 UJ	0.000857 UJ	0.00103 UJ
PCB-187	E1668C	**1.601 J**	**56.715 J**	**8.706 J**	**41.572 J**
PCB-188	E1668C	**0.00373 J**	**0.115 J**	**0.0252 J**	**0.0243 J**
PCB-189	E1668C	**0.0208 J**	**1.769 J**	**0.144 J**	**1.829 J**
PCB-190	E1668C	**0.15 J**	**9.121 J**	**1.082 J**	**7.686 J**
PCB-191	E1668C	**0.031 J**	**1.779 J**	**0.188 J**	**2.193 J**
PCB-192	E1668C	0.00194 UJ	0.111 UJ	0.0165 UJ	0.0585 UJ
PCB-194	E1668C	**0.22 J**	**23.524 J**	**1.877 J**	**19.905 J**
PCB-195	E1668C	**0.122 J**	**9.489 J**	**0.981 J**	**7.002 J**
PCB-196	E1668C	**0.173 J**	**15.216 J**	**1.24 J**	**13.402 J**
PCB-197	E1668C	**0.0163 J**	**0.907 J**	**0.103 J**	**0.722 J**
PCB-198/199	E1668C	**0.46 J**	**44.74 J**	**4.096 J**	**27.149 J**
PCB-200	E1668C	**0.0809 J**	**4.107 J**	**0.546 J**	**2.415 J**
PCB-201	E1668C	**0.0818 J**	**8.712 J**	**0.636 J**	**6.073 J**
PCB-202	E1668C	**0.121 J**	**7.69 J**	**0.922 J**	**3.955 J**
PCB-203	E1668C	**0.263 J**	**26.758 J**	**2.319 J**	**17.164 J**
PCB-204	E1668C	0.000454 UJ	0.0165 UJ	0.00186 UJ	0.00392 UJ
PCB-205	E1668C	**0.0168 J**	**3.136 J**	**0.192 J**	**2.105 J**
PCB-206	E1668C	**0.0664 J**	**14.089 J**	**0.754 J**	**11.754 J**
PCB-207	E1668C	**0.0103 J**	**1.193 J**	**0.0858 J**	**0.938 J**
PCB-208	E1668C	**0.0191 J**	**2.225 J**	**0.161 J**	**1.815 J**
PCB-209	E1668C	**0.00483 J**	**0.389 J**	**0.0266 J**	**0.881 J**
Total PCB Congener (U = 0 max limit)		**37 J**	**710 J**	**130 J**	**700 J**

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

		Location ID	VP9-V/W-14	VP9-V-15/16	VP9-W/X-16	VP9-W-15
		Sample ID	HOUS-IN-SITU-SPME-VP9-V/W-14-240730	HOUS-IN-SITU-SPME-VP9-V-15/16-240730	HOUS-IN-SITU-SPME-VP9-W/X-16-240730	HOUS-IN-SITU-SPME-VP9-W-15-240730
		Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
		Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
		Sample Type	N	N	N	N
		Matrix	SPME	SPME	SPME	SPME
PCB Congeners (SPME) (ng/L)						
PCB-001	E1668C		0.0121 UJ	0.015 UJ	0.0136 UJ	0.0128 UJ
PCB-002	E1668C		0.0044 UJ	0.00521 UJ	0.00493 UJ	0.0046 UJ
PCB-003	E1668C		0.00453 UJ	0.00545 UJ	0.00507 UJ	0.00481 UJ
PCB-004	E1668C		**0.0126 J**	**0.0104 J**	**0.0206 J**	**0.0111 J**
PCB-005	E1668C		0.00316 UJ	0.00612 UJ	0.00508 UJ	0.00575 UJ
PCB-006	E1668C		**0.00207 J**	0.00429 UJ	**0.00341 J**	0.00406 UJ
PCB-007	E1668C		0.00246 UJ	0.00488 UJ	0.00397 UJ	0.00466 UJ
PCB-008	E1668C		**0.00622 J**	**0.00376 J**	**0.00927 J**	**0.00618 J**
PCB-009	E1668C		0.00224 UJ	0.00444 UJ	0.00362 UJ	0.0042 UJ
PCB-010	E1668C		0.00611 UJ	0.00559 UJ	0.00601 UJ	0.00494 UJ
PCB-011	E1668C		0.00576 UJ	0.00565 UJ	0.00509 UJ	0.00479 UJ
PCB-012/013	E1668C		0.00195 UJ	0.00375 UJ	0.00314 UJ	0.0036 UJ
PCB-014	E1668C		0.00161 UJ	0.00314 UJ	0.00261 UJ	0.00304 UJ
PCB-015	E1668C		**0.00351 J**	0.00265 UJ	**0.0033 J**	**0.00508 J**
PCB-016	E1668C		0.00516 UJ	0.00435 UJ	0.00468 UJ	0.00397 UJ
PCB-017	E1668C		**0.00643 J**	0.00356 UJ	**0.0084 J**	**0.00866 J**
PCB-018/030	E1668C		**0.00815 J**	**0.00372 J**	**0.0103 J**	**0.0103 J**
PCB-019	E1668C		0.00605 UJ	0.00507 UJ	**0.00732 J**	**0.00581 J**
PCB-020/028	E1668C		**0.00788 J**	**0.00316 J**	**0.0202 J**	**0.024 J**
PCB-021/033	E1668C		0.0023 UJ	0.00259 UJ	0.00335 UJ	**0.00311 J**
PCB-022	E1668C		0.00168 UJ	0.00189 UJ	**0.00233 J**	**0.00324 J**
PCB-023	E1668C		0.00212 UJ	0.00246 UJ	0.0031 UJ	0.00264 UJ
PCB-024	E1668C		0.00231 UJ	0.00213 UJ	0.00211 UJ	0.00199 UJ
PCB-025	E1668C		**0.00226 J**	0.00162 UJ	**0.0029 J**	**0.00397 J**
PCB-026/029	E1668C		**0.0102 J**	**0.0026 J**	**0.0147 J**	**0.0157 J**
PCB-027	E1668C		**0.00229 J**	0.00172 UJ	0.00183 UJ	**0.00325 J**
PCB-031	E1668C		**0.0284 J**	**0.00687 J**	**0.025 J**	**0.0403 J**
PCB-032	E1668C		0.00184 UJ	0.00153 UJ	**0.00394 J**	**0.00311 J**
PCB-034	E1668C		0.00177 UJ	0.00206 UJ	0.00257 UJ	0.00227 UJ
PCB-035	E1668C		0.00105 UJ	0.00119 UJ	0.00153 UJ	0.0014 UJ
PCB-036	E1668C		0.00087 UJ	0.000974 UJ	0.00126 UJ	0.00117 UJ
PCB-037	E1668C		**0.00616 J**	**0.00176 J**	**0.00456 J**	**0.00883 J**
PCB-038	E1668C		0.00108 UJ	0.00124 UJ	0.00158 UJ	0.00141 UJ
PCB-039	E1668C		0.000962 UJ	0.00109 UJ	0.00139 UJ	0.00132 UJ
PCB-040/071	E1668C		**0.00749 J**	**0.00255 J**	**0.015 J**	**0.0274 J**
PCB-041	E1668C		0.00125 UJ	**0.00043 J**	0.00167 UJ	0.00181 UJ

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP9-V/W-14	VP9-V-15/16	VP9-W/X-16	VP9-W-15
	Sample ID	HOUS-IN-SITU-SPME-VP9-V/W-14-240730	HOUS-IN-SITU-SPME-VP9-V-15/16-240730	HOUS-IN-SITU-SPME-VP9-W/X-16-240730	HOUS-IN-SITU-SPME-VP9-W-15-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-042	E1668C	**0.0069 J**	**0.00247 J**	**0.0172 J**	**0.0175 J**
PCB-043	E1668C	0.000914 UJ	0.00114 UJ	0.00121 UJ	0.00143 UJ
PCB-044/047/065	E1668C	**0.084 J**	**0.0383 J**	**0.28 J**	**0.273 J**
PCB-045	E1668C	0.00197 UJ	0.00209 UJ	**0.00364 J**	**0.00769 J**
PCB-046	E1668C	0.00185 UJ	0.00214 UJ	0.00244 UJ	0.00251 UJ
PCB-048	E1668C	**0.00204 J**	0.00106 UJ	**0.00252 J**	0.00134 UJ
PCB-049/069	E1668C	**0.68 J**	**0.155 J**	**0.694 J**	**1.091 J**
PCB-050/053	E1668C	**0.0142 J**	**0.00436 J**	**0.044 J**	**0.0509 J**
PCB-051	E1668C	**0.00628 J**	**0.00217 J**	**0.0112 J**	**0.0113 J**
PCB-052	E1668C	**1.242 J**	**0.151 J**	**1.604 J**	**2.623 J**
PCB-054	E1668C	**0.0024 J**	0.00066 UJ	**0.00332 J**	**0.00336 J**
PCB-055	E1668C	0.0027 UJ	0.00163 UJ	0.0019 UJ	0.00344 UJ
PCB-056	E1668C	**0.0199 J**	**0.00579 J**	**0.0144 J**	**0.0254 J**
PCB-057	E1668C	0.00314 UJ	0.00185 UJ	0.00216 UJ	0.00394 UJ
PCB-058	E1668C	0.00264 UJ	0.00159 UJ	0.00182 UJ	0.00338 UJ
PCB-059/062/075	E1668C	**0.0184 J**	**0.00581 J**	**0.0301 J**	**0.0404 J**
PCB-060	E1668C	**0.0126 J**	**0.00485 J**	**0.00464 J**	**0.013 J**
PCB-061/070/074/076	E1668C	**0.508 J**	**0.177 J**	**0.28 J**	**0.523 J**
PCB-063	E1668C	**0.00969 J**	**0.00406 J**	**0.00447 J**	**0.00872 J**
PCB-064	E1668C	**0.209 J**	**0.0568 J**	**0.133 J**	**0.259 J**
PCB-066	E1668C	**0.111 J**	**0.0404 J**	**0.117 J**	**0.211 J**
PCB-067	E1668C	0.00272 UJ	**0.000364 J**	**0.00239 J**	0.00344 UJ
PCB-068	E1668C	**0.0264 J**	**0.0158 J**	**0.0168 J**	**0.0307 J**
PCB-072	E1668C	**0.0489 J**	**0.0178 J**	**0.0259 J**	**0.0605 J**
PCB-073	E1668C	**0.00732 J**	**0.00146 J**	**0.0111 J**	**0.0123 J**
PCB-077	E1668C	**0.0287 J**	**0.0096 J**	**0.0107 J**	**0.0228 J**
PCB-078	E1668C	0.00314 UJ	0.00174 UJ	0.00198 UJ	0.00362 UJ
PCB-079	E1668C	**0.0193 J**	**0.00559 J**	**0.0101 J**	**0.0249 J**
PCB-080	E1668C	0.00351 UJ	0.00188 UJ	0.00207 UJ	0.00368 UJ
PCB-081	E1668C	0.00298 UJ	0.00169 UJ	0.00188 UJ	0.00349 UJ
PCB-082	E1668C	**0.0827 J**	**0.0183 J**	**0.0565 J**	**0.109 J**
PCB-083	E1668C	**0.138 J**	**0.00982 J**	**0.0432 J**	**0.082 J**
PCB-084	E1668C	**0.0725 J**	**0.0155 J**	**0.176 J**	**0.322 J**
PCB-085/116	E1668C	**0.932 J**	**0.321 J**	**0.305 J**	**0.803 J**
PCB-086/087/097/109/119/125	E1668C	**2.295 J**	**0.532 J**	**1.007 J**	**2.203 J**
PCB-088	E1668C	0.00422 UJ	0.00153 UJ	0.00637 UJ	0.00144 UJ
PCB-089	E1668C	0.00363 UJ	0.00126 UJ	0.00548 UJ	**0.0059 J**

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP9-V/W-14	VP9-V-15/16	VP9-W/X-16	VP9-W-15
	Sample ID	HOUS-IN-SITU-SPME-VP9-V/W-14-240730	HOUS-IN-SITU-SPME-VP9-V-15/16-240730	HOUS-IN-SITU-SPME-VP9-W/X-16-240730	HOUS-IN-SITU-SPME-VP9-W-15-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-090/101/113	E1668C	**10.187 J**	**2.193 J**	**4.199 J**	**8.625 J**
PCB-091	E1668C	**0.787 J**	**0.177 J**	**0.467 J**	**0.911 J**
PCB-092	E1668C	**2.25 J**	**0.422 J**	**0.945 J**	**2.075 J**
PCB-093/100	E1668C	**0.0416 J**	**0.0135 J**	**0.0882 J**	**0.0895 J**
PCB-094	E1668C	**0.0109 J**	0.00153 UJ	**0.0184 J**	**0.0236 J**
PCB-095	E1668C	**4.589 J**	**0.59 J**	**3.551 J**	**6.756 J**
PCB-096	E1668C	**0.00584 J**	**0.00082 J**	**0.0129 J**	**0.0216 J**
PCB-098	E1668C	0.00351 UJ	0.00118 UJ	**0.00662 J**	0.00112 UJ
PCB-099	E1668C	**3.592 J**	**0.777 J**	**1.301 J**	**2.718 J**
PCB-102	E1668C	**0.0296 J**	**0.00408 J**	**0.0321 J**	**0.068 J**
PCB-103	E1668C	**0.183 J**	**0.046 J**	**0.143 J**	**0.229 J**
PCB-104	E1668C	**0.00112 J**	**0.000525 J**	**0.00435 J**	**0.00279 J**
PCB-105	E1668C	**0.888 J**	**0.398 J**	**0.242 J**	**0.524 J**
PCB-106	E1668C	0.00404 UJ	0.00125 UJ	0.00461 UJ	0.0010 UJ
PCB-107	E1668C	**0.409 J**	**0.148 J**	**0.106 J**	**0.222 J**
PCB-108/124	E1668C	**0.323 J**	**0.109 J**	**0.0711 J**	**0.178 J**
PCB-110	E1668C	**8.039 J**	**2.357 J**	**2.427 J**	**6.458 J**
PCB-111	E1668C	**0.0265 J**	**0.0117 J**	0.00599 UJ	**0.022 J**
PCB-112	E1668C	**0.00621 J**	**0.00197 J**	**0.00249 J**	**0.00523 J**
PCB-114	E1668C	**0.0588 J**	**0.0205 J**	**0.016 J**	**0.0309 J**
PCB-115	E1668C	0.00319 UJ	0.000873 UJ	0.00396 UJ	0.00077 UJ
PCB-117	E1668C	**0.192 J**	**0.0565 J**	**0.0608 J**	**0.121 J**
PCB-118	E1668C	**4.405 J**	**1.556 J**	**1.081 J**	**2.286 J**
PCB-120	E1668C	**0.0771 J**	**0.0244 J**	**0.0206 J**	**0.0424 J**
PCB-121	E1668C	**0.0162 J**	**0.0074 J**	**0.00863 J**	**0.0121 J**
PCB-122	E1668C	**0.0668 J**	**0.0234 J**	**0.0162 J**	**0.0357 J**
PCB-123	E1668C	**0.125 J**	**0.0387 J**	**0.0249 J**	**0.0586 J**
PCB-126	E1668C	**0.0284 J**	**0.00929 J**	0.0048 UJ	**0.0113 J**
PCB-127	E1668C	**0.0549 J**	**0.0188 J**	0.00752 UJ	**0.0224 J**
PCB-128/166	E1668C	**2.508 J**	**0.935 J**	**0.542 J**	**1.094 J**
PCB-129/138/163	E1668C	**19.181 J**	**7.479 J**	**4.821 J**	**10.413 J**
PCB-130	E1668C	**1.111 J**	**0.422 J**	**0.261 J**	**0.593 J**
PCB-131	E1668C	**0.109 J**	**0.029 J**	**0.0376 J**	**0.0888 J**
PCB-132	E1668C	**4.422 J**	**1.421 J**	**1.397 J**	**3.252 J**
PCB-133	E1668C	**0.555 J**	**0.215 J**	**0.153 J**	**0.293 J**
PCB-134	E1668C	**0.728 J**	**0.205 J**	**0.3 J**	**0.579 J**
PCB-135/151	E1668C	**11.867 J**	**3.83 J**	**4.343 J**	**8.094 J**

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP9-V/W-14	VP9-V-15/16	VP9-W/X-16	VP9-W-15
	Sample ID	HOUS-IN-SITU-SPME-VP9-V/W-14-240730	HOUS-IN-SITU-SPME-VP9-V-15/16-240730	HOUS-IN-SITU-SPME-VP9-W/X-16-240730	HOUS-IN-SITU-SPME-VP9-W-15-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-136	E1668C	**4.411 J**	**0.9 J**	**1.76 J**	**3.377 J**
PCB-137	E1668C	**0.519 J**	**0.189 J**	**0.123 J**	**0.315 J**
PCB-139/140	E1668C	**0.286 J**	**0.0995 J**	**0.0815 J**	**0.19 J**
PCB-141	E1668C	**5.102 J**	**1.689 J**	**1.451 J**	**2.667 J**
PCB-142	E1668C	0.000653 UJ	0.000577 UJ	0.0010 UJ	0.000835 UJ
PCB-143	E1668C	0.000674 UJ	0.00061 UJ	0.000978 UJ	0.000835 UJ
PCB-144	E1668C	**1.224 J**	**0.361 J**	**0.453 J**	**0.857 J**
PCB-145	E1668C	**0.00246 J**	0.000336 UJ	**0.00122 J**	0.000544 UJ
PCB-146	E1668C	**4.488 J**	**1.644 J**	**1.177 J**	**2.239 J**
PCB-147/149	E1668C	**22.131 J**	**7.437 J**	**7.376 J**	**14.729 J**
PCB-148	E1668C	**0.109 J**	**0.0469 J**	**0.0439 J**	**0.0694 J**
PCB-150	E1668C	**0.0501 J**	**0.0178 J**	**0.0272 J**	**0.0507 J**
PCB-152	E1668C	**0.0169 J**	**0.00618 J**	**0.0101 J**	**0.0172 J**
PCB-153/168	E1668C	**32.484 J**	**11.473 J**	**7.932 J**	**14.863 J**
PCB-154	E1668C	**0.515 J**	**0.199 J**	**0.206 J**	**0.352 J**
PCB-155	E1668C	**0.0043 J**	**0.00147 J**	**0.00301 J**	**0.00306 J**
PCB-156/157	E1668C	**1.299 J**	**0.501 J**	**0.264 J**	**0.46 J**
PCB-158	E1668C	**2.378 J**	**0.842 J**	**0.587 J**	**1.017 J**
PCB-159	E1668C	**0.69 J**	**0.255 J**	**0.163 J**	**0.254 J**
PCB-160	E1668C	0.00107 UJ	0.000859 UJ	0.0013 UJ	0.000919 UJ
PCB-161	E1668C	0.00132 UJ	0.000925 UJ	0.00148 UJ	0.000875 UJ
PCB-162	E1668C	**0.147 J**	**0.0487 J**	**0.0226 J**	**0.0419 J**
PCB-164	E1668C	**2.254 J**	**0.835 J**	**0.517 J**	**0.888 J**
PCB-165	E1668C	**0.0787 J**	0.00101 UJ	0.0016 UJ	**0.0371 J**
PCB-167	E1668C	**1.039 J**	**0.364 J**	**0.18 J**	**0.295 J**
PCB-169	E1668C	**0.033 J**	**0.0152 J**	**0.00949 J**	**0.0165 J**
PCB-170	E1668C	**6.697 J**	**2.565 J**	**1.412 J**	**2.344 J**
PCB-171/173	E1668C	**2.472 J**	**0.955 J**	**0.613 J**	**1.027 J**
PCB-172	E1668C	**1.94 J**	**0.756 J**	**0.443 J**	**0.653 J**
PCB-174	E1668C	**10.795 J**	**4.089 J**	**2.669 J**	**4.456 J**
PCB-175	E1668C	**0.456 J**	**0.154 J**	**0.128 J**	**0.199 J**
PCB-176	E1668C	**1.008 J**	**0.358 J**	**0.356 J**	**0.678 J**
PCB-177	E1668C	**5.368 J**	**2.154 J**	**1.328 J**	**2.3 J**
PCB-178	E1668C	**4.094 J**	**1.593 J**	**1.095 J**	**1.602 J**
PCB-179	E1668C	**4.226 J**	**1.531 J**	**1.394 J**	**2.596 J**
PCB-180/193	E1668C	**22.103 J**	**8.197 J**	**4.787 J**	**7.085 J**
PCB-181	E1668C	**0.0595 J**	**0.0195 J**	**0.0091 J**	**0.0223 J**

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP9-V/W-14	VP9-V-15/16	VP9-W/X-16	VP9-W-15
	Sample ID	HOUS-IN-SITU-SPME-VP9-V/W-14-240730	HOUS-IN-SITU-SPME-VP9-V-15/16-240730	HOUS-IN-SITU-SPME-VP9-W/X-16-240730	HOUS-IN-SITU-SPME-VP9-W-15-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N	N
	Matrix	SPME	SPME	SPME	SPME
PCB-182	E1668C	**0.057 J**	0.00604 UJ	**0.0108 J**	**0.0209 J**
PCB-183	E1668C	**6.4 J**	**2.128 J**	**1.65 J**	**2.549 J**
PCB-184	E1668C	**0.00585 J**	**0.00133 J**	**0.00117 J**	**0.00241 J**
PCB-185	E1668C	**1.784 J**	**0.669 J**	**0.42 J**	**0.641 J**
PCB-186	E1668C	0.000524 UJ	0.000441 UJ	0.000629 UJ	0.000547 UJ
PCB-187	E1668C	**16.353 J**	**6.126 J**	**4.279 J**	**6.214 J**
PCB-188	E1668C	**0.0196 J**	**0.00911 J**	**0.00662 J**	**0.0103 J**
PCB-189	E1668C	**0.398 J**	**0.137 J**	**0.0762 J**	**0.0964 J**
PCB-190	E1668C	**2.426 J**	**0.91 J**	**0.494 J**	**0.669 J**
PCB-191	E1668C	**0.568 J**	**0.187 J**	**0.13 J**	**0.158 J**
PCB-192	E1668C	0.0256 UJ	0.0102 UJ	0.0102 UJ	0.00636 UJ
PCB-194	E1668C	**4.532 J**	**1.739 J**	**0.927 J**	**1.067 J**
PCB-195	E1668C	**1.985 J**	**0.816 J**	**0.435 J**	**0.576 J**
PCB-196	E1668C	**3.484 J**	**1.207 J**	**0.754 J**	**0.889 J**
PCB-197	E1668C	**0.235 J**	**0.0768 J**	**0.0595 J**	**0.0808 J**
PCB-198/199	E1668C	**8.664 J**	**3.292 J**	**1.922 J**	**2.215 J**
PCB-200	E1668C	**0.975 J**	**0.38 J**	**0.245 J**	**0.353 J**
PCB-201	E1668C	**1.777 J**	**0.512 J**	**0.414 J**	**0.432 J**
PCB-202	E1668C	**1.739 J**	**0.594 J**	**0.407 J**	**0.501 J**
PCB-203	E1668C	**5.355 J**	**1.938 J**	**1.08 J**	**1.282 J**
PCB-204	E1668C	0.00284 UJ	0.00142 UJ	0.00188 UJ	0.00116 UJ
PCB-205	E1668C	**0.507 J**	**0.173 J**	**0.0856 J**	**0.0955 J**
PCB-206	E1668C	**3.632 J**	**0.78 J**	**0.409 J**	**0.377 J**
PCB-207	E1668C	**0.314 J**	**0.076 J**	**0.0514 J**	**0.0525 J**
PCB-208	E1668C	**0.73 J**	**0.155 J**	**0.0836 J**	**0.0994 J**
PCB-209	E1668C	**0.317 J**	**0.0542 J**	**0.0138 J**	**0.0236 J**
Total PCB Congener (U = 0 max limit)		**280 J**	**96 J**	**82 J**	**150 J**

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

		Location ID	VP9-W-17	VP9-X/Y-16	VP9-X-13
		Sample ID	HOUS-IN-SITU-SPME-VP9-W-17-240730	HOUS-IN-SITU-SPME-VP9-X/Y-16-240730	HOUS-IN-SITU-SPME-VP9-X-13-240730
		Sample Date	7/30/2024	7/30/2024	7/30/2024
		Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
		Sample Type	N	N	N
		Matrix	SPME	SPME	SPME
PCB Congeners (SPME) (ng/L)					
PCB-001	E1668C		0.0136 UJ	0.0111 UJ	0.0103 UJ
PCB-002	E1668C		0.0047 UJ	0.00408 UJ	0.00386 UJ
PCB-003	E1668C		0.00484 UJ	0.00421 UJ	0.00398 UJ
PCB-004	E1668C		**0.0141 J**	**0.0147 J**	**0.00762 J**
PCB-005	E1668C		0.00815 UJ	0.00357 UJ	0.00625 UJ
PCB-006	E1668C		0.00567 UJ	0.00248 UJ	0.00434 UJ
PCB-007	E1668C		0.00637 UJ	0.00279 UJ	0.00489 UJ
PCB-008	E1668C		**0.0069 J**	**0.00607 J**	0.00412 UJ
PCB-009	E1668C		0.00582 UJ	0.00254 UJ	0.00446 UJ
PCB-010	E1668C		0.0056 UJ	0.00812 UJ	0.00265 UJ
PCB-011	E1668C		0.00654 UJ	0.00964 UJ	0.00709 UJ
PCB-012/013	E1668C		0.00502 UJ	0.00221 UJ	0.00386 UJ
PCB-014	E1668C		0.00416 UJ	0.00183 UJ	0.0032 UJ
PCB-015	E1668C		**0.0039 J**	**0.00401 J**	0.00276 UJ
PCB-016	E1668C		0.00465 UJ	0.00453 UJ	0.0041 UJ
PCB-017	E1668C		**0.00795 J**	**0.014 J**	0.00328 UJ
PCB-018/030	E1668C		**0.009 J**	**0.0142 J**	**0.00441 J**
PCB-019	E1668C		**0.0161 J**	**0.0129 J**	**0.00736 J**
PCB-020/028	E1668C		**0.0173 J**	**0.0272 J**	**0.00528 J**
PCB-021/033	E1668C		0.00277 UJ	**0.00646 J**	0.00215 UJ
PCB-022	E1668C		0.00202 UJ	**0.00277 J**	0.00156 UJ
PCB-023	E1668C		0.00257 UJ	0.00216 UJ	0.00198 UJ
PCB-024	E1668C		0.00208 UJ	0.00203 UJ	0.00183 UJ
PCB-025	E1668C		**0.00313 J**	**0.00825 J**	0.00133 UJ
PCB-026/029	E1668C		**0.0125 J**	**0.0366 J**	**0.0054 J**
PCB-027	E1668C		**0.00236 J**	**0.0045 J**	0.00158 UJ
PCB-031	E1668C		**0.0352 J**	**0.0583 J**	**0.0138 J**
PCB-032	E1668C		**0.00245 J**	**0.0053 J**	0.00146 UJ
PCB-034	E1668C		0.00216 UJ	**0.00142 J**	0.00166 UJ
PCB-035	E1668C		0.00136 UJ	0.00106 UJ	0.00101 UJ
PCB-036	E1668C		0.00118 UJ	0.000879 UJ	0.000858 UJ
PCB-037	E1668C		**0.00845 J**	**0.0158 J**	**0.0035 J**
PCB-038	E1668C		0.00136 UJ	0.0011 UJ	0.00103 UJ
PCB-039	E1668C		0.00131 UJ	0.000971 UJ	0.000953 UJ
PCB-040/071	E1668C		**0.0131 J**	**0.101 J**	**0.00503 J**
PCB-041	E1668C		0.00156 UJ	0.00154 UJ	0.00124 UJ

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP9-W-17	VP9-X/Y-16	VP9-X-13
	Sample ID	HOUS-IN-SITU-SPME-VP9-W-17-240730	HOUS-IN-SITU-SPME-VP9-X/Y-16-240730	HOUS-IN-SITU-SPME-VP9-X-13-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N
	Matrix	SPME	SPME	SPME
PCB-042	E1668C	**0.0188 J**	**0.106 J**	**0.00373 J**
PCB-043	E1668C	0.00116 UJ	0.00112 UJ	0.000915 UJ
PCB-044/047/065	E1668C	**0.243 J**	**1.076 J**	**0.105 J**
PCB-045	E1668C	**0.00159 J**	**0.0227 J**	**0.000253 J**
PCB-046	E1668C	0.00224 UJ	**0.00271 J**	0.0018 UJ
PCB-048	E1668C	**0.00368 J**	**0.014 J**	0.000907 UJ
PCB-049/069	E1668C	**1.001 J**	**3.16 J**	**0.353 J**
PCB-050/053	E1668C	**0.036 J**	**0.147 J**	**0.017 J**
PCB-051	E1668C	**0.0132 J**	**0.0234 J**	**0.0103 J**
PCB-052	E1668C	**2.632 J**	**12.74 J**	**0.392 J**
PCB-054	E1668C	**0.00335 J**	**0.0067 J**	**0.00232 J**
PCB-055	E1668C	0.00399 UJ	0.00427 UJ	0.00221 UJ
PCB-056	E1668C	**0.0409 J**	**0.058 J**	**0.0135 J**
PCB-057	E1668C	0.00518 UJ	0.00494 UJ	0.00273 UJ
PCB-058	E1668C	0.00436 UJ	0.00416 UJ	0.00229 UJ
PCB-059/062/075	E1668C	**0.0317 J**	**0.0801 J**	**0.0136 J**
PCB-060	E1668C	**0.0138 J**	**0.0141 J**	**0.0079 J**
PCB-061/070/074/076	E1668C	**0.757 J**	**1.539 J**	**0.277 J**
PCB-063	E1668C	**0.0139 J**	**0.0128 J**	**0.00628 J**
PCB-064	E1668C	**0.228 J**	**0.555 J**	**0.117 J**
PCB-066	E1668C	**0.401 J**	**0.537 J**	**0.0979 J**
PCB-067	E1668C	**0.0055 J**	**0.00594 J**	**0.00259 J**
PCB-068	E1668C	**0.0427 J**	**0.046 J**	**0.0294 J**
PCB-072	E1668C	**0.0737 J**	**0.0933 J**	**0.0415 J**
PCB-073	E1668C	**0.0136 J**	**0.0284 J**	**0.00748 J**
PCB-077	E1668C	**0.0485 J**	**0.0532 J**	**0.0155 J**
PCB-078	E1668C	0.00733 UJ	0.00483 UJ	0.00332 UJ
PCB-079	E1668C	**0.0808 J**	**0.0912 J**	**0.0115 J**
PCB-080	E1668C	0.0104 UJ	0.00531 UJ	0.00426 UJ
PCB-081	E1668C	0.00709 UJ	0.00458 UJ	0.00318 UJ
PCB-082	E1668C	**0.214 J**	**0.505 J**	**0.0378 J**
PCB-083	E1668C	**0.21 J**	**0.622 J**	**0.0183 J**
PCB-084	E1668C	**0.374 J**	**1.896 J**	**0.0322 J**
PCB-085/116	E1668C	**1.62 J**	**2.102 J**	**0.529 J**
PCB-086/087/097/109/119/125	E1668C	**4.454 J**	**8.059 J**	**1.066 J**
PCB-088	E1668C	0.0148 UJ	0.0791 UJ	0.00262 UJ
PCB-089	E1668C	0.0128 UJ	0.068 UJ	0.00225 UJ

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP9-W-17	VP9-X/Y-16	VP9-X-13
	Sample ID	HOUS-IN-SITU-SPME-VP9-W-17-240730	HOUS-IN-SITU-SPME-VP9-X/Y-16-240730	HOUS-IN-SITU-SPME-VP9-X-13-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N
	Matrix	SPME	SPME	SPME
PCB-090/101/113	E1668C	**24.677 J**	**28.3 J**	**5.691 J**
PCB-091	E1668C	**1.261 J**	**2.653 J**	**0.421 J**
PCB-092	E1668C	**5.105 J**	**6.05 J**	**1.236 J**
PCB-093/100	E1668C	**0.111 J**	**0.239 J**	**0.0598 J**
PCB-094	E1668C	**0.0365 J**	0.0833 UJ	**0.00859 J**
PCB-095	E1668C	**10.644 J**	**24.751 J**	**1.538 J**
PCB-096	E1668C	**0.00878 J**	**0.0617 J**	**0.003 J**
PCB-098	E1668C	0.0138 UJ	**0.0336 J**	0.00231 UJ
PCB-099	E1668C	**8.439 J**	**8.627 J**	**2.194 J**
PCB-102	E1668C	**0.0958 J**	**0.246 J**	**0.013 J**
PCB-103	E1668C	**0.318 J**	**0.426 J**	**0.139 J**
PCB-104	E1668C	**0.00319 J**	**0.0081 J**	**0.00324 J**
PCB-105	E1668C	**3.062 J**	**1.6 J**	**0.756 J**
PCB-106	E1668C	0.0396 UJ	0.0706 UJ	0.00449 UJ
PCB-107	E1668C	**1.395 J**	**0.719 J**	**0.37 J**
PCB-108/124	E1668C	**1.052 J**	**0.559 J**	**0.262 J**
PCB-110	E1668C	**19.462 J**	**18.177 J**	**5.077 J**
PCB-111	E1668C	0.0658 UJ	0.0966 UJ	**0.0329 J**
PCB-112	E1668C	0.0205 UJ	0.0514 UJ	**0.00445 J**
PCB-114	E1668C	**0.187 J**	0.0633 UJ	**0.0529 J**
PCB-115	E1668C	0.0245 UJ	0.0569 UJ	0.00307 UJ
PCB-117	E1668C	**0.424 J**	**0.341 J**	**0.165 J**
PCB-118	E1668C	**16.411 J**	**8.522 J**	**3.676 J**
PCB-120	E1668C	**0.245 J**	0.0835 UJ	**0.0789 J**
PCB-121	E1668C	**0.0425 J**	0.0761 UJ	**0.0283 J**
PCB-122	E1668C	**0.201 J**	0.0828 UJ	**0.0531 J**
PCB-123	E1668C	**0.449 J**	**0.186 J**	**0.106 J**
PCB-126	E1668C	**0.102 J**	**0.0335 J**	0.0207 UJ
PCB-127	E1668C	0.107 UJ	0.126 UJ	0.0104 UJ
PCB-128/166	E1668C	**11.565 J**	**3.866 J**	**2.307 J**
PCB-129/138/163	E1668C	**68.502 J**	**30.428 J**	**15.22 J**
PCB-130	E1668C	**4.426 J**	**1.719 J**	**0.926 J**
PCB-131	E1668C	**0.4 J**	**0.288 J**	**0.0743 J**
PCB-132	E1668C	**13.924 J**	**9.108 J**	**3.083 J**
PCB-133	E1668C	**2.357 J**	**0.798 J**	**0.604 J**
PCB-134	E1668C	**2.51 J**	**1.894 J**	**0.557 J**
PCB-135/151	E1668C	**40.117 J**	**21.949 J**	**10.515 J**

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID	VP9-W-17	VP9-X/Y-16	VP9-X-13
	Sample ID	HOUS-IN-SITU-SPME-VP9-W-17-240730	HOUS-IN-SITU-SPME-VP9-X/Y-16-240730	HOUS-IN-SITU-SPME-VP9-X-13-240730
	Sample Date	7/30/2024	7/30/2024	7/30/2024
	Depth	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
	Sample Type	N	N	N
	Matrix	SPME	SPME	SPME
PCB-136	E1668C	**18.859 J**	**11.092 J**	**3.507 J**
PCB-137	E1668C	**2.131 J**	**1.078 J**	**0.473 J**
PCB-139/140	E1668C	**0.886 J**	**0.502 J**	**0.251 J**
PCB-141	E1668C	**21.886 J**	**8.85 J**	**4.707 J**
PCB-142	E1668C	0.00404 UJ	0.00102 UJ	0.00115 UJ
PCB-143	E1668C	0.00483 UJ	0.00104 UJ	0.00129 UJ
PCB-144	E1668C	**4.623 J**	**2.432 J**	**1.077 J**
PCB-145	E1668C	0.00121 UJ	0.000524 UJ	0.000465 UJ
PCB-146	E1668C	**19.77 J**	**6.79 J**	**4.496 J**
PCB-147/149	E1668C	**73.464 J**	**38.885 J**	**18.459 J**
PCB-148	E1668C	**0.324 J**	**0.145 J**	**0.148 J**
PCB-150	E1668C	**0.0741 J**	**0.0776 J**	**0.0438 J**
PCB-152	E1668C	**0.0242 J**	**0.0316 J**	**0.0159 J**
PCB-153/168	E1668C	**151.115 J**	**48.789 J**	**32.038 J**
PCB-154	E1668C	**1.906 J**	**0.797 J**	**0.653 J**
PCB-155	E1668C	**0.0231 J**	**0.00803 J**	**0.0115 J**
PCB-156/157	E1668C	**9.404 J**	**1.976 J**	**1.455 J**
PCB-158	E1668C	**13.468 J**	**3.937 J**	**2.589 J**
PCB-159	E1668C	**5.314 J**	**1.013 J**	**0.913 J**
PCB-160	E1668C	0.0125 UJ	0.00159 UJ	0.00273 UJ
PCB-161	E1668C	0.0187 UJ	0.00192 UJ	0.00378 UJ
PCB-162	E1668C	**0.879 J**	**0.189 J**	**0.152 J**
PCB-164	E1668C	**12.291 J**	**3.329 J**	**2.369 J**
PCB-165	E1668C	**0.385 J**	**0.0759 J**	**0.115 J**
PCB-167	E1668C	**7.511 J**	**1.395 J**	**1.125 J**
PCB-169	E1668C	**0.183 J**	**0.0433 J**	0.032 UJ
PCB-170	E1668C	**53.664 J**	**8.888 J**	**7.698 J**
PCB-171/173	E1668C	**16.561 J**	**3.791 J**	**3.005 J**
PCB-172	E1668C	**17.15 J**	**2.733 J**	**2.663 J**
PCB-174	E1668C	**70.447 J**	**16.816 J**	**13.183 J**
PCB-175	E1668C	**3.34 J**	**0.775 J**	**0.64 J**
PCB-176	E1668C	**4.22 J**	**1.799 J**	**1.058 J**
PCB-177	E1668C	**32.875 J**	**8.065 J**	**6.373 J**
PCB-178	E1668C	**27.378 J**	**5.878 J**	**5.822 J**
PCB-179	E1668C	**15.855 J**	**6.966 J**	**4.182 J**
PCB-180/193	E1668C	**199.179 J**	**31.742 J**	**30.08 J**
PCB-181	E1668C	**0.323 J**	**0.0909 J**	**0.0641 J**

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

	Location ID Sample ID Sample Date Depth Sample Type Matrix	VP9-W-17 HOUS-IN-SITU-SPME-VP9-W-17-240730 7/30/2024 0 - 0.5 ft N SPME	VP9-X/Y-16 HOUS-IN-SITU-SPME-VP9-X/Y-16-240730 7/30/2024 0 - 0.5 ft N SPME	VP9-X-13 HOUS-IN-SITU-SPME-VP9-X-13-240730 7/30/2024 0 - 0.5 ft N SPME
PCB-182	E1668C	**0.382 J**	**0.0853 J**	**0.0905 J**
PCB-183	E1668C	**47.533 J**	**10.538 J**	**8.743 J**
PCB-184	E1668C	**0.0247 J**	**0.00814 J**	**0.00775 J**
PCB-185	E1668C	**12.023 J**	**2.387 J**	**2.386 J**
PCB-186	E1668C	0.00317 UJ	**0.00194 J**	0.00164 UJ
PCB-187	E1668C	**113.209 J**	**24.615 J**	**22.307 J**
PCB-188	E1668C	**0.0718 J**	**0.0227 J**	**0.0312 J**
PCB-189	E1668C	**6.343 J**	**0.479 J**	**0.581 J**
PCB-190	E1668C	**26.165 J**	**3.159 J**	**3.52 J**
PCB-191	E1668C	**6.935 J**	**0.793 J**	**0.871 J**
PCB-192	E1668C	0.351 UJ	0.0338 UJ	0.0685 UJ
PCB-194	E1668C	**79.87 J**	**5.512 J**	**7.912 J**
PCB-195	E1668C	**25.358 J**	**2.617 J**	**3.192 J**
PCB-196	E1668C	**50.351 J**	**4.584 J**	**6.071 J**
PCB-197	E1668C	**2.086 J**	**0.344 J**	**0.383 J**
PCB-198/199	E1668C	**115.288 J**	**10.919 J**	**16.089 J**
PCB-200	E1668C	**8.593 J**	**1.36 J**	**1.452 J**
PCB-201	E1668C	**23.015 J**	**2.644 J**	**3.655 J**
PCB-202	E1668C	**14.793 J**	**2.239 J**	**2.917 J**
PCB-203	E1668C	**73.173 J**	**6.618 J**	**9.522 J**
PCB-204	E1668C	0.0286 UJ	0.00216 UJ	0.0113 UJ
PCB-205	E1668C	**11.379 J**	**0.557 J**	**0.936 J**
PCB-206	E1668C	**52.151 J**	**2.21 J**	**5.153 J**
PCB-207	E1668C	**3.395 J**	**0.308 J**	**0.51 J**
PCB-208	E1668C	**5.788 J**	**0.518 J**	**1.071 J**
PCB-209	E1668C	**1.765 J**	**0.114 J**	**0.328 J**
Total PCB Congener (U = 0 max limit)		**1700 J**	**510 J**	**310 J**

Attachment B-2
Baseline Sampling Results (Porewater [SPME])

Notes:

Bold: Detected result

Calculated values have been rounded to laboratory-reported significant digits

J: Estimated value

UJ: Compound analyzed for, but not detected above estimated detection limit

Attachment C
Data Validation Reports

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Seattle, Washington 98101
206.287.9130

ANCHOR QEA

Data Validation Report – EPA Stage 2A

April 23, 2025

Project: Housatonic Vernal Pool Pilot Study

Project Number: 240469-10.01

Validation ID: AQ-2025-0057

This report summarizes the review of analytical results for 21 sediment samples and 1 field duplicate sample collected in May 2024. The samples were collected by Anchor QEA and submitted to SGS Analytical (SGS) in Dayton, New Jersey. Samples were analyzed for the following parameters:

- Polychlorinated biphenyl Aroclors (PCBs) by U.S. Environmental Protection Agency (EPA) method 8082A
- Total Solids by Standard Method 2540G
- Total Organic Carbon (TOC) by method Lloyd Kahn Method

Sample IDs, matrices, analyses, and SGS sample delivery group numbers (SDGs) reviewed in this report are presented in Table 1.

Table 1
Sample IDs, SDGs, Matrices, and Analyses

Sample ID	Lab Sample ID	SDG	Matrix	Analyses
VP22-B-4/5-PSBL-SED	JD89613-1	JD89613	Soil	TOC, PCBs, Total Solids
VP22-FD-2	JD89613-10	JD89613	Soil	TOC, PCBs, Total Solids
VP22-C-4-PSBL-SED	JD89613-2	JD89613	Soil	TOC, PCBs, Total Solids
VP22-D-3-PSBL-SED	JD89613-3	JD89613	Soil	TOC, PCBs, Total Solids
VP22-F/G-3/4-PSBL-SED	JD89613-4	JD89613	Soil	TOC, PCBs, Total Solids
VP22-E-2-PSBL-SED	JD89613-5	JD89613	Soil	TOC, PCBs, Total Solids
VP22-F/G-2/3-PSBL-SED	JD89613-6	JD89613	Soil	TOC, PCBs, Total Solids
VP22-H-2-PSBL-SED	JD89613-7	JD89613	Soil	TOC, PCBs, Total Solids
VP22-I-3-PSBL-SED	JD89613-8	JD89613	Soil	TOC, PCBs, Total Solids
VP22-H-3/4-PSBL-SED	JD89613-9	JD89613	Soil	TOC, PCBs, Total Solids
VP15-H-12-PSBL-SED	JD89614-1	JD89614	Soil	TOC, PCBs, Total Solids
VP27-E/F-6-PSBL-SED	JD89614-10	JD89614	Soil	TOC, PCBs, Total Solids
VP27-F-5-PSBL-SED	JD89614-11	JD89614	Soil	TOC, PCBs, Total Solids
VP27-F-4-PSBL-SED	JD89614-12	JD89614	Soil	TOC, PCBs, Total Solids
VP15-I-15-PSBL-SED	JD89614-2	JD89614	Soil	TOC, PCBs, Total Solids

Sample ID	Lab Sample ID	SDG	Matrix	Analyses
VP15-H-14-PSBL-SED	JD89614-3	JD89614	Soil	TOC, PCBs, Total Solids
VP15-G-13-PSBL-SED	JD89614-4	JD89614	Soil	TOC, PCBs, Total Solids
VP12-B/C-4-PSBL-SED	JD89614-5	JD89614	Soil	TOC, PCBs, Total Solids
VP12-C-3-PSBL-SED	JD89614-6	JD89614	Soil	TOC, PCBs, Total Solids
VP12-B-2/3-PSBL-SED	JD89614-7	JD89614	Soil	TOC, PCBs, Total Solids
VP12-B/C-1/2-PSBL-SED	JD89614-8	JD89614	Soil	TOC, PCBs, Total Solids
VP12-C/D-4-PSBL-SED	JD89614-9	JD89614	Soil	TOC, PCBs, Total Solids

Data Validation and Qualifications

The following comments refer to the laboratory's performance in meeting the quality assurance/ quality control (QA/QC) guidelines outlined in the analytical procedures. Laboratory results were reviewed using the following guidelines:

- Field Sampling Plan/Quality Assurance Project Plan, Revision1 (Arcadis 2023)
- EPA Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846, Third Edition; EPA1986)
- Region I, EPA-New England Data Validation Functional Guidelines for Evaluating Environmental Analyses (EPA 1996)
- EPA National Functional Guidelines for Organic Superfund Methods Data Review (EPA 2020a)
- EPA National Functional Guidelines for Inorganic Superfund Methods Data Review (EPA 2020b)

Unless noted in this report, laboratory results for the samples listed above were within QC criteria.

Field Documentation

Field documentation was checked for completeness and accuracy. The chain-of-custody forms were signed by SGS at the time of sample receipt. Samples were received in good condition and within the recommended temperature range.

Sample Preservation and Holding Times

Samples were appropriately preserved and analyzed within the holding.

Laboratory Method Blanks

Laboratory method blanks were analyzed at the required frequencies and were free of target analytes.

Field Quality Control

Field Quality Control (QC) included two field duplicates. Field QC samples were collected at the required frequency.

Field Duplicates

One field duplicate was collected in association with these sample sets. Detected results are summarized in Table 2. Field duplicate relative percent difference (RPD) values were assessed by the 50% RPD according to the QAPP. Results that were less than five times the method reporting limit (MRL) were assessed by the difference between them using ± two times the MRL as the control limit. Field duplicate RPD or difference values were within control limits.

Table 2
Field Duplicate Summary

Analyte	VP22-I-3-PSBL-SED	VP22-FD-2	RPD
Aroclor 1260	1290 µg/kg	1640 µg/kg	24 %
TOC	65600 mg/kg	81900 mg/kg	22 %
Total solids	44.5%	39.9%	11 %

Surrogate Spike and Internal Standard Recoveries

Due to the inability to accurately quantify surrogates when a sample was analyzed at a dilution of 5x or greater, no data were qualified when surrogate recoveries were outside of control limits when a 5X dilution or greater was performed. When surrogate recoveries were outside of the control limits in one column, but results were reported from the other column; no data were qualified. Surrogates recovered outside of control limits in some laboratory QC samples, however; data are not qualified for surrogate outliers in QC samples alone or when outlying surrogates are associated with the non-reporting column. Surrogates recovered within project-required control limits with the following exceptions noted in Table 3.

Table 3
Surrogate Recovery Summary

Sample ID	Parameter	Surrogate	Recovery %	Acceptance Criteria %	Qualifier
VP15-H-14-PSBL-SED	PCBs	DCB	175	10-134	J for all detected results
VP12-B/C-4-PSBL-SED	PCBs	DCB	179	10-134	J for all detected results
VP15-H-12-PSBL-SED	PCBs	DCB	139	10-134	J for all detected results

Sample ID	Parameter	Surrogate	Recovery %	Acceptance Criteria %	Qualifier
VP15-I-15-PSBL-SED	PCBs	DCB	147	10-134	J for all detected results
VP22-I-3-PSBL-SED	PCBs	DCB	154	10-134	J for all detected results

Notes:
DCB: Decachlorobiphenyl

Column Confirmation Results

Second column confirmation results were within method requirements (40% RPD) for detected results.

Laboratory Control Samples and Laboratory Control Sample Duplicates

Laboratory control samples (LCS) and laboratory control sample duplicates (LCSD) were analyzed at the required frequency. LCS and LCSD recoveries and RPD values were within project-required control limits.

Matrix Spike and Matrix Spike Duplicate Samples

Matrix spike (MS) and matrix spike duplicate (MSD) samples were analyzed at the required frequencies. MS/MSD results reported for non-project samples were not evaluated. No data were qualified when native sample concentrations were greater than four times spike concentrations. No data were qualified when the recoveries and/or the RPD values were above the control limits and sample concentrations were not detected. Recoveries and/or RPD values were within project-required control limits.

Laboratory Duplicates

Laboratory duplicates were analyzed at the required frequency for total solids analysis and RPD values were within project-required control limits.

Method Reporting Limits

MRLs were acceptable as reported. All values were reported using the laboratory reporting limits. Values were reported as undiluted or when diluted, the reporting limit reflects the dilution factor.

Overall Assessment

As was determined by this evaluation, the laboratory followed the specified analytical methods and all requested sample analyses were completed. Accuracy was acceptable as demonstrated by the surrogate, LCS/LCSD, and MS/MSD recovery values, with the exceptions noted above. Precision was

acceptable as demonstrated by the LCS/LCSD, MS/MSD, and laboratory and field duplicate RPD or difference values, with the exceptions noted above. All data are acceptable as reported or qualified. Completeness was 100%; completeness goals were met. Table 4 summarizes the qualifiers applied to the sample results reviewed in this report.

Data Qualifier Definitions

J Indicates an estimated value.

Table 4
Data Qualification Summary

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
VP15-H-12-PSBL-SED	PCBs	Aroclor 1260	5990 µg/kg	5990J µg/kg	Surrogate %R above CL
VP15-I-15-PSBL-SED	PCBs	Aroclor 1260	6860 µg/kg	6860J µg/kg	Surrogate %R above CL
VP22-I-3-PSBL-SED	PCBs	Aroclor 1260	1290 µg/kg	1290J µg/kg	Surrogate %R above CL

Notes:
%R: percent recovery
CL: control limit
µg/kg: microgram per kilogram
mg/kg: milligram per kilogram

References

Arcadis, 2023. *Field Sampling Plan/Quality Assurance Project Plan, Revision 1*. Prepared for General Electric Company, Pittsfield, Massachusetts. December 2023.

EPA (U.S. Environmental Protection Agency), 1986. *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. EPA-530/SW-846.

EPA, 1996. *Region I, EPA-New England Data Validation Functional Guidelines for Evaluating Environmental Analyses*. USEPA-New England, Region I, Quality Assurance Unit Staff, Office of Environmental Measurement and Evaluation. July 1996, Revised December 1996.

EPA, 2020a. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. EPA-540-R-20-006. November 2020.

EPA, 2020b. USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. EPA 540-R-20-005. November 2020.

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Data Validation Report – EPA Stage 2A

April 23, 2025

Project: Housatonic Vernal Pool Pilot Study

Project Number: 240469-10.01

Validation ID: AQ-2025-0058

This report summarizes the review of analytical results for 5 solid-phase microextraction (SPME) fiber samples collected in May 2024. The samples were collected by Anchor QEA and submitted to SGS Analytical (SGS) in Wilmington, North Carolina. Samples were analyzed for the following parameters:

- Polychlorinated biphenyls congeners (PCBs) by U.S. Environmental Protection Agency (EPA) method 1668C

Sample IDs, matrices, analyses, and SGS sample delivery group numbers (SDGs) reviewed in this report are presented in Table 1.

Table 1
Sample IDs, SDGs, Matrices, and Analyses

Sample ID	Lab Sample ID	SDG	Matrix	Analyses (Methods)
HOUS-IN-SITU-SPME-QC-1-240522	B9476_21172_PCB_001-RJ	B9476	SPME	PCBs
HOUS-IN-SITU-SPME-QC-2-240522	B9476_21172_PCB_002-RJ	B9476	SPME	PCBs
HOUS-IN-SITU-SPME-QC-3-240522	B9476_21172_PCB_003-RJ	B9476	SPME	PCBs
HOUS-IN-SITU-SPME-QC-4-240522	B9476_21172_PCB_004-RJ	B9476	SPME	PCBs
HOUS-IN-SITU-SPME-QC-5-240522	B9476_21172_PCB_005-RJ	B9476	SPME	PCBs

Data Validation and Qualifications

The following comments refer to the laboratory's performance in meeting the quality assurance/ quality control (QA/QC) guidelines outlined in the analytical procedures. Laboratory results were reviewed using the following guidelines:

- Field Sampling Plan/Quality Assurance Project Plan, Revision1 (Arcadis 2023)

- EPA Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846, Third Edition; EPA1986)
- Region I, EPA-New England Data Validation Functional Guidelines for Evaluating Environmental Analyses (EPA 1996)
- EPA National Functional Guidelines for High Resolution Superfund Methods Data Review (EPA 2020)

Unless noted in this report, laboratory results for the samples listed above were within QC criteria.

Field Documentation

Field documentation was checked for completeness and accuracy. The chain-of-custody forms were signed by SGS at the time of sample receipt. Samples were received in good condition and within the recommended temperature range.

Sample Preservation and Holding Times

Samples were appropriately preserved and analyzed within the holding times.

Laboratory Method Blanks

Laboratory method blanks were analyzed at the required frequencies. PCBs were detected in every method blank. In instances where the sample concentration was not significantly greater than (5x greater than) the concentration of the method blank, the sample result was qualified “U”.

Field Quality Control

Field QC samples were not collected with this sample set.

Surrogates and Labeled Compounds Recoveries

Due to the inability to accurately quantify surrogates and labeled compounds when a sample was analyzed at a dilution of 5x or greater, no data were qualified when surrogate recoveries were outside of control limits. When surrogate recoveries were outside of the control limits in one column, but results were reported from the other column; no data were qualified. Surrogates recovered outside of control limits in some laboratory QC samples, however; data are not qualified for surrogate outliers in QC samples alone or when outlying surrogates are associated with the non-

reporting column. Surrogates and labeled compounds recovered within project-required control limits.

Laboratory Control Samples

Laboratory control samples (LCS) were analyzed at the required frequency. LCS recoveries were within project-required control limits.

Matrix Spike and Matrix Spike Duplicate Samples

Matrix spike (MS) and matrix spike duplicate (MSD) samples were not required for analysis since labeled compounds were added to all samples.

Laboratory Duplicates

Laboratory duplicates were not required to be analyzed for these sample sets.

Method Reporting Limits

MRLs were acceptable as reported. All values were reported using the laboratory reporting limits. Values were reported as undiluted or when diluted, the reporting limit reflects the dilution factor.

Estimated Maximum Possible Concentration

Some PCB congener results were flagged as estimated maximum possible concentration (EMPC) due to results that do not meet all method qualitative criteria for positive identification. Results have been qualified "J" to indicate they are estimated.

Overall Assessment

As was determined by this evaluation, the laboratory followed the specified analytical methods and all requested sample analyses were completed. Accuracy was acceptable as demonstrated by the surrogate, labeled compound, and LCS recovery values, with the exceptions noted above. All data are acceptable as reported or qualified. Completeness was 100%; completeness goals were met. Table 2 summarizes the qualifiers applied to the sample results reviewed in this report.

Data Qualifier Definitions

U Indicates the compound or analyte was analyzed for but not detected at or above the specified limit.

J Indicates an estimated value.

UJ Indicates the compound or analyte was analyzed for but not detected and the specified limit reported is estimated.

Table 2
Data Qualification Summary

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
Various	PCBs	Various	Various	Various	EMPC
HOUS-IN-SITU-SPME-QC-1-240522	PCBs	PCB-008	3.44J pg	3.44U pg	Method blank contamination
HOUS-IN-SITU-SPME-QC-1-240522	PCBs	PCB-011	12.8J pg	12.8U pg	Method blank contamination
HOUS-IN-SITU-SPME-QC-2-240522	PCBs	PCB-008	3.93J pg	3.93U pg	Method blank contamination
HOUS-IN-SITU-SPME-QC-2-240522	PCBs	PCB-011	11J pg	11U pg	Method blank contamination
HOUS-IN-SITU-SPME-QC-2-240522	PCBs	PCB-086/087/097/109/119/125	8.58J pg	8.58U pg	Method blank contamination
HOUS-IN-SITU-SPME-QC-2-240522	PCBs	PCB-090/101/113	13.2JEMPC pg	13.2UJ pg	Method blank contamination; EMPC
HOUS-IN-SITU-SPME-QC-2-240522	PCBs	PCB-095	11.2JEMPC pg	11.2UJ pg	Method blank contamination; EMPC
HOUS-IN-SITU-SPME-QC-3-240522	PCBs	PCB-011	10.3J pg	10.3U pg	Method blank contamination
HOUS-IN-SITU-SPME-QC-3-240522	PCBs	PCB-090/101/113	15.9J pg	15.9U pg	Method blank contamination
HOUS-IN-SITU-SPME-QC-3-240522	PCBs	PCB-095	18.4J pg	18.4U pg	Method blank contamination
HOUS-IN-SITU-SPME-QC-4-240522	PCBs	PCB-004	4.5J pg	4.5U pg	Method blank contamination
HOUS-IN-SITU-SPME-QC-4-240522	PCBs	PCB-008	4.01J pg	4.01U pg	Method blank contamination
HOUS-IN-SITU-SPME-QC-4-240522	PCBs	PCB-011	10.6J pg	10.6U pg	Method blank contamination
HOUS-IN-SITU-SPME-QC-5-240522	PCBs	PCB-008	2.69J pg	2.69U pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-IN-SITU-SPME-QC-5-240522	PCBs	PCB-011	10.6J pg	10.6U pg	Method blank contamination
HOUS-IN-SITU-SPME-QC-5-240522	PCBs	PCB-086/087/097/109/119/125	8.95JEMPC pg	8.95UJ pg	Method blank contamination; EMPC

Notes:
%R: percent recovery
EMPC: estimated maximum potential concentration
pg: picogram
pg/g: picogram per gram

References

Arcadis, 2023. *Field Sampling Plan/Quality Assurance Project Plan, Revision 1*. Prepared for General Electric Company, Pittsfield, Massachusetts. December 2023.

EPA (U.S. Environmental Protection Agency), 1986. *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. EPA-530/SW-846.

EPA, 1996. *Region I, EPA-New England Data Validation Functional Guidelines for Evaluating Environmental Analyses*. USEPA-New England, Region I, Quality Assurance Unit Staff, Office of Environmental Measurement and Evaluation. July 1996, Revised December 1996.

EPA, 2020. USEPA Contract Laboratory Program National Functional Guidelines for High Resolution Superfund Methods Data Review. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. EPA 542-R-20-007. November 2020.

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ANCHOR QEA

Data Validation Report – EPA Stage 2A

April 30, 2025

Project: Housatonic Vernal Pool Pilot Study

Project Number: 240469-10.01

Validation ID: AQ-2025-0063

This report summarizes the review of analytical results for 29 solid-phase microextraction (SPME) fiber samples and 2 field duplicates collected in July 2024. The samples were collected by Anchor QEA and submitted to SGS Analytical (SGS) in Wilmington, North Carolina. Samples were analyzed for the following parameters:

- Polychlorinated biphenyls congeners (PCBs) by U.S. Environmental Protection Agency (EPA) method 1668C

Sample IDs, matrices, analyses, and SGS sample delivery group numbers (SDGs) reviewed in this report are presented in Table 1.

Table 1
Sample IDs, SDGs, Matrices, and Analyses

Sample ID	Lab Sample ID	SDG	Matrix	Analyses (Methods)
HOUS-IN-SITU-SPME-VP15-G/H-9-240730	B9798_21387_PCB_001	B9798	SPME	PCBs
HOUS-IN-SITU-SPME-VP15-G-10-240730	B9798_21387_PCB_002	B9798	SPME	PCBs
HOUS-IN-SITU-SPME-VP15-G-11-240730	B9798_21387_PCB_003	B9798	SPME	PCBs
HOUS-IN-SITU-SPME-VP15-G-12-240730	B9798_21387_PCB_004	B9798	SPME	PCBs
HOUS-IN-SITU-SPME-VP15-H-12-240730	B9798_21387_PCB_005	B9798	SPME	PCBs
HOUS-IN-SITU-SPME-VP15-I-15-240730	B9798_21387_PCB_006	B9798	SPME	PCBs
HOUS-IN-SITU-SPME-VP15-H-14-240730	B9798_21387_PCB_007	B9798	SPME	PCBs
HOUS-IN-SITU-SPME-VP15-G-13-240730	B9798_21387_PCB_008	B9798	SPME	PCBs
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	B9798_21387_PCB_009	B9798	SPME	PCBs

Sample ID	Lab Sample ID	SDG	Matrix	Analyses (Methods)
HOUS-IN-SITU-SPME-VP12-B/C-4-240730	B9800_21386_PCB_001	B9800	SPME	PCBs
HOUS-IN-SITU-SPME-VP12-C-3-240730	B9800_21386_PCB_002	B9800	SPME	PCBs
HOUS-IN-SITU-SPME-VP12-B-2/3-240730	B9800_21386_PCB_003	B9800	SPME	PCBs
HOUS-IN-SITU-SPME-VP27-E/F-6-240730	B9801_21387_PCB_001	B9801	SPME	PCBs
HOUS-IN-SITU-SPME-VP27-F-4-240730	B9801_21387_PCB_003	B9801	SPME	PCBs
HOUS-IN-SITU-SPME-VP9-X-13-240730	B9802_21386_PCB_001	B9802	SPME	PCBs
HOUS-IN-SITU-SPME-VP9-V/W-14-240730	B9802_21386_PCB_002	B9802	SPME	PCBs
HOUS-IN-SITU-SPME-VP9-W/X-16-240730	B9802_21386_PCB_003	B9802	SPME	PCBs
HOUS-IN-SITU-SPME-VP9-X/Y-16-240730	B9802_21386_PCB_004	B9802	SPME	PCBs
HOUS-IN-SITU-SPME-VP9-W-17-240730	B9802_21386_PCB_005	B9802	SPME	PCBs
HOUS-IN-SITU-SPME-VP9-W-15-240730	B9802_21386_PCB_006-RJ	B9802	SPME	PCBs
HOUS-IN-SITU-SPME-VP9-V-15/16-240730	B9802_21386_PCB_007-RJ	B9802	SPME	PCBs
HOUS-IN-SITU-SPME-VP9-FL000954-240730	B9802_21386_PCB_008-RJ	B9802	SPME	PCBs
HOUS-IN-SITU-SPME-VP22-B-4/5-240730	B9803_21386_PCB_001-RJ	B9803	SPME	PCBs
HOUS-IN-SITU-SPME-VP22-C-4-240730	B9803_21386_PCB_002-RJ	B9803	SPME	PCBs
HOUS-IN-SITU-SPME-VP22-D-3-240730	B9803_21386_PCB_003-RJ	B9803	SPME	PCBs
HOUS-IN-SITU-SPME-VP22-F/G-3/4-240730	B9803_21386_PCB_004-RJ	B9803	SPME	PCBs
HOUS-IN-SITU-SPME-VP22-E-2-240730	B9803_21386_PCB_005-RJ	B9803	SPME	PCBs
HOUS-IN-SITU-SPME-VP22-H-2-240730	B9803_21386_PCB_006-RJ	B9803	SPME	PCBs
HOUS-IN-SITU-SPME-VP22-I-3-240730	B9803_21386_PCB_007-RJ	B9803	SPME	PCBs
HOUS-IN-SITU-SPME-VP22-H-3/4-240730	B9803_21386_PCB_008-RJ	B9803	SPME	PCBs

Sample ID	Lab Sample ID	SDG	Matrix	Analyses (Methods)
HOUS-IN-SITU-SPME-VP22-I-3-FD-240730	B9803_21386_PCB_009-RJ	B9803	SPME	PCBs

Data Validation and Qualifications

The following comments refer to the laboratory's performance in meeting the quality assurance/ quality control (QA/QC) guidelines outlined in the analytical procedures. Laboratory results were reviewed using the following guidelines:

- Field Sampling Plan/Quality Assurance Project Plan, Revision1 (Arcadis 2023)
- EPA Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846, Third Edition; EPA1986)
- Region I, EPA-New England Data Validation Functional Guidelines for Evaluating Environmental Analyses (EPA 1996)
- EPA National Functional Guidelines for High Resolution Superfund Methods Data Review (EPA 2020)

Unless noted in this report, laboratory results for the samples listed above were within QC criteria.

Field Documentation

Field documentation was checked for completeness and accuracy. The chain-of-custody forms were signed by SGS at the time of sample receipt. The chain-of-custody forms for SDG B9798, B9800, B9801, B9802, and B9803 were not signed by Anchor QEA prior to shipping to SGS. Samples were received in good condition and within the recommended temperature range with the following exceptions. Samples HOUS-IN-SITU-SPME-VP12-B/C-1/2-240730, HOUS-IN-SITU-SPME-VP9-X-14-240730, and HOUS-IN-SITU-SPME-VP22-F/G-2/3-240730 were not included in the shipment. Anchor QEA noted to SGS to not analyze samples HOUS-IN-SITU-SPME-VP12-C/D-4-240730 and HOUS-IN-SITU-SPME-VP27-F-5-240730. SGS noted that sample HOUS-IN-SITU-SPME-VP9-W/X-13/14-240730 was received broken. These six samples were not analyzed and are not included in this validation report. All samples from SDG B9798, B9800, B9801, B9802, and B9803 were received at 19.1°C. All results from B9798, B9800, B9801, B9802, and B9803 were qualified "J" or "UJ" to indicate they are estimated.

Sample Preservation and Holding Times

Samples were appropriately preserved. The extracts for all samples were analyzed outside of the project-required extraction holding time of 45 days. The sample results were qualified "J" or "UJ" to indicate they are estimated.

Laboratory Method Blanks

Laboratory method blanks were analyzed at the required frequencies. PCBs were detected in every method blank. In instances where the sample concentration was not significantly greater than (5x greater than) the concentration of the method blank, the sample result was qualified "U".

Field Quality Control

Field QC included two field duplicates. Field QC samples were collected at the required frequency.

Field Duplicates

Two field duplicates were collected in association with these sample sets. Detected results are summarized in Table 2. Field duplicate relative percent difference (RPD) values were assessed by the 50% RPD according to the QAPP. Results that were less than five times the method reporting limit (MRL) were assessed by the difference between them using ± two times the MRL as the control limit Field duplicate RPD and difference values were within control limits with some exceptions. Sample results and duplicate results that did not meet control limits were qualified "J" or "UJ" as estimated.

Table 2
Field Duplicate Summary

Analyte	HOUS-IN-SITU-SPME-VP15-G-10-240730	HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	RPD	Difference	Difference CL
PCB-004	194 pg	206 pg	6%	--	--
PCB-006	11.3J pg	12J pg	--	0.7 pg	20 pg
PCB-008	11J pg	18.4J pg	--	7.4 pg	20 pg
PCB-010	16.7J pg	15.7J pg	--	1 pg	20 pg
PCB-011	23.4 pg	20.7 pg	--	2.7 pg	20 pg
PCB-015	35.8 pg	34.6 pg	--	1.2 pg	20 pg
PCB-016	19.1J pg	18.4J pg	--	0.7 pg	20 pg
PCB-017	912 pg	429 pg	72%	--	--
PCB-018/030	732 pg	281 pg	89%	--	--
PCB-019	1140 pg	555 pg	69%	--	--
PCB-020/028	388 pg	286 pg	30%	--	--
PCB-021/033	1040 pg	314 pg	107%	--	--
PCB-025	881 pg	430 pg	69%	--	--
PCB-026/029	613 pg	315 pg	64%	--	--
PCB-027	1130 pg	497 pg	78%	--	--
PCB-031	209 pg	183 pg	13%	--	--
PCB-032	2490 pg	575 pg	125%	--	--

Analyte	HOUS-IN-SITU-SPME-VP15-G-10-240730	HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	RPD	Difference	Difference CL
PCB-037	12.8U pg	38 pg	--	25.2 pg	20 pg
PCB-040/071	2720 pg	1520 pg	57%	--	--
PCB-042	772 pg	594 pg	26%	--	--
PCB-043	69.5 pg	11.8U pg	--	57.7 pg	20 pg
PCB-044/047/065	41300 pg	22600 pg	59%	--	--
PCB-045	14.6U pg	257 pg	--	242.4 pg	20 pg
PCB-046	823 pg	389 pg	72%	--	--
PCB-048	42.5 pg	11.8U pg	--	30.7 pg	20 pg
PCB-049/069	24600 pg	15700 pg	44%	--	--
PCB-050/053	30400 pg	14300 pg	72%	--	--
PCB-051	33000 pg	9460 pg	111%	--	--
PCB-052	15700 pg	9790 pg	46%	--	--
PCB-054	7730 pg	1800 pg	124%	--	--
PCB-056	95.5 pg	113 pg	--	17.5 pg	20 pg
PCB-059/062/075	1190 pg	655 pg	58%	--	--
PCB-060	29.4U pg	25.2 pg	--	4.2 pg	20 pg
PCB-061/070/074/076	1680 pg	1690 pg	1%	--	--
PCB-063	89.9 pg	63.5 pg	--	26.4 pg	20 pg
PCB-064	600 pg	564 pg	6%	--	--
PCB-066	1230 pg	1150 pg	7%	--	--
PCB-067	23.7U pg	80.6 pg	--	56.9 pg	20 pg
PCB-068	531 pg	334 pg	46%	--	--
PCB-072	312 pg	255 pg	20%	--	--
PCB-073	1480 pg	947 pg	44%	--	--
PCB-077	61.2 pg	93.1 pg	--	31.9 pg	20 pg
PCB-079	65.6 pg	57.1 pg	--	8.5 pg	20 pg
PCB-082	378 pg	400 pg	6%	--	--
PCB-083	431 pg	352 pg	20%	--	--
PCB-084	1580 pg	1530 pg	3%	--	--
PCB-085/116	1650 pg	1500 pg	10%	--	--
PCB-086/087/097/109/119/125	6940 pg	6030 pg	14%	--	--
PCB-090/101/113	24800 pg	21600 pg	14%	--	--
PCB-091	11100 pg	8790 pg	23%	--	--
PCB-092	7420 pg	6110 pg	19%	--	--
PCB-093/100	9080 pg	3900 pg	80%	--	--
PCB-094	2710 pg	1590 pg	52%	--	--

Analyte	HOUS-IN-SITU-SPME-VP15-G-10-240730	HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	RPD	Difference	Difference CL
PCB-095	17200 pg	17000 pg	1%	--	--
PCB-096	1520 pg	1090 pg	33%	--	--
PCB-098	257 pg	158 pg	48%	--	--
PCB-099	9270 pg	7390 pg	23%	--	--
PCB-102	1380 pg	720 pg	63%	--	--
PCB-103	4590 pg	2580 pg	56%	--	--
PCB-104	1240 pg	303 pg	121%	--	--
PCB-105	1560 pg	1590 pg	2%	--	--
PCB-107	600 pg	565 pg	6%	--	--
PCB-108/124	303 pg	288 pg	5%	--	--
PCB-110	12500 pg	12100 pg	3%	--	--
PCB-111	50.6U pg	47.9 pg	--	2.7 pg	20 pg
PCB-114	97.9 pg	85.1 pg	--	12.8 pg	20 pg
PCB-117	1160 pg	645 pg	57%	--	--
PCB-118	5220 pg	5080 pg	3%	--	--
PCB-120	183 pg	129 pg	35%	--	--
PCB-121	167 pg	94.9 pg	--	72.1 pg	20 pg
PCB-122	75.6 pg	84.2 pg	--	8.6 pg	20 pg
PCB-123	111 pg	106 pg	5%	--	--
PCB-126	26.9 pg	36.6 pg	--	9.7 pg	20 pg
PCB-128/166	2970 pg	2620 pg	13%	--	--
PCB-129/138/163	31700 pg	30600 pg	4%	--	--
PCB-130	1760 pg	1600 pg	10%	--	--
PCB-131	206 pg	227 pg	10%	--	--
PCB-132	8340 pg	8460 pg	1%	--	--
PCB-133	1020 pg	792 pg	25%	--	--
PCB-134	2040 pg	1820 pg	11%	--	--
PCB-135/151	23600 pg	21900 pg	7%	--	--
PCB-136	8410 pg	7620 pg	10%	--	--
PCB-137	500 pg	541 pg	8%	--	--
PCB-139/140	529 pg	408 pg	26%	--	--
PCB-141	7150 pg	6960 pg	3%	--	--
PCB-144	2020 pg	2020 pg	0%	--	--
PCB-145	9.54J pg	3.67U pg	--	5.87 pg	20 pg
PCB-146	6480 pg	5540 pg	16%	--	--
PCB-147/149	41400 pg	38400 pg	8%	--	--

Analyte	HOUS-IN-SITU-SPME-VP15-G-10-240730	HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	RPD	Difference	Difference CL
PCB-148	546 pg	303 pg	57%	--	--
PCB-150	752 pg	426 pg	55%	--	--
PCB-152	527 pg	279 pg	62%	--	--
PCB-153/168	34900 pg	33100 pg	5%	--	--
PCB-154	2070 pg	1360 pg	41%	--	--
PCB-155	75.5 pg	27.3 pg	--	48.2 pg	20 pg
PCB-156/157	1070 pg	1070 pg	0%	--	--
PCB-158	2280 pg	2310 pg	1%	--	--
PCB-159	552 pg	444 pg	22%	--	--
PCB-162	72.3 pg	73.8 pg	--	1.5 pg	20 pg
PCB-164	2260 pg	2200 pg	3%	--	--
PCB-165	174 pg	3.92U pg	--	170.08 pg	20 pg
PCB-167	609 pg	552 pg	10%	--	--
PCB-169	22.8U pg	51.7 pg	--	28.9 pg	20 pg
PCB-170	6520 pg	5680 pg	14%	--	--
PCB-171/173	3000 pg	2560 pg	16%	--	--
PCB-172	1640 pg	1390 pg	17%	--	--
PCB-174	12700 pg	10500 pg	19%	--	--
PCB-175	535 pg	427 pg	22%	--	--
PCB-176	2380 pg	1810 pg	27%	--	--
PCB-177	6460 pg	5500 pg	16%	--	--
PCB-178	4480 pg	3550 pg	23%	--	--
PCB-179	8970 pg	7090 pg	23%	--	--
PCB-180/193	17900 pg	15200 pg	16%	--	--
PCB-181	51.8 pg	39 pg	--	12.8 pg	20 pg
PCB-182	93.2 pg	52.7 pg	--	40.5 pg	20 pg
PCB-183	6430 pg	5010 pg	25%	--	--
PCB-185	1450 pg	1510 pg	4%	--	--
PCB-187	16700 pg	13400 pg	22%	--	--
PCB-188	125 pg	45.2 pg	--	79.8 pg	20 pg
PCB-189	170 pg	179 pg	5%	--	--
PCB-190	1570 pg	1400 pg	11%	--	--
PCB-191	353 pg	327 pg	8%	--	--
PCB-194	2080 pg	1760 pg	17%	--	--
PCB-195	1200 pg	1040 pg	14%	--	--
PCB-196	1910 pg	1560 pg	20%	--	--

Analyte	HOUS-IN-SITU-SPME-VP15-G-10-240730	HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	RPD	Difference	Difference CL
PCB-197	202 pg	163 pg	21%	--	--
PCB-198/199	4350 pg	3600 pg	19%	--	--
PCB-200	883 pg	718 pg	21%	--	--
PCB-201	789 pg	584 pg	30%	--	--
PCB-202	1160 pg	903 pg	25%	--	--
PCB-203	2440 pg	1920 pg	24%	--	--
PCB-205	136 pg	120 pg	13%	--	--
PCB-206	418 pg	350 pg	18%	--	--
PCB-207	83.6 pg	70.1 pg	--	13.5 pg	20 pg
PCB-208	133 pg	105 pg	24%	--	--
PCB-209	20.1 pg	17.1J pg	--	3 pg	20 pg

Analyte	HOUS-IN-SITU-SPME-VP22-I-3-240730	HOUS-IN-SITU-SPME-VP22-I-3-FD-240730	RPD	Difference	Difference CL
PCB-001	5.68J pg	4.4U pg	--	1.28 pg	20 pg
PCB-004	25.2 pg	23.2 pg	--	2 pg	20 pg
PCB-006	11.6J pg	9.25U pg	--	2.35 pg	20 pg
PCB-008	35.3 pg	27.3 pg	--	8 pg	20 pg
PCB-011	23.1 pg	19.4J pg	--	3.7 pg	20 pg
PCB-015	12.9J pg	12.5J pg	--	0.4 pg	20 pg
PCB-017	39.6 pg	31.3 pg	--	8.3 pg	20 pg
PCB-018/030	41 pg	30.9J pg	--	10.1 pg	40 pg
PCB-019	33.4 pg	23.8 pg	--	9.6 pg	20 pg
PCB-020/028	49.1 pg	38J pg	--	11.1 pg	40 pg
PCB-021/033	26.6J pg	14.2J pg	--	12.4 pg	40 pg
PCB-022	11.4J pg	11.9U pg	--	0.5 pg	20 pg
PCB-025	19J pg	12U pg	--	7 pg	20 pg
PCB-026/029	31.3J pg	25.3J pg	--	6 pg	40 pg
PCB-027	18.2J pg	13.8J pg	--	4.4 pg	20 pg
PCB-031	69.3 pg	39.9 pg	--	29.4 pg	20 pg
PCB-032	16.9J pg	12.1J pg	--	4.8 pg	20 pg
PCB-037	21 pg	15.2J pg	--	5.8 pg	20 pg
PCB-040/071	56.4 pg	40.3 pg	--	16.1 pg	40 pg
PCB-042	34.7 pg	24.8 pg	--	9.9 pg	20 pg
PCB-044/047/065	974 pg	1040 pg	7%	--	--

Analyte	HOUS-IN-SITU-SPME-VP22-I-3-240730	HOUS-IN-SITU-SPME-VP22-I-3-FD-240730	RPD	Difference	Difference CL
PCB-048	9.75J pg	9.57U pg	--	0.18 pg	20 pg
PCB-049/069	1720 pg	1940 pg	12%	--	--
PCB-050/053	227 pg	162 pg	--	65 pg	40 pg
PCB-051	200 pg	129 pg	43%	--	--
PCB-052	1380 pg	1190 pg	15%	--	--
PCB-054	37.9 pg	22.5 pg	--	15.4 pg	20 pg
PCB-056	68.1 pg	51.5 pg	--	16.6 pg	20 pg
PCB-059/062/075	123 pg	158 pg	--	35 pg	60 pg
PCB-060	25.9U pg	21.8 pg	--	4.1 pg	20 pg
PCB-061/070/074/076	1320 pg	1130 pg	16%	--	--
PCB-063	29.9 pg	28.7 pg	--	1.2 pg	20 pg
PCB-064	496 pg	511 pg	3%	--	--
PCB-066	644 pg	547 pg	16%	--	--
PCB-068	186 pg	208 pg	11%	--	--
PCB-072	242 pg	309 pg	24%	--	--
PCB-073	35.6 pg	47.6 pg	--	12 pg	20 pg
PCB-077	115 pg	95.8 pg	--	19.2 pg	20 pg
PCB-079	60.2 pg	66.5 pg	--	6.3 pg	20 pg
PCB-082	262 pg	269 pg	3%	--	--
PCB-084	291 pg	281 pg	4%	--	--
PCB-085/116	3030 pg	3250 pg	7%	--	--
PCB-086/087/097/109/119/125	6510 pg	6880 pg	6%	--	--
PCB-090/101/113	20400 pg	21100 pg	3%	--	--
PCB-091	2740 pg	3180 pg	15%	--	--
PCB-092	6060 pg	7140 pg	16%	--	--
PCB-093/100	523 pg	728 pg	33%	--	--
PCB-094	50.7 pg	68.4 pg	--	17.7 pg	20 pg
PCB-095	9520 pg	10900 pg	14%	--	--
PCB-096	31.5 pg	29.9 pg	--	1.6 pg	20 pg
PCB-099	9370 pg	10800 pg	14%	--	--
PCB-102	99.7 pg	82.9 pg	--	16.8 pg	20 pg
PCB-103	819 pg	1160 pg	34%	--	--
PCB-104	24.6 pg	29.8 pg	--	5.2 pg	20 pg
PCB-105	2020 pg	2000 pg	1%	--	--
PCB-107	881 pg	867 pg	2%	--	--
PCB-108/124	623 pg	628 pg	1%	--	--

Analyte	HOUS-IN-SITU-SPME-VP22-I-3-240730	HOUS-IN-SITU-SPME-VP22-I-3-FD-240730	RPD	Difference	Difference CL
PCB-110	19500 pg	20600 pg	5%	--	--
PCB-111	53.8 pg	55.1 pg	--	1.3 pg	20 pg
PCB-112	14.9U pg	16.8J pg	--	1.9 pg	20 pg
PCB-114	119 pg	100 pg	--	19 pg	20 pg
PCB-117	515 pg	623 pg	19%	--	--
PCB-118	8460 pg	7940 pg	6%	--	--
PCB-120	191 pg	205 pg	7%	--	--
PCB-121	40.2 pg	58.4 pg	--	18.2 pg	20 pg
PCB-122	123 pg	123 pg	0%	--	--
PCB-123	197 pg	215 pg	9%	--	--
PCB-126	41.6 pg	34.8 pg	--	6.8 pg	20 pg
PCB-127	58 pg	63.8 pg	--	5.8 pg	20 pg
PCB-128/166	3730 pg	3830 pg	3%	--	--
PCB-129/138/163	40600 pg	43000 pg	6%	--	--
PCB-130	2250 pg	2360 pg	5%	--	--
PCB-131	264 pg	264 pg	0%	--	--
PCB-132	10300 pg	11000 pg	7%	--	--
PCB-133	982 pg	1120 pg	13%	--	--
PCB-134	1920 pg	2200 pg	14%	--	--
PCB-135/151	25400 pg	29100 pg	14%	--	--
PCB-136	7040 pg	8250 pg	16%	--	--
PCB-137	907 pg	994 pg	9%	--	--
PCB-139/140	709 pg	782 pg	10%	--	--
PCB-141	7660 pg	7630 pg	0%	--	--
PCB-144	2380 pg	2550 pg	7%	--	--
PCB-146	7450 pg	8020 pg	7%	--	--
PCB-147/149	47900 pg	52700 pg	10%	--	--
PCB-148	245 pg	321 pg	27%	--	--
PCB-150	212 pg	265 pg	22%	--	--
PCB-152	76.7 pg	106 pg	--	29.3 pg	20 pg
PCB-153/168	45100 pg	47800 pg	6%	--	--
PCB-154	1260 pg	1550 pg	21%	--	--
PCB-155	11.1J pg	17.3J pg	--	6.2 pg	20 pg
PCB-156/157	1270 pg	1220 pg	4%	--	--
PCB-158	2750 pg	2850 pg	4%	--	--
PCB-159	541 pg	560 pg	3%	--	--

Analyte	HOUS-IN-SITU-SPME-VP22-I-3-240730	HOUS-IN-SITU-SPME-VP22-I-3-FD-240730	RPD	Difference	Difference CL
PCB-162	99.9 pg	102 pg	--	2.1 pg	20 pg
PCB-164	2590 pg	2690 pg	4%	--	--
PCB-165	101 pg	106 pg	5%	--	--
PCB-167	762 pg	774 pg	2%	--	--
PCB-169	58.5 pg	59.7 pg	--	1.2 pg	20 pg
PCB-170	5610 pg	5570 pg	1%	--	--
PCB-171/173	2720 pg	2690 pg	1%	--	--
PCB-172	1440 pg	1430 pg	1%	--	--
PCB-174	10900 pg	11300 pg	4%	--	--
PCB-175	427 pg	439 pg	3%	--	--
PCB-176	2170 pg	2170 pg	0%	--	--
PCB-177	6330 pg	6330 pg	0%	--	--
PCB-178	4090 pg	4300 pg	5%	--	--
PCB-179	8380 pg	9230 pg	10%	--	--
PCB-180/193	14300 pg	13900 pg	3%	--	--
PCB-181	62.8 pg	63.9 pg	--	1.1 pg	20 pg
PCB-182	63.9 pg	18.2U pg	--	45.7 pg	20 pg
PCB-183	5510 pg	5510 pg	0%	--	--
PCB-185	1820 pg	1660 pg	9%	--	--
PCB-187	15900 pg	16500 pg	4%	--	--
PCB-188	37.4 pg	46.2 pg	--	8.8 pg	20 pg
PCB-189	163 pg	149 pg	9%	--	--
PCB-190	1250 pg	1280 pg	2%	--	--
PCB-191	274 pg	248 pg	10%	--	--
PCB-194	1640 pg	1480 pg	10%	--	--
PCB-195	1060 pg	978 pg	8%	--	--
PCB-196	1360 pg	1300 pg	5%	--	--
PCB-197	164 pg	155 pg	6%	--	--
PCB-198/199	3410 pg	3510 pg	3%	--	--
PCB-200	738 pg	783 pg	6%	--	--
PCB-201	639 pg	624 pg	2%	--	--
PCB-202	1050 pg	1130 pg	7%	--	--
PCB-203	1960 pg	1970 pg	1%	--	--
PCB-205	111 pg	97.4 pg	--	13.6 pg	20 pg
PCB-206	432 pg	356 pg	19%	--	--
PCB-207	77.9 pg	72.1 pg	--	5.8 pg	20 pg

Analyte	HOUS-IN-SITU-SPME-VP22-I-3-240730	HOUS-IN-SITU-SPME-VP22-I-3-FD-240730	RPD	Difference	Difference CL
PCB-208	160 pg	137 pg	15%	--	--
PCB-209	43.5 pg	30.7 pg	--	12.8 pg	20 pg

Notes:
CL: control limit
pg/g: picogram per gram

Surrogates and Labeled Compounds Recoveries

Due to the inability to accurately quantify surrogates and labeled compounds when a sample was analyzed at a dilution of 5x or greater, no data were qualified when surrogate recoveries were outside of control limits. Surrogates and labeled compounds recovered within project-required control limits.

Laboratory Control Samples

Laboratory control samples (LCS) were analyzed at the required frequency. LCS recoveries were within project-required control limits.

Matrix Spike and Matrix Spike Duplicate Samples

Matrix spike (MS) and matrix spike duplicate (MSD) samples were not required for analysis since labeled compounds were added to all samples.

Laboratory Duplicates

Laboratory duplicates were not required to be analyzed for these sample sets.

Method Reporting Limits

MRLs were acceptable as reported. All values were reported using the laboratory reporting limits. Values were reported as undiluted or when diluted, the reporting limit reflects the dilution factor.

Sample Analyses

Several results were noted by the laboratory to have exceeded the calibration. These results were qualified “J” as estimated.

Estimated Maximum Possible Concentration

Some PCB congener results were flagged as estimated maximum possible concentration (EMPC) due to results that do not meet all method qualitative criteria for positive identification. Results have been qualified “J” or “UJ” to indicate they are estimated.

Overall Assessment

As was determined by this evaluation, the laboratory followed the specified analytical methods and all requested sample analyses were completed. Accuracy was acceptable as demonstrated by the surrogate, labeled compounds, and LCS recovery values, with the exceptions noted above. All data are acceptable as reported or qualified; completeness was 100%. Table 3 summarizes the qualifiers applied to the sample results reviewed in this report.

Data Qualifier Definitions

U Indicates the compound or analyte was analyzed for but not detected at or above the specified limit.

J Indicates an estimated value.

UJ Indicates the compound or analyte was analyzed for but not detected and the specified limit reported is estimated.

Table 3
Data Qualification Summary

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
All	PCBs	All PCBs	Various	Various	Extraction Holding Time Exceedance
Various	PCBs	Various	Various	Various	EMPC
Various	PCBs	Various	Various	Various	Calibration Exceeded
HOUS-IN-SITU-SPME-VP15-G/H-9-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP15-G/H-9-240730	PCBs	PCB-011	23.8 pg	23.8UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-017	912 pg	912J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-018/030	732 pg	732J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-019	1140 pg	1140J pg	FD RPD above CL

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-021/033	1040 pg	1040J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-025	881 pg	881J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-026/029	613 pg	613J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-027	1130 pg	1130J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-032	2490 pg	2490J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-037	12.8U pg	12.8UJ pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-040/071	2720 pg	2720J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-043	69.5 pg	69.5J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-044/047/065	41300 pg	41300J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-045	14.6U pg	14.6UJ pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-046	823 pg	823J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-048	42.5 pg	42.5J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-050/053	30400 pg	30400J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-051	33000 pg	33000J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-054	7730 pg	7730J pg	FD RPD above CL

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-059/062/075	1190 pg	1190J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-063	89.9 pg	89.9J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-067	23.7U pg	23.7UJ pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-077	61.2 pg	61.2J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-093/100	9080 pg	9080J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-094	2710 pg	2710J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-102	1380 pg	1380J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-103	4590 pg	4590J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-104	1240 pg	1240J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-117	1160 pg	1160J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-121	167 pg	167J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-148	546 pg	546J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-150	752 pg	752J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-152	527 pg	527J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-155	75.5 pg	75.5J pg	FD RPD above CL

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-165	174 pg	174J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-169	22.8U pg	22.8UJ pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-182	93.2 pg	93.2J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-188	125 pg	125J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-240730	PCBs	PCB-011	23.4 pg	23.4UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-155	27.3EMPC pg	27.3J pg	FD Difference above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-188	45.2EMPC pg	45.2J pg	FD Difference above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-017	429 pg	429J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-018/030	281 pg	281J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-019	555 pg	555J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-021/033	314 pg	314J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-025	430 pg	430J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-026/029	315 pg	315J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-027	497 pg	497J pg	FD RPD above CL

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-032	575 pg	575J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-037	38 pg	38J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-040/071	1520 pg	1520J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-043	11.8U pg	11.8UJ pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-044/047/065	22600 pg	22600J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-045	257 pg	257J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-046	389 pg	389J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-048	11.8U pg	11.8UJ pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-050/053	14300 pg	14300J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-051	9460 pg	9460J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-054	1800 pg	1800J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-059/062/075	655 pg	655J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-063	63.5 pg	63.5J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-067	80.6 pg	80.6J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-077	93.1 pg	93.1J pg	FD RPD above CL

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-093/100	3900 pg	3900J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-094	1590 pg	1590J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-102	720 pg	720J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-103	2580 pg	2580J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-104	303 pg	303J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-117	645 pg	645J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-121	94.9 pg	94.9J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-148	303 pg	303J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-150	426 pg	426J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-152	279 pg	279J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-165	3.92U pg	3.92UJ pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-169	51.7 pg	51.7J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-182	52.7 pg	52.7J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP15-G-10-FD-240730	PCBs	PCB-011	20.7 pg	20.7UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP15-G-11-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-IN-SITU-SPME-VP15-G-11-240730	PCBs	PCB-011	27 pg	27UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP15-G-12-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP15-G-12-240730	PCBs	PCB-011	24.2 pg	24.2UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP15-G-13-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP15-G-13-240730	PCBs	PCB-011	29.4 pg	29.4UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP15-H-12-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP15-H-12-240730	PCBs	PCB-011	24.1 pg	24.1UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP15-H-14-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP15-H-14-240730	PCBs	PCB-011	30.6EMPC pg	30.6UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP15-I-15-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP15-I-15-240730	PCBs	PCB-011	26.9 pg	26.9UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP12-B/C-4-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP12-B/C-4-240730	PCBs	PCB-011	18.5J pg	18.5UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP12-B/C-4-240730	PCBs	PCB-126	16.8J pg	16.8UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP12-B/C-4-240730	PCBs	PCB-169	16.8J pg	16.8UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-IN-SITU-SPME-VP12-B-2/3-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP12-B-2/3-240730	PCBs	PCB-011	22.1 pg	22.1UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP12-C-3-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP12-C-3-240730	PCBs	PCB-011	18.2J pg	18.2UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP12-C-3-240730	PCBs	PCB-126	42.7EMPC pg	42.7UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP27-E/F-6-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP27-E/F-6-240730	PCBs	PCB-011	22.1 pg	22.1UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP27-F-4-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP27-F-4-240730	PCBs	PCB-011	25.2 pg	25.2UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP9-FL000954-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP9-FL000954-240730	PCBs	PCB-011	24.3 pg	24.3UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP9-V/W-14-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP9-V/W-14-240730	PCBs	PCB-011	19.7J pg	19.7UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP9-V-15/16-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP9-V-15/16-240730	PCBs	PCB-011	19.6J pg	19.6UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-IN-SITU-SPME-VP9-W/X-16-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP9-W/X-16-240730	PCBs	PCB-011	17.9J pg	17.9UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP9-W/X-16-240730	PCBs	PCB-126	31EMPC pg	31UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP9-W-15-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP9-W-15-240730	PCBs	PCB-011	15.7J pg	15.7UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP9-W-17-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP9-W-17-240730	PCBs	PCB-011	20.9 pg	20.9UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP9-X/Y-16-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP9-X/Y-16-240730	PCBs	PCB-011	33.5 pg	33.5UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP9-X-13-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP9-X-13-240730	PCBs	PCB-011	23.9 pg	23.9UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP9-X-13-240730	PCBs	PCB-169	32.8 pg	32.8UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP9-X-13-240730	PCBs	PCB-126	30.6EMPC pg	30.6UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP22-B-4/5-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP22-B-4/5-240730	PCBs	PCB-011	17.2J pg	17.2UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-IN-SITU-SPME-VP22-B-4/5-240730	PCBs	PCB-126	27.5 pg	27.5UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP22-C-4-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP22-C-4-240730	PCBs	PCB-011	16.2J pg	16.2UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP22-C-4-240730	PCBs	PCB-126	37.9 pg	37.9UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP22-D-3-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP22-D-3-240730	PCBs	PCB-011	24.1 pg	24.1UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP22-D-3-240730	PCBs	PCB-126	34.4 pg	34.4UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP22-D-3-240730	PCBs	PCB-169	42.1EMPC pg	42.1UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP22-E-2-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP22-E-2-240730	PCBs	PCB-011	18.2J pg	18.2UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP22-E-2-240730	PCBs	PCB-126	22.8 pg	22.8UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP22-E-2-240730	PCBs	PCB-169	33.8EMPC pg	33.8UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP22-F/G-3/4-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP22-F/G-3/4-240730	PCBs	PCB-011	11.8J pg	11.8UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP22-F/G-3/4-240730	PCBs	PCB-126	37.4EMPC pg	37.4UJ pg	Method blank contamination

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-IN-SITU-SPME-VP22-H-2-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP22-H-2-240730	PCBs	PCB-011	20.9 pg	20.9UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP22-H-3/4-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP22-H-3/4-240730	PCBs	PCB-011	20.6 pg	20.6UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP22-I-3-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP22-I-3-240730	PCBs	PCB-031	69.3 pg	69.3J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP22-I-3-240730	PCBs	PCB-050/053	227 pg	227J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP22-I-3-240730	PCBs	PCB-152	76.7 pg	76.7J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP22-I-3-240730	PCBs	PCB-182	63.9 pg	63.9J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP22-I-3-240730	PCBs	PCB-011	23.1 pg	23.1UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP22-I-3-240730	PCBs	PCB-126	41.6EMPC pg	41.6UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP22-I-3-FD-240730	PCBs	All PCBs	Various	Various	Cooler Temperature Exceedance
HOUS-IN-SITU-SPME-VP22-I-3-FD-240730	PCBs	PCB-031	39.9EMPC pg	39.9J pg	FD Difference above CL
HOUS-IN-SITU-SPME-VP22-I-3-FD-240730	PCBs	PCB-050/053	162 pg	162J pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP22-I-3-FD-240730	PCBs	PCB-152	106 pg	106J pg	FD RPD above CL

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
HOUS-IN-SITU-SPME-VP22-I-3-FD-240730	PCBs	PCB-182	18.2U pg	18.2UJ pg	FD RPD above CL
HOUS-IN-SITU-SPME-VP22-I-3-FD-240730	PCBs	PCB-011	19.4J pg	19.4UJ pg	Method blank contamination
HOUS-IN-SITU-SPME-VP22-I-3-FD-240730	PCBs	PCB-126	34.8 pg	34.8UJ pg	Method blank contamination

Notes:
EMPC: estimated maximum potential concentration
FD: field duplicate
pg: picogram

References

Arcadis, 2023. *Field Sampling Plan/Quality Assurance Project Plan, Revision 1*. Prepared for General Electric Company, Pittsfield, Massachusetts. December 2023.

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ANCHOR QEA

Data Validation Report – EPA Stage 2B

December 2, 2024

Project: Housatonic Vernal Pool Pilot Study

Project Number: 240469-10.01

Validation ID: AQ-2025-0060

This report summarizes the review of analytical results for 14 sediment samples, and 1 field duplicate sample collected in May 2024. The samples were collected by Anchor QEA and submitted to SGS Analytical (SGS) in Dayton, New Jersey. Samples were analyzed for the following parameters:

- Polychlorinated biphenyl Aroclors (PCBs) by U.S. Environmental Protection Agency (EPA) method 8082A
- Total Solids (TS) by Standard Method 2540G
- Total Organic Carbon (TOC) by method Lloyd Kahn

Sample IDs, matrices, analyses, and SGS sample delivery group numbers (SDGs) reviewed in this report are presented in Table 1.

Table 1
Sample IDs, SDGs, Matrices, and Analyses

Sample ID	Lab Sample ID	SDG	Matrix	Analyses (Methods)
VP15-FD-1	JD89486-15	JD89486	Soil	PCBs, TS, TOC
VP15-G-10-PSBL-SED	JD89486-12	JD89486	Soil	PCBs, TS, TOC
VP15-G-11-PSBL-SED	JD89486-13	JD89486	Soil	PCBs, TS, TOC
VP15-G-12-PSBL-SED	JD89486-14	JD89486	Soil	PCBs, TS, TOC
VP15-G/H-9-PSBL-SED	JD89486-11	JD89486	Soil	PCBs, TS, TOC
VP9-FL000954-PSBL-SED	JD89486-3	JD89486	Soil	PCBs, TS, TOC
VP9-V-15/16-PSBL-SED	JD89486-2	JD89486	Soil	PCBs, TS, TOC
VP9-V/W-14-PSBL-SED	JD89486-6	JD89486	Soil	PCBs, TS, TOC
VP9-W-15-PSBL-SED	JD89486-4	JD89486	Soil	PCBs, TS, TOC
VP9-W-17-PSBL-SED	JD89486-1	JD89486	Soil	PCBs, TS, TOC
VP9-W/X-13/14-PSBL-SED	JD89486-8	JD89486	Soil	PCBs, TS, TOC
VP9-W/X-16-PSBL-SED	JD89486-5	JD89486	Soil	PCBs, TS, TOC
VP9-X-13-PSBL-SED	JD89486-7	JD89486	Soil	PCBs, TS, TOC
VP9-X-14-PSBL-SED	JD89486-9	JD89486	Soil	PCBs, TS, TOC
VP9-X/Y-16-PSBL-SED	JD89486-10	JD89486	Soil	PCBs, TS, TOC

Data Validation and Qualifications

The following comments refer to the laboratory's performance in meeting the quality assurance/ quality control (QA/QC) guidelines outlined in the analytical procedures. Laboratory results were reviewed using the following guidelines:

- Field Sampling Plan/Quality Assurance Project Plan, Revision1 (Arcadis 2023)
- EPA Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846, Third Edition; EPA1986)
- Region I, EPA-New England Data Validation Functional Guidelines for Evaluating Environmental Analyses (EPA 1996)
- EPA National Functional Guidelines for Organic Superfund Methods Data Review (EPA 2020a)
- EPA National Functional Guidelines for Inorganic Superfund Methods Data Review (EPA 2020b)

Unless noted in this report, laboratory results for the samples listed above were within QC criteria.

Field Documentation

Field documentation was checked for completeness and accuracy. The chain-of-custody forms were signed by SGS at the time of sample receipt. Samples were received in good condition and within the recommended temperature range.

Sample Preservation and Holding Times

Samples were appropriately preserved and analyzed within the holding times.

Initial and Continuing Calibration

An initial calibration was performed as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all analytes.

The percent differences (%D) of the initial calibration verification (ICV) standard were less than or equal to 20.0% for all analytes. Analytes were not evaluated when reported from a different column

Continuing calibration was performed at required frequencies.

The %D of the continuing calibration verification (CCV) standards were less than or equal to 20.0% for all analytes.

Laboratory Method Blanks

Laboratory method blanks were analyzed at the required frequencies and were free of target analytes.

Field Quality Control

Field QC included rinsate blanks and field duplicates. Field QC samples were collected at the required frequency.

Equipment Rinsate Blanks

No rinsate blanks were collected in association with these sample sets because disposable sampling equipment was used.

Field Duplicates

One field duplicate was collected in association with these sample sets. Detected results are summarized in Table 2. Field duplicate relative percent difference (RPD) values were assessed by the 50% RPD according to the QAPP. Results that were less than five times the method reporting limit (MRL) were assessed by the difference between them using ± two times the MRL as the control limit. Field duplicate RPD or difference values were within control limits with one exception. The RPD for Aroclor 1260 was above the control limit for VP15-G-10-PSBL-SED and VP15-FD-1. The associated results were qualified "J" as estimated.

Table 2
Field Duplicate Summary

Analyte	VP15-G-10-PSBL-SED	VP15-FD-1	RPD
Aroclor 1260	3260 µg/kg	7980 µg/kg	84%
TOC	85300 mg/kg	84700 mg/kg	1%
Total solids	29.8%	35.7%	18%

Notes:
µg/kg: microgram per kilogram
mg/kg: milligram per kilogram

Surrogate Spike and Internal Standard Recoveries

Due to the inability to accurately quantify surrogates when a sample was analyzed at a dilution of 5x or greater, no data were qualified when surrogate recoveries were outside of control limits. When surrogate recoveries were outside of the control limits in one column, but results were reported from the other column; no data were qualified. Surrogates recovered outside of control limits in some laboratory QC samples, however; data are not qualified for surrogate outliers in QC samples alone or

when outlying surrogates are associated with the non-reporting column. Surrogates recovered within project-required control limits with the exceptions noted below in Table 3.

Table 3
Surrogate Recoveries

Sample ID	Lab Sample ID	Surrogate	Acceptance Criteria %	Surrogate Recovery %
VP9-W-17-PSBL-SED	JD89486-1	DCB	10-134	174
VP9-V-15/16-PSBL-SED	JD89486-2	DCB	10-134	140
VP9-W/X-13/14-PSBL-SED	JD89486-8	DCB	10-134	202
VP9-X-14-PSBL-SED	JD89486-9	DCB	10-134	175

Notes:
DCB: Decachlorobiphenyl

Column Confirmation Results

Secondary column confirmation results were within method requirements (40% RPD) for detected results.

Laboratory Control Samples and Laboratory Control Sample Duplicates

Laboratory control samples (LCS) and laboratory control sample duplicates (LCSD) were analyzed at the required frequency. LCS and LCSD recoveries and RPD values were within project-required control limits.

Matrix Spike and Matrix Spike Duplicate Samples

Matrix spike (MS) and matrix spike duplicate (MSD) samples were analyzed at the required frequencies. MS/MSD results reported for non-project samples were not evaluated. No data were qualified when native sample concentrations were greater than four times spike concentrations. No data were qualified when the recoveries and/or the RPD values were above the control limits and sample concentrations were not detected. Recoveries and/or RPD values were within project-required control limits.

Laboratory Duplicates

Laboratory duplicates were analyzed at the required frequency for total solids analysis and RPD values were within project-required control limits.

Method Reporting Limits

MRLs were acceptable as reported. All values were reported using the laboratory reporting limits. Values were reported as undiluted or when diluted, the reporting limit reflects the dilution factor.

Overall Assessment

As was determined by this evaluation, the laboratory followed the specified analytical methods and all requested sample analyses were completed. Accuracy was acceptable as demonstrated by the surrogate, LCS/LCSD, and MS/MSD recovery values, with the exceptions noted above. Precision was acceptable as demonstrated by the LCS/LCSD, MS/MSD, and laboratory and field duplicate RPD or difference values, with the exceptions noted above. All data are acceptable as reported or qualified. Completeness was 100%; completeness goals were met. Table 4 summarizes the qualifiers applied to the sample results reviewed in this report.

Data Qualifier Definitions

J Indicates an estimated value.

Table 4
Data Qualification Summary

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
VP9-W-17-PSBL-SED	PCBs	Aroclor 1260	4620 µg/kg	4620J µg/kg	Surrogate %R above CL
VP15-FD-1	PCBs	Aroclor 1260	7980 µg/kg	7980J µg/kg	FD RPD above CL
VP15-G-10-PSBL-SED	PCBs	Aroclor 1260	3260 µg/kg	3260J µg/kg	FD RPD above CL
VP9-V-15/16-PSBL-SED	PCBs	Aroclor 1260	3000 µg/kg	3000J µg/kg	Surrogate %R above CL
VP9-W/X-13/14-PSBL-SED	PCBs	Aroclor 1260	4360 µg/kg	4360J µg/kg	Surrogate %R above CL
VP9-X-14-PSBL-SED	PCBs	Aroclor 1260	5680 µg/kg	5680J µg/kg	Surrogate %R above CL

Notes:
%R: percent recovery
CL: control limit
FD: field duplicate
µg/kg: microgram per kilogram

References

Arcadis, 2023. *Field Sampling Plan/Quality Assurance Project Plan, Revision 1*. Prepared for General Electric Company, Pittsfield, Massachusetts. December 2023.

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Data Validation Report – EPA Stage 2B

April 28, 2025

Project: Housatonic Vernal Pool Pilot Study

Project Number: 240469-10.01

Validation ID: AQ-2025-0062

This report summarizes the review of analytical results for 34 sediment samples, 2 field duplicate samples, and 3 solid-phase microextraction (SPME) fiber samples collected in May 2024. The samples were collected by Anchor QEA and submitted to SGS Analytical (SGS) in Wilmington, North Carolina. Samples were analyzed for the following parameters:

- Polychlorinated biphenyls congeners (PCBs) by U.S. Environmental Protection Agency (EPA) method 1668C

Sample IDs, matrices, analyses, and SGS sample delivery group numbers (SDGs) reviewed in this report are presented in Table 1.

Table 1
Sample IDs, SDGs, Matrices, and Analyses

Sample ID	Lab Sample ID	SDG	Matrix	Analyses (Methods)
VP15-FD-1	B9492_21186_PCB_014-D2	B9492	Sediment	PCBs
VP15-G-10-PSBL-SED	B9492_21186_PCB_011-D2	B9492	Sediment	PCBs
VP15-G-11-PSBL-SED	B9492_21186_PCB_012-D2	B9492	Sediment	PCBs
VP15-G-12-PSBL-SED	B9492_21186_PCB_013-D2	B9492	Sediment	PCBs
VP15-G/H-9-PSBL-SED	B9492_21186_PCB_010-D2	B9492	Sediment	PCBs
VP9-FL000954-PSBL-SED	B9492_21186_PCB_002-D2	B9492	Sediment	PCBs
VP9-V-15/16-PSBL-SED	B9492_21186_PCB_001-D2	B9492	Sediment	PCBs
VP9-V/W-14-PSBL-SED	B9492_21186_PCB_005-D2	B9492	Sediment	PCBs
VP9-W-15-PSBL-SED	B9492_21186_PCB_003-D2	B9492	Sediment	PCBs
VP9-W/X-13/14-PSBL-SED	B9492_21186_PCB_007-D2	B9492	Sediment	PCBs
VP9-W/X-16-PSBL-SED	B9492_21186_PCB_004-D2	B9492	Sediment	PCBs
VP9-X-13-PSBL-SED	B9492_21186_PCB_006-D2	B9492	Sediment	PCBs
VP9-X-14-PSBL-SED	B9492_21186_PCB_008-D2	B9492	Sediment	PCBs
VP9-X/Y-16-PSBL-SED	B9492_21186_PCB_009-D2	B9492	Sediment	PCBs
VP12-B-2/3-PSBL-SED	B9497_21194_PCB_017-D2-RJ	B9497	Sediment	PCBs
VP12-B/C-1/2-PSBL-SED	B9497_21194_PCB_018-D2-RJ	B9497	Sediment	PCBs

Sample ID	Lab Sample ID	SDG	Matrix	Analyses (Methods)
VP12-B/C-4-PSBL-SED	B9497_21194_PCB_015-D2	B9497	Sediment	PCBs
VP12-C-3-PSBL-SED	B9497_21194_PCB_016-D2-RJ	B9497	Sediment	PCBs
VP12-C/D-4-PSBL-SED	B9497_21194_PCB_019-D2-RJ	B9497	Sediment	PCBs
VP15-G-13-PSBL-SED	B9497_21194_PCB_014-D2	B9497	Sediment	PCBs
VP15-H-12-PSBL-SED	B9497_21194_PCB_011-D2	B9497	Sediment	PCBs
VP15-H-14-PSBL-SED	B9497_21194_PCB_013-D2	B9497	Sediment	PCBs
VP15-I-15-PSBL-SED	B9497_21271_PCB_012-R1	B9497	Sediment	PCBs
VP22-B-4/5-PSBL-SED	B9497_21194_PCB_001-D2	B9497	Sediment	PCBs
VP22-C-4-PSBL-SED	B9497_21194_PCB_002-D2	B9497	Sediment	PCBs
VP22-D-3-PSBL-SED	B9497_21194_PCB_003-D2	B9497	Sediment	PCBs
VP22-E-2-PSBL-SED	B9497_21194_PCB_005-D2	B9497	Sediment	PCBs
VP22-F/G-2/3-PSBL-SED	B9497_21194_PCB_006-D2	B9497	Sediment	PCBs
VP22-F/G-3/4-PSBL-SED	B9497_21194_PCB_004-D2	B9497	Sediment	PCBs
VP22-FD-2	B9497_21194_PCB_010-D2	B9497	Sediment	PCBs
VP22-H-2-PSBL-SED	B9497_21194_PCB_007-D2	B9497	Sediment	PCBs
VP22-H-3/4-PSBL-SED	B9497_21194_PCB_009-D2	B9497	Sediment	PCBs
VP22-I-3-PSBL-SED	B9497_21194_PCB_008-D2	B9497	Sediment	PCBs
VP27-E/F-6-PSBL-SED	B9497_21194_PCB_020-D2-RJ	B9497	Sediment	PCBs
VP27-F-4-PSBL-SED	B9498_21186_PCB_002	B9498	Sediment	PCBs
VP27-F-5-PSBL-SED	B9498_21186_PCB_001	B9498	Sediment	PCBs
HOUS-FIELD-SPME-QC-1-240531	B9499_21193_PCB_001-RJ	B9499	SPME	PCBs
HOUS-FIELD-SPME-QC-2-240531	B9499_21193_PCB_002-RJ	B9499	SPME	PCBs
HOUS-FIELD-SPME-QC-3-240531	B9499_21193_PCB_003-RJ	B9499	SPME	PCBs

Data Validation and Qualifications

The following comments refer to the laboratory's performance in meeting the quality assurance/ quality control (QA/QC) guidelines outlined in the analytical procedures. Laboratory results were reviewed using the following guidelines:

- Field Sampling Plan/Quality Assurance Project Plan, Revision1 (Arcadis 2023)
- EPA Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846, Third Edition; EPA1986)
- Region I, EPA-New England Data Validation Functional Guidelines for Evaluating Environmental Analyses (EPA 1996)

- EPA National Functional Guidelines for High Resolution Superfund Methods Data Review (EPA 2020)

Unless noted in this report, laboratory results for the samples listed above were within QC criteria.

Field Documentation

Field documentation was checked for completeness and accuracy. The chain-of-custody forms were signed by SGS at the time of sample receipt. Samples were received in good condition and within the recommended temperature range.

Sample Preservation and Holding Times

Samples were appropriately preserved and analyzed within the holding times.

Initial and Continuing Calibration

An initial calibration was performed as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all analytes.

The percent differences (%D) of the initial calibration verification (ICV) standard were less than or equal to 35% for native analytes and less than or equal to 45% for labeled compounds and cleanup standards.

Continuing calibration was performed at required frequencies.

The %D of the continuing calibration verification (CCV) standards were less than or equal to 25% for native analytes and less than or equal to 45% for labeled compounds and less than or equal to 35% for cleanup standards.

Laboratory Method Blanks

Laboratory method blanks were analyzed at the required frequencies. PCBs were detected in every method blank. In instances where the sample concentration was not significantly greater than (5x greater than) the concentration of the method blank, the sample result was qualified “U”.

Field Quality Control

Field QC included two field duplicates. Field QC samples were collected at the required frequency.

Field Duplicates

Two field duplicates were collected in association with these sample sets. Detected results are summarized in Table 2. Field duplicate relative percent difference (RPD) values were assessed by the

50% RPD according to the QAPP. Field duplicate RPDs were within control limits with some exceptions. Sample results and duplicate results that did not meet control limits were qualified "J" or "UJ" as estimated.

Table 2
Field Duplicate Summary

Analyte	VP15-G-10-PSBL-SED	VP15-FD-1	RPD
PCB-001	154 pg/g	173 pg/g	12%
PCB-002	29.2 pg/g	22.2 pg/g	27%
PCB-003	87.2 pg/g	75.5 pg/g	14%
PCB-004	2770 pg/g	1480 pg/g	61%
PCB-005	30.3 pg/g	21U pg/g	36%
PCB-006	946 pg/g	633 pg/g	40%
PCB-007	86.6 pg/g	64.5 pg/g	29%
PCB-008	1930 pg/g	1290 pg/g	40%
PCB-009	111 pg/g	93.6 pg/g	17%
PCB-010	140 pg/g	80 pg/g	55%
PCB-011	64.5 pg/g	72.8 pg/g	12%
PCB-012/013	380 pg/g	261 pg/g	37%
PCB-015	2750 pg/g	2090 pg/g	27%
PCB-016	1440 pg/g	1160 pg/g	22%
PCB-017	2570 pg/g	2290 pg/g	12%
PCB-018/030	3500 pg/g	2980 pg/g	16%
PCB-019	1620 pg/g	1270 pg/g	24%
PCB-020/028	6410 pg/g	6850 pg/g	7%
PCB-021/033	3020 pg/g	3730 pg/g	21%
PCB-022	1170 pg/g	1100 pg/g	6%
PCB-024	55.8 pg/g	69.7 pg/g	22%
PCB-025	3620 pg/g	4560 pg/g	23%
PCB-026/029	4210 pg/g	5140 pg/g	20%
PCB-027	2080 pg/g	1960 pg/g	6%
PCB-031	4180 pg/g	4510 pg/g	8%
PCB-032	4020 pg/g	4170 pg/g	4%
PCB-034	90.7 pg/g	136 pg/g	40%
PCB-035	107 pg/g	127 pg/g	17%
PCB-037	1940 pg/g	2210 pg/g	13%
PCB-038	132 pg/g	152 pg/g	14%
PCB-040/071	35800 pg/g	33500 pg/g	7%
PCB-042	13700 pg/g	12600 pg/g	8%

Analyte	VP15-G-10-PSBL-SED	VP15-FD-1	RPD
PCB-044/047/065	447000 pg/g	413000 pg/g	8%
PCB-045	27U pg/g	629 pg/g	184%
PCB-046	3250 pg/g	2680 pg/g	19%
PCB-048	1700 pg/g	1210 pg/g	34%
PCB-049/069	297000 pg/g	276000 pg/g	7%
PCB-050/053	102000 pg/g	98500 pg/g	3%
PCB-051	71100 pg/g	68700 pg/g	3%
PCB-052	188000 pg/g	177000 pg/g	6%
PCB-054	6830 pg/g	8650 pg/g	24%
PCB-056	6300 pg/g	5740 pg/g	9%
PCB-057	548 pg/g	538U pg/g	2%
PCB-058	1060 pg/g	835 pg/g	24%
PCB-059/062/075	11900 pg/g	12200 pg/g	2%
PCB-060	1710 pg/g	1470 pg/g	15%
PCB-061/070/074/076	68400 pg/g	65800 pg/g	4%
PCB-063	1730 pg/g	1650 pg/g	5%
PCB-064	15100 pg/g	13800 pg/g	9%
PCB-066	52400 pg/g	50400 pg/g	4%
PCB-067	2120 pg/g	2290 pg/g	8%
PCB-068	8910 pg/g	8400 pg/g	6%
PCB-072	7590 pg/g	7090 pg/g	7%
PCB-073	14600 pg/g	12900 pg/g	12%
PCB-077	2670 pg/g	2800 pg/g	5%
PCB-079	2200 pg/g	2030 pg/g	8%
PCB-082	19700 pg/g	19300 pg/g	2%
PCB-083	23500 pg/g	18000 pg/g	27%
PCB-084	55100 pg/g	52800 pg/g	4%
PCB-085/116	71200 pg/g	62900 pg/g	12%
PCB-086/087/097/109/119/125	297000 pg/g	287000 pg/g	3%
PCB-090/101/113	1020000 pg/g	975000 pg/g	5%
PCB-091	430000 pg/g	414000 pg/g	4%
PCB-092	335000 pg/g	322000 pg/g	4%
PCB-093/100	135000 pg/g	128000 pg/g	5%
PCB-094	66600 pg/g	64600 pg/g	3%
PCB-095	610000 pg/g	598000 pg/g	2%
PCB-096	35500 pg/g	39800 pg/g	11%
PCB-098	1880U pg/g	3930 pg/g	71%
PCB-099	484000 pg/g	469000 pg/g	3%

Analyte	VP15-G-10-PSBL-SED	VP15-FD-1	RPD
PCB-102	52300 pg/g	45100 pg/g	15%
PCB-103	91600 pg/g	88600 pg/g	3%
PCB-104	4030 pg/g	4250 pg/g	5%
PCB-105	104000 pg/g	114000 pg/g	9%
PCB-107	35000 pg/g	34000 pg/g	3%
PCB-108/124	14300 pg/g	13800 pg/g	4%
PCB-110	702000 pg/g	677000 pg/g	4%
PCB-111	3070 pg/g	3060 pg/g	0%
PCB-114	6500 pg/g	6170 pg/g	5%
PCB-117	30100 pg/g	31300 pg/g	4%
PCB-118	355000 pg/g	350000 pg/g	1%
PCB-120	10200 pg/g	9780 pg/g	4%
PCB-121	3460 pg/g	3220 pg/g	7%
PCB-122	5260 pg/g	4550 pg/g	14%
PCB-123	6640 pg/g	5660 pg/g	16%
PCB-126	1120 pg/g	1280 pg/g	13%
PCB-128/166	225000 pg/g	267000 pg/g	17%
PCB-129/138/163	1370000 pg/g	1230000 pg/g	11%
PCB-130	72000 pg/g	67200 pg/g	7%
PCB-131	6120 pg/g	6130 pg/g	0%
PCB-132	327000 pg/g	311000 pg/g	5%
PCB-133	36100 pg/g	32600 pg/g	10%
PCB-134	75900 pg/g	71400 pg/g	6%
PCB-135/151	731000 pg/g	681000 pg/g	7%
PCB-136	449000 pg/g	473000 pg/g	5%
PCB-137	22000 pg/g	23000 pg/g	4%
PCB-139/140	16800 pg/g	15400 pg/g	9%
PCB-141	299000 pg/g	276000 pg/g	8%
PCB-144	58700 pg/g	54500 pg/g	7%
PCB-146	264000 pg/g	245000 pg/g	7%
PCB-147/149	1350000 pg/g	1230000 pg/g	9%
PCB-148	11700 pg/g	10500 pg/g	11%
PCB-150	35800 pg/g	35500 pg/g	1%
PCB-152	19700 pg/g	20300 pg/g	3%
PCB-153/168	1370000 pg/g	1200000 pg/g	13%
PCB-154	67000 pg/g	59800 pg/g	11%
PCB-155	1730 pg/g	1690 pg/g	2%
PCB-156/157	125000 pg/g	125000 pg/g	0%

Analyte	VP15-G-10-PSBL-SED	VP15-FD-1	RPD
PCB-158	101000 pg/g	91700 pg/g	10%
PCB-159	44600 pg/g	55400 pg/g	22%
PCB-162	5100 pg/g	5900 pg/g	15%
PCB-164	93500 pg/g	84000 pg/g	11%
PCB-165	6270 pg/g	5490 pg/g	13%
PCB-167	62900 pg/g	76200 pg/g	19%
PCB-170	926000 pg/g	905000 pg/g	2%
PCB-171/173	181000 pg/g	182000 pg/g	1%
PCB-172	113000 pg/g	113000 pg/g	0%
PCB-174	658000 pg/g	668000 pg/g	2%
PCB-175	26600 pg/g	27100 pg/g	2%
PCB-176	185000 pg/g	206000 pg/g	11%
PCB-177	396000 pg/g	400000 pg/g	1%
PCB-178	375000 pg/g	412000 pg/g	9%
PCB-179	658000 pg/g	707000 pg/g	7%
PCB-180/193	1440000 pg/g	1410000 pg/g	2%
PCB-181	2800 pg/g	2800 pg/g	0%
PCB-182	5480 pg/g	5690 pg/g	4%
PCB-183	357000 pg/g	355000 pg/g	1%
PCB-184	845 pg/g	956 pg/g	12%
PCB-185	78400 pg/g	81900 pg/g	4%
PCB-187	817000 pg/g	819000 pg/g	0%
PCB-188	7620 pg/g	7470 pg/g	2%
PCB-189	44900 pg/g	48300 pg/g	7%
PCB-190	221000 pg/g	214000 pg/g	3%
PCB-191	29500 pg/g	30100 pg/g	2%
PCB-194	810000 pg/g	858000 pg/g	6%
PCB-195	356000 pg/g	383000 pg/g	7%
PCB-196	413000 pg/g	353000 pg/g	16%
PCB-197	27500 pg/g	26400 pg/g	4%
PCB-198/199	809000 pg/g	698000 pg/g	15%
PCB-200	129000 pg/g	110000 pg/g	16%
PCB-201	108000 pg/g	92900 pg/g	15%
PCB-202	139000 pg/g	120000 pg/g	15%
PCB-203	466000 pg/g	404000 pg/g	14%
PCB-205	45300 pg/g	49400 pg/g	9%
PCB-206	208000 pg/g	215000 pg/g	3%
PCB-207	30500 pg/g	28600 pg/g	6%

Analyte	VP15-G-10-PSBL-SED	VP15-FD-1	RPD
PCB-208	41200 pg/g	37700 pg/g	9%
PCB-209	8890 pg/g	9520 pg/g	7%

Analyte	VP22-I-3-PSBL-SED	VP22-FD-2	RPD
PCB-001	83.1 pg/g	136 pg/g	48%
PCB-002	35 pg/g	131 pg/g	116%
PCB-003	79 pg/g	169 pg/g	73%
PCB-004	605 pg/g	806 pg/g	28%
PCB-006	386 pg/g	512 pg/g	28%
PCB-007	36.4 pg/g	49.8 pg/g	31%
PCB-008	835 pg/g	1040 pg/g	22%
PCB-009	53.6 pg/g	66.6 pg/g	22%
PCB-010	23 pg/g	25.2 pg/g	9%
PCB-011	43.7 pg/g	114 pg/g	89%
PCB-012/013	206 pg/g	302 pg/g	38%
PCB-015	1180 pg/g	1430 pg/g	19%
PCB-016	566 pg/g	798 pg/g	34%
PCB-017	791 pg/g	1180 pg/g	39%
PCB-018/030	1180 pg/g	1670 pg/g	34%
PCB-019	290 pg/g	466 pg/g	47%
PCB-020/028	2750 pg/g	3680 pg/g	29%
PCB-021/033	838 pg/g	1030 pg/g	21%
PCB-022	603 pg/g	826 pg/g	31%
PCB-024	21.7 pg/g	30.3 pg/g	33%
PCB-025	814 pg/g	1130 pg/g	33%
PCB-026/029	2190 pg/g	2940 pg/g	29%
PCB-027	221 pg/g	347 pg/g	44%
PCB-031	2560 pg/g	3390 pg/g	28%
PCB-032	520 pg/g	722 pg/g	33%
PCB-034	21.9U pg/g	32.2 pg/g	38%
PCB-035	121 pg/g	175 pg/g	36%
PCB-037	1400 pg/g	1880 pg/g	29%
PCB-039	40.4 pg/g	29.3U pg/g	32%
PCB-040/071	2390 pg/g	2490 pg/g	4%
PCB-041	191 pg/g	214 pg/g	11%
PCB-042	2240 pg/g	2300 pg/g	3%
PCB-043	269 pg/g	146 pg/g	59%

Analyte	VP22-I-3-PSBL-SED	VP22-FD-2	RPD
PCB-044/047/065	20200 pg/g	20500 pg/g	1%
PCB-045	355 pg/g	547 pg/g	43%
PCB-046	213 pg/g	230 pg/g	8%
PCB-048	581 pg/g	551 pg/g	5%
PCB-049/069	32500 pg/g	33400 pg/g	3%
PCB-050/053	1320 pg/g	1420 pg/g	7%
PCB-051	673 pg/g	672 pg/g	0%
PCB-052	53100 pg/g	54100 pg/g	2%
PCB-054	96.2 pg/g	163 pg/g	52%
PCB-056	5070 pg/g	5150 pg/g	2%
PCB-059/062/075	1560 pg/g	1740 pg/g	11%
PCB-060	1970 pg/g	2000 pg/g	2%
PCB-061/070/074/076	65900 pg/g	64700 pg/g	2%
PCB-063	832 pg/g	851 pg/g	2%
PCB-064	12000 pg/g	11700 pg/g	3%
PCB-066	33600 pg/g	32500 pg/g	3%
PCB-068	2640 pg/g	2810 pg/g	6%
PCB-072	4780 pg/g	4600 pg/g	4%
PCB-073	494 pg/g	489 pg/g	1%
PCB-077	4770 pg/g	5790 pg/g	19%
PCB-079	2620 pg/g	2090 pg/g	23%
PCB-082	25500 pg/g	33700 pg/g	28%
PCB-083	26500 pg/g	22500 pg/g	16%
PCB-084	30900 pg/g	42900 pg/g	33%
PCB-085/116	138000 pg/g	177000 pg/g	25%
PCB-086/087/097/109/119/125	352000 pg/g	469000 pg/g	29%
PCB-090/101/113	795000 pg/g	1060000 pg/g	29%
PCB-091	75900 pg/g	100000 pg/g	27%
PCB-092	223000 pg/g	294000 pg/g	27%
PCB-093/100	7600 pg/g	9790 pg/g	25%
PCB-095	372000 pg/g	516000 pg/g	32%
PCB-096	611 pg/g	759 pg/g	22%
PCB-099	393000 pg/g	512000 pg/g	26%
PCB-102	2560 pg/g	3480 pg/g	30%
PCB-103	11900 pg/g	16300 pg/g	31%
PCB-104	106 pg/g	141 pg/g	28%
PCB-105	185000 pg/g	231000 pg/g	22%
PCB-107	51600 pg/g	64800 pg/g	23%

Analyte	VP22-I-3-PSBL-SED	VP22-FD-2	RPD
PCB-108/124	37900 pg/g	47900 pg/g	23%
PCB-110	1240000 pg/g	1590000 pg/g	25%
PCB-114	6900 pg/g	6330 pg/g	9%
PCB-117	20100 pg/g	27000 pg/g	29%
PCB-118	558000 pg/g	691000 pg/g	21%
PCB-120	6480 pg/g	7990 pg/g	21%
PCB-122	9180 pg/g	8840 pg/g	4%
PCB-123	16600 pg/g	19600 pg/g	17%
PCB-126	3070 pg/g	3390 pg/g	10%
PCB-128/166	271000 pg/g	351000 pg/g	26%
PCB-129/138/163	933000 pg/g	1210000 pg/g	26%
PCB-130	48000 pg/g	60200 pg/g	23%
PCB-131	4570 pg/g	5850 pg/g	25%
PCB-132	210000 pg/g	265000 pg/g	23%
PCB-133	12500 pg/g	15900 pg/g	24%
PCB-134	35600 pg/g	44900 pg/g	23%
PCB-135/151	304000 pg/g	385000 pg/g	24%
PCB-136	251000 pg/g	325000 pg/g	26%
PCB-137	21500 pg/g	27500 pg/g	24%
PCB-139/140	8860 pg/g	11100 pg/g	22%
PCB-141	179000 pg/g	223000 pg/g	22%
PCB-144	32700 pg/g	41300 pg/g	23%
PCB-145	37.7U pg/g	422 pg/g	167%
PCB-146	126000 pg/g	157000 pg/g	22%
PCB-147/149	660000 pg/g	833000 pg/g	23%
PCB-148	1540 pg/g	1960 pg/g	24%
PCB-150	3630 pg/g	4830 pg/g	28%
PCB-152	1270 pg/g	1640 pg/g	25%
PCB-153/168	792000 pg/g	1030000 pg/g	26%
PCB-154	10900 pg/g	13700 pg/g	23%
PCB-155	123 pg/g	184 pg/g	40%
PCB-156/157	196000 pg/g	226000 pg/g	14%
PCB-158	75700 pg/g	93100 pg/g	21%
PCB-159	31300 pg/g	39100 pg/g	22%
PCB-161	11.1U pg/g	459 pg/g	191%
PCB-162	8280 pg/g	9290 pg/g	12%
PCB-164	59900 pg/g	73200 pg/g	20%
PCB-165	1100 pg/g	16.2U pg/g	194%

Analyte	VP22-I-3-PSBL-SED	VP22-FD-2	RPD
PCB-167	89400 pg/g	111000 pg/g	22%
PCB-170	584000 pg/g	779000 pg/g	29%
PCB-171/173	116000 pg/g	143000 pg/g	21%
PCB-172	70200 pg/g	85200 pg/g	19%
PCB-174	408000 pg/g	504000 pg/g	21%
PCB-175	13600 pg/g	16800 pg/g	21%
PCB-176	129000 pg/g	141000 pg/g	9%
PCB-177	240000 pg/g	299000 pg/g	22%
PCB-178	251000 pg/g	271000 pg/g	8%
PCB-179	443000 pg/g	480000 pg/g	8%
PCB-180/193	880000 pg/g	1070000 pg/g	19%
PCB-181	2140 pg/g	2770 pg/g	26%
PCB-182	2130 pg/g	2850 pg/g	29%
PCB-183	208000 pg/g	258000 pg/g	21%
PCB-184	487 pg/g	517 pg/g	6%
PCB-185	46700 pg/g	56600 pg/g	19%
PCB-186	139 pg/g	35.3U pg/g	119%
PCB-187	462000 pg/g	574000 pg/g	22%
PCB-188	1380 pg/g	1650 pg/g	18%
PCB-189	38800 pg/g	38800 pg/g	0%
PCB-190	126000 pg/g	171000 pg/g	30%
PCB-191	15700 pg/g	18400 pg/g	16%
PCB-194	398000 pg/g	522000 pg/g	27%
PCB-195	189000 pg/g	246000 pg/g	26%
PCB-196	239000 pg/g	227000 pg/g	5%
PCB-197	15600 pg/g	15800 pg/g	1%
PCB-198/199	510000 pg/g	485000 pg/g	5%
PCB-200	69600 pg/g	67400 pg/g	3%
PCB-201	54400 pg/g	52400 pg/g	4%
PCB-202	86500 pg/g	84400 pg/g	2%
PCB-203	308000 pg/g	296000 pg/g	4%
PCB-204	122 pg/g	118 pg/g	3%
PCB-205	24400 pg/g	32900 pg/g	30%
PCB-206	167000 pg/g	194000 pg/g	15%
PCB-207	17200 pg/g	17700 pg/g	3%

Analyte	VP22-I-3-PSBL-SED	VP22-FD-2	RPD
PCB-208	34800 pg/g	36200 pg/g	4%
PCB-209	20900 pg/g	23900 pg/g	13%

Notes:
pg/g: picogram per gram

Surrogates and Labeled Compounds Recoveries

Due to the inability to accurately quantify surrogates and labeled compounds when a sample was analyzed at a dilution of 5x or greater, no data were qualified when surrogate recoveries were outside of control limits. When surrogate recoveries were outside of the control limits in one column, but results were reported from the other column; no data were qualified. Surrogates recovered outside of control limits in some laboratory QC samples, however; data are not qualified for surrogate outliers in QC samples alone or when outlying surrogates are associated with the non-reporting column. Surrogates and labeled compounds recovered within project-required control limits with the following exceptions.

- The surrogate PCB-178 recovered below 10% for VP9-X/Y-16-PSBL-SED. The associated sample result was qualified "J" to indicate a potential low bias.
- The labeled compound PCB-155 recovered above the control limit for VP9-X/Y-16-PSBL-SED. The associated detected sample result for PCB-155 was qualified "J" to indicate a potential high bias.
- The labeled compound PCB-170 recovered above the control limit for VP15-G-11-PSBL-SED. The associated detected sample result for PCB-170 was qualified "J" to indicate a potential high bias.
- The labeled compound PCB-180 recovered above the control limit for 23 samples. The associated detected sample results for PCB-180/193 were qualified "J" to indicate a potential high bias.
- The labeled compound PCB-188 recovered above the control limit for VP9-W/X-13/14-PSBL-SED and VP9-X/Y-16-PSBL-SED. The associated detected sample results for PCB-188 were qualified "J" to indicate a potential high bias.

Laboratory Control Samples and Laboratory Control Sample Duplicates

Laboratory control samples (LCS) and laboratory control sample duplicates (LCSD) were analyzed at the required frequency. LCS and LCSD recoveries and RPD values were within project-required control limits.

Matrix Spike and Matrix Spike Duplicate Samples

Matrix spike (MS) and matrix spike duplicate (MSD) samples were analyzed at the required frequencies. No data were qualified when native sample concentrations were greater than four times spike concentrations. No data were qualified when the recoveries and/or the RPD values were above the control limits and sample concentrations were not detected. Recoveries and/or RPD values were within project-required control limits with the following exception. The MS and MSD on sample VP22-H-2-PSBL-SED for PCB-081 and PCB-169 had no recovery. Associated sample results were rejected due to the recovery being less than 10%.

Laboratory Duplicates

Laboratory duplicates not required to be analyzed for these sample sets.

Method Reporting Limits

MRLs were acceptable as reported. All values were reported using the laboratory reporting limits. Values were reported as undiluted or when diluted, the reporting limit reflects the dilution factor.

Sample Analyses

Several results were noted by the laboratory to have exceeded the calibration. These results were qualified “J” as estimated.

Estimated Maximum Possible Concentration

Some PCB congener results were flagged as estimated maximum possible concentration (EMPC) due to results that do not meet all method qualitative criteria for positive identification. Results have been qualified “J” to indicate they are estimated.

Overall Assessment

As was determined by this evaluation, the laboratory followed the specified analytical methods and all requested sample analyses were completed. Accuracy was acceptable as demonstrated by the surrogate, labeled compound, LCS/LCSD, and MS/MSD recovery values, with the exceptions noted above. Precision was acceptable as demonstrated by the LCS/LCSD, MS/MSD, and field duplicate RPD values, with the exceptions noted above. All data are acceptable as reported or qualified. Completeness was 100%; completeness goals were met. Table 3 summarizes the qualifiers applied to the sample results reviewed in this report.

Data Qualifier Definitions

U Indicates the compound or analyte was analyzed for but not detected at or above the specified limit.

J Indicates an estimated value.

UJ Indicates the compound or analyte was analyzed for but not detected and the specified limit reported is estimated.

Table 3
Data Qualification Summary

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
Various	PCBs	Various	Various	Various	Calibration Exceeded
Various	PCBs	Various	Various	Various	EMPC
HOUS-FIELD-SPME-QC-2-240531	PCBs	PCB-015	2.64J pg	2.64U pg	Method blank contamination
HOUS-FIELD-SPME-QC-2-240531	PCBs	PCB-095	35 pg	35U pg	Method blank contamination
HOUS-FIELD-SPME-QC-2-240531	PCBs	PCB-099	6.57J pg	6.57U pg	Method blank contamination
HOUS-FIELD-SPME-QC-2-240531	PCBs	PCB-135/151	17.2J pg	17.2U pg	Method blank contamination
HOUS-FIELD-SPME-QC-2-240531	PCBs	PCB-052	6.64JEMPC pg	6.64UJ pg	Method blank contamination; EMPC
HOUS-FIELD-SPME-QC-2-240531	PCBs	PCB-090/101/113	22.8JEMPC pg	22.8UJ pg	Method blank contamination; EMPC
HOUS-FIELD-SPME-QC-2-240531	PCBs	PCB-118	7.03JEMPC pg	7.03UJ pg	Method blank contamination; EMPC
HOUS-FIELD-SPME-QC-2-240531	PCBs	PCB-129/138/163	20.8JEMPC pg	20.8UJ pg	Method blank contamination; EMPC
HOUS-FIELD-SPME-QC-2-240531	PCBs	PCB-132	9.94JEMPC pg	9.94UJ pg	Method blank contamination; EMPC
HOUS-FIELD-SPME-QC-2-240531	PCBs	PCB-147/149	22.4JEMPC pg	22.4UJ pg	Method blank contamination; EMPC
HOUS-FIELD-SPME-QC-3-240531	PCBs	PCB-090/101/113	31.2J pg	31.2U pg	Method blank contamination
HOUS-FIELD-SPME-QC-3-240531	PCBs	PCB-135/151	23.4J pg	23.4U pg	Method blank contamination
HOUS-FIELD-SPME-QC-3-240531	PCBs	PCB-095	28.8EMPC pg	28.8UJ pg	Method blank contamination; EMPC
HOUS-FIELD-SPME-QC-3-240531	PCBs	PCB-132	11.5JEMPC pg	11.5UJ pg	Method blank contamination; EMPC
VP12-B/C-1/2-PSBL-SED	PCBs	PCB-180/193	933000 pg/g	933000J pg/g	Labeled Compound %R above CL; Calibration Exceeded
VP12-B/C-4-PSBL-SED	PCBs	PCB-180/193	786000 pg/g	786000J pg/g	Labeled Compound %R above CL; Calibration Exceeded

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
VP15-FD-1	PCBs	PCB-004	1480 pg/g	1480J pg/g	FD RPD above CL
VP15-FD-1	PCBs	PCB-010	80 pg/g	80J pg/g	FD RPD above CL
VP15-FD-1	PCBs	PCB-045	629 pg/g	629J pg/g	FD RPD above CL
VP15-FD-1	PCBs	PCB-098	3930 pg/g	3930J pg/g	FD RPD above CL
VP15-FD-1	PCBs	PCB-180/193	1410000 pg/g	1410000J pg/g	Labeled Compound %R above CL; Calibration Exceeded
VP15-G/H-9-PSBL-SED	PCBs	PCB-180/193	841000 pg/g	841000J pg/g	Labeled Compound %R above CL; Calibration Exceeded
VP15-G-10-PSBL-SED	PCBs	PCB-004	2770 pg/g	2770J pg/g	FD RPD above CL
VP15-G-10-PSBL-SED	PCBs	PCB-045	27U pg/g	27UJ pg/g	FD RPD above CL
VP15-G-10-PSBL-SED	PCBs	PCB-098	1880U pg/g	1880UJ pg/g	FD RPD above CL
VP15-G-10-PSBL-SED	PCBs	PCB-010	140EMPC pg/g	140J pg/g	FD RPD above CL; EMPC
VP15-G-10-PSBL-SED	PCBs	PCB-180/193	1440000 pg/g	1440000J pg/g	Labeled Compound %R above CL; Calibration Exceeded
VP15-G-11-PSBL-SED	PCBs	PCB-170	815000 pg/g	815000J pg/g	Labeled Compound %R above CL; Calibration Exceeded
VP15-G-11-PSBL-SED	PCBs	PCB-180/193	1100000 pg/g	1100000J pg/g	Labeled Compound %R above CL; Calibration Exceeded
VP15-H-12-PSBL-SED	PCBs	PCB-180/193	893000 pg/g	893000J pg/g	Labeled Compound %R above CL; Calibration Exceeded
VP15-I-15-PSBL-SED	PCBs	PCB-011	162J pg/g	162U pg/g	Method blank contamination
VP22-B-4/5-PSBL-SED	PCBs	PCB-180/193	833000 pg/g	833000J pg/g	Labeled Compound %R above CL; Calibration Exceeded
VP22-E-2-PSBL-SED	PCBs	PCB-180/193	629000 pg/g	629000J pg/g	Labeled Compound %R above CL; Calibration Exceeded
VP22-F/G-2/3-PSBL-SED	PCBs	PCB-180/193	784000 pg/g	784000J pg/g	Labeled Compound %R above CL; Calibration Exceeded
VP22-FD-2	PCBs	PCB-003	169 pg/g	169J pg/g	FD RPD above CL
VP22-FD-2	PCBs	PCB-011	114 pg/g	114J pg/g	FD RPD above CL

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
VP22-FD-2	PCBs	PCB-043	146 pg/g	146J pg/g	FD RPD above CL
VP22-FD-2	PCBs	PCB-054	163 pg/g	163J pg/g	FD RPD above CL
VP22-FD-2	PCBs	PCB-145	422 pg/g	422J pg/g	FD RPD above CL
VP22-FD-2	PCBs	PCB-161	459 pg/g	459J pg/g	FD RPD above CL
VP22-FD-2	PCBs	PCB-165	16.2U pg/g	16.2UJ pg/g	FD RPD above CL
VP22-FD-2	PCBs	PCB-186	35.3U pg/g	35.3UJ pg/g	FD RPD above CL
VP22-FD-2	PCBs	PCB-002	131EMPC pg/g	131J pg/g	FD RPD above CL; EMPC
VP22-FD-2	PCBs	PCB-180/193	1070000 pg/g	1070000J pg/g	Labeled Compound %R above CL; Calibration Exceeded
VP22-H-2-PSBL-SED	PCBs	PCB-180/193	1140000 pg/g	1140000J pg/g	Labeled Compound %R above CL; Calibration Exceeded
VP22-H-2-PSBL-SED	PCBs	PCB-081	479U pg/g	479R pg/g	MS/MSD %R below 10%
VP22-H-2-PSBL-SED	PCBs	PCB-169	293U pg/g	293R pg/g	MS/MSD %R below 10%
VP22-I-3-PSBL-SED	PCBs	PCB-002	35 pg/g	35J pg/g	FD RPD above CL
VP22-I-3-PSBL-SED	PCBs	PCB-003	79 pg/g	79J pg/g	FD RPD above CL
VP22-I-3-PSBL-SED	PCBs	PCB-043	269 pg/g	269J pg/g	FD RPD above CL
VP22-I-3-PSBL-SED	PCBs	PCB-054	96.2 pg/g	96.2J pg/g	FD RPD above CL
VP22-I-3-PSBL-SED	PCBs	PCB-145	37.7U pg/g	37.7UJ pg/g	FD RPD above CL
VP22-I-3-PSBL-SED	PCBs	PCB-161	11.1U pg/g	11.1UJ pg/g	FD RPD above CL
VP22-I-3-PSBL-SED	PCBs	PCB-165	1100 pg/g	1100J pg/g	FD RPD above CL
VP22-I-3-PSBL-SED	PCBs	PCB-011	43.7EMPC pg/g	43.7J pg/g	FD RPD above CL; EMPC
VP22-I-3-PSBL-SED	PCBs	PCB-186	139EMPC pg/g	139J pg/g	FD RPD above CL; EMPC
VP22-I-3-PSBL-SED	PCBs	PCB-180/193	880000 pg/g	880000J pg/g	Labeled Compound %R above CL; Calibration Exceeded
VP27-E/F-6-PSBL-SED	PCBs	PCB-180/193	707000 pg/g	707000J pg/g	Labeled Compound %R above CL; Calibration Exceeded
VP27-F-5-PSBL-SED	PCBs	PCB-180/193	417000 pg/g	417000J pg/g	Labeled Compound %R above CL; Calibration Exceeded
VP9-FL000954-PSBL-SED	PCBs	PCB-137	12700EMPC pg/g	12700J pg/g	Calibration Exceeded; EMPC

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
VP9-FL000954-PSBL-SED	PCBs	PCB-180/193	830000 pg/g	830000J pg/g	Labeled Compound %R above CL; Calibration Exceeded
VP9-V/W-14-PSBL-SED	PCBs	PCB-180/193	867000 pg/g	867000J pg/g	Labeled Compound %R above CL; Calibration Exceeded
VP9-W/X-13/14-PSBL-SED	PCBs	PCB-188	1940 pg/g	1940J pg/g	Labeled Compound %R above CL
VP9-W/X-13/14-PSBL-SED	PCBs	PCB-180/193	941000 pg/g	941000J pg/g	Labeled Compound %R above CL; Calibration Exceeded
VP9-W/X-16-PSBL-SED	PCBs	PCB-180/193	985000 pg/g	985000J pg/g	Labeled Compound %R above CL; Calibration Exceeded
VP9-W-15-PSBL-SED	PCBs	PCB-180/193	1140000 pg/g	1140000J pg/g	Labeled Compound %R above CL; Calibration Exceeded
VP9-X/Y-16-PSBL-SED	PCBs	PCB-155	331 pg/g	331J pg/g	Labeled Compound %R above CL
VP9-X/Y-16-PSBL-SED	PCBs	PCB-188	2160 pg/g	2160J pg/g	Labeled Compound %R above CL
VP9-X/Y-16-PSBL-SED	PCBs	PCB-180/193	973000 pg/g	973000J pg/g	Labeled Compound %R above CL; Calibration Exceeded
VP9-X/Y-16-PSBL-SED	PCBs	PCB-178	515000 pg/g	515000J pg/g	Surrogate %R below CL; Calibration Exceeded
VP9-X-13-PSBL-SED	PCBs	PCB-180/193	894000 pg/g	894000J pg/g	Labeled Compound %R above CL; Calibration Exceeded
VP9-X-14-PSBL-SED	PCBs	PCB-180/193	1120000 pg/g	1120000J pg/g	Labeled Compound %R above CL; Calibration Exceeded

Notes:
%R: percent recovery
EMPC: Estimated Maximum Potential Concentration
FD: Field Duplicate
pg: picogram
pg/g: picogram per gram

References

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EPA, 2020. USEPA Contract Laboratory Program National Functional Guidelines for High Resolution Superfund Methods Data Review. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. EPA 542-R-20-007. November 2020.

Attachment D
Pilot Study Pool Photographs

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 1	Date: 03/08/24	Photo No. 2	Date: 05/25/23
Description: 5AVP3 flooded in early spring 2024. Photo Direction: SW		**Description:** 5AVP3 dried out. Photo Direction: N	

Photo No. 3	Date: 04/17/23	Photo No. 4	Date: 03/19/24
Description: Fairy Shrimp in 5AVP3. Photo Direction: NA		**Description:** Wood frog egg masses in 5AVP3. Photo Direction: NA	

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 5	Date: 03/19/24	Photo No. 6	Date: 05/06/24
Description: 5AVP4 flooded in early 2024. South end of pool. Photo Direction: NE		**Description:** 5AVP4, Pool nearly dry. North end of pool. Photo Direction: SE	

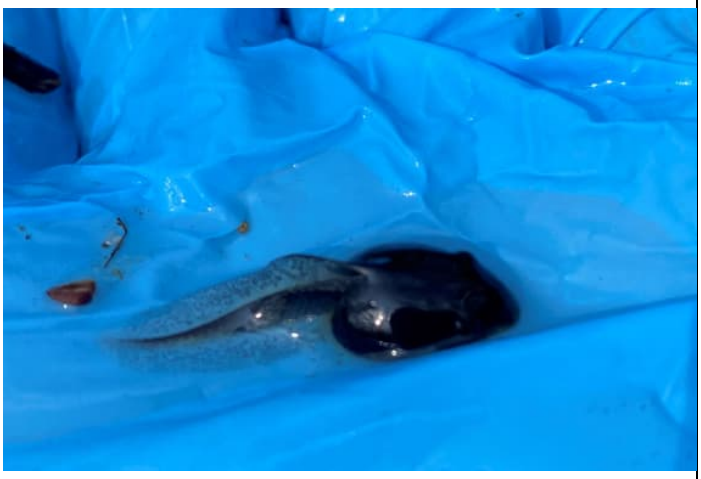
Photo No. 7	Date: 05/30/24	Photo No. 8	Date: 05/30/24
Description: 5AVP4, first observation of pool dried out. North end of pool Photo Direction: SE		**Description:** 5AVP4, first observation of pool dried out. South end of pool Photo Direction: N	

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 9	Date: 03/19/24	Photo No. 10	Date: 04/17/23
Description: Wood frog egg masses in 5AVP4. Photo Direction: NA		**Description:** Fairy shrimp in 5AVP4. Photo Direction: NA	

Photo No. 11	Date: 05/09/23	Photo No. 12	Date: 05/06/24
Description: Wood frog larvae in 5AVP4. Photo Direction: NA		**Description:** Wood frog larvae in 5AVP4. Photo Direction: NA	



PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 13	Date: 03/08/24	Photo No. 14	Date: 05/30/24
Description: 5AVP5 flooded in early 2024. Photo Direction: SE		**Description:** 5AVP5 during low water levels. Photo Direction: E	

Photo No. 15	Date: 03/19/24	Photo No. 16	Date: 04/17/23
Description: Large cluster of wood frog egg masses in 5AVP5. Photo Direction: NA		**Description:** Wood frog egg mass & larvae in 5AVP5. Photo Direction: NA	

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 17	Date: 05/06/24	Photo No. 18	Date: 05/30/24
Description: Wood larvae in 5AVP5. Photo Direction: NA		**Description:** Wood frog larvae in 5AVP5. Hind leg development Photo Direction: NA	

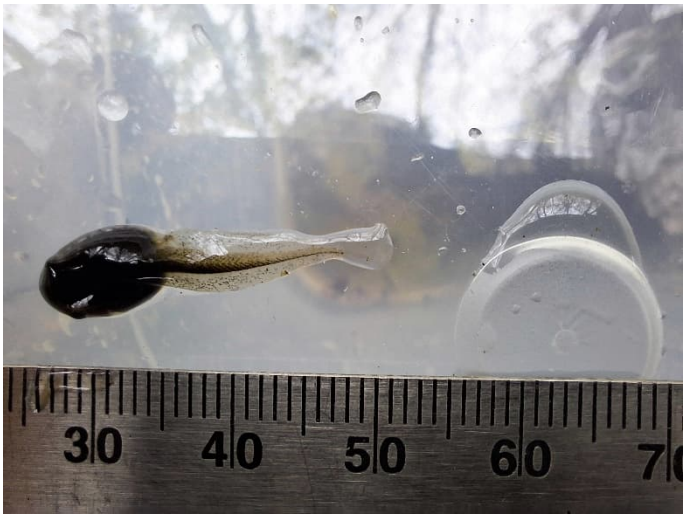


Photo No. 19	Date: 06/12/24	Photo No. 20	Date: 06/12/24
Description: Wood frog larvae in 5AVP5. Front and hind limb development. Nearing complete metamorphosis Photo Direction: NA		**Description:** Chain pickerel in 5AVP5. Photo Direction: NA	

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 21	Date: 04/17/23	Photo No. 22	Date: 03/19/24
Description: Fairy Shrimp in 5AVP5. Photo Direction: NA		**Description:** Spring peeper adult in 5AVP5. Photo Direction: NA	

Photo No. 23	Date: 05/06/24	Photo No. 24	Date: 03/19/24
Description: Green frog larvae in 5AVP5. Photo Direction: NA		**Description:** 5AVP7 during flooded conditions. Photo Direction: S	

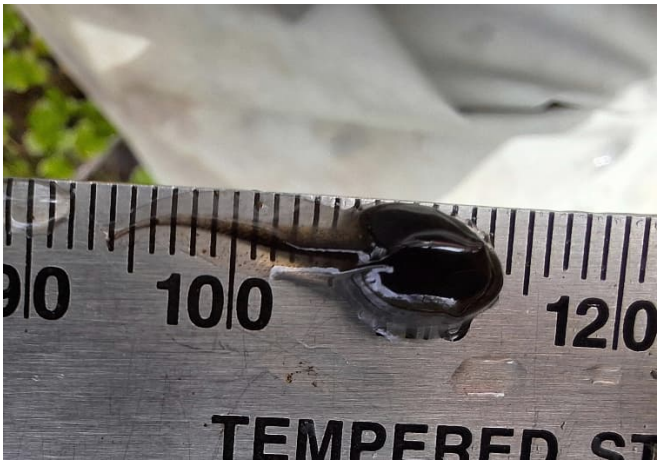
AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 25	Date: 05/30/24	Photo No. 26	Date: 03/19/24
Description: 5AVP7 during dry conditions. Photo Direction: N		Description: Wood frog egg masses in 5AVP7. Photo Direction: NA	

Photo No. 27	Date: 05/06/24	Photo No. 28	Date: 05/06/24
Description: Wood frog larvae in 5AVP7. Photo Direction: NA		Description: Spotted salamander egg mass in 5AVP7. Photo Direction: NA	



PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 29	Date: 03/19/24	Photo No. 30	Date: 05/30/24
Description: 5AVP9 during flooded conditions. Photo Direction: NE		**Description:** 5AVP9 during dry conditions. Photo Direction: N	

Photo No. 31	Date: 05/09/23	Photo No. 32	Date: 05/09/23
Description: Fairy Shrimp in 5AVP9 Photo Direction: NA		**Description:** Wood frog larvae in 5AVP9. Photo Direction: NA	

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 33	Date: 05/09/23	Photo No. 34	Date: 05/06/24
Description: Green frog adult in 5AVP9. Photo Direction: NA		**Description:** 5AVP10 during flooded conditions. Photo Direction: NE	

Photo No. 35	Date: 05/30/24	Photo No. 36	Date: 03/19/24
Description: 5AVP10 first observation of dry pool in 2024. Photo Direction: NE		**Description:** Wood frog egg masses in 5AVP10. Photo Direction: NA	

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 37	Photo No. 30	Photo No. 38	Date: 05/08/24

Description: Wood frog larvae in 5AVP10.

Photo Direction: NA

Description: 5AVP12 during flooded conditions.

Photo Direction: E

Photo No. 39	Date: 05/30/23	Photo No. 40	Date: 05/08/24

Description: 5AVP12 during dry conditions.

Photo Direction: W

Description: 5AVP12 dragonfly and mayfly nymphs

AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 41	Date: 05/08/24	Photo No. 42	Date: 05/09/23
Description: 5AVP12, Wood frog larvae Photo Direction: W		**Description:** 5AVP12, Wood frog larvae with front and hind limb development. Nearing complete metamorphosis Photo Direction: NA	

Photo No. 43	Date: 05/08/24	Photo No. 44	Date: 03/19/24
Description: Spring peeper larvae in 5AVP12. Photo Direction: NA		**Description:** 5AVP15, east end of pool during flooded conditions. Photo Direction: W	

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 45	Date: 06/12/23	Photo No. 46	Date: 05/06/24
Description: 5AVP15. East end of pool under dry conditions Photo Direction: W		**Description:** 5AVP15 during flooded conditions. West end of pool Photo Direction: E	

Photo No. 47	Date: 06/12/24	Photo No. 48	Date: 03/19/24
Description: 5AVP15 during dry conditions. Photo Direction: E		**Description:** 5AVP15. wood frog egg masses Photo Direction: NA	

AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 49	Date: 05/09/23	Photo No. 50	Date: 05/06/24
Description: 5AVP15, wood frog adult Photo Direction: NA		**Description:** 5AVP15, green frog adult. Photo Direction: NA	

Photo No. 51	Date: 05/06/24	Photo No. 52	Date: 05/06/24
Description: 5AVP15 green frog larvae. Photo Direction: NA		**Description:** 5AVP15, wood frog larvae Photo Direction: E	

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 53	Date: 05/30/24	Photo No. 54	Date: 06/12/24
Description: 5AVP15, wood frog larvae Photo Direction: E		**Description:** 5AVP15, wood frog metamorph. Photo Direction: NA	

Photo No. 55	Date: 05/06/24	Photo No. 56	Date: 06/27/24
Description: 5AVP16 during flooded conditions. Photo Direction: NE		**Description:** 5AVP16 during dry conditions. Photo Direction: E	

AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 57	Date: 03/19/24	Photo No. 58	Date: 05/06/24
Description: 5AVP16, wood frog egg masses. Photo Direction: NA		**Description:** 5AVP16, wood frog larvae. Photo Direction: NA	

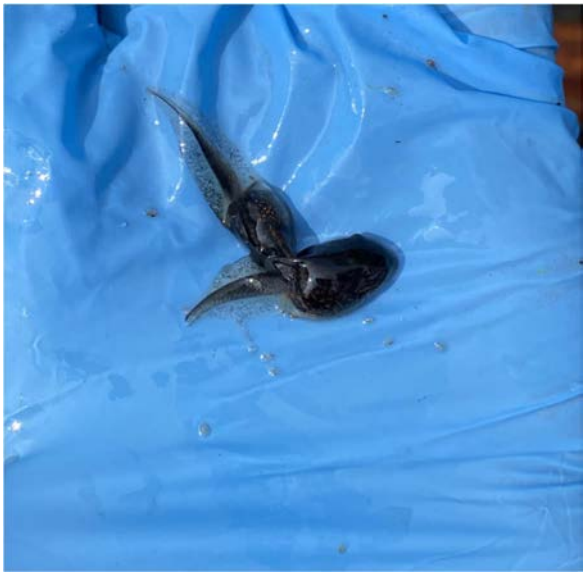
Photo No. 59	Date: 05/30/24	Photo No. 60	Date: 05/06/24
Description: Wood frog larvae in 5AVP16. Photo Direction: NA		**Description:** Green frog adult in 5AVP16. Photo Direction: NA	

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 61	Date: 04/20/23	Photo No. 62	Date: 04/20/23
Description: 5AVP21, south end of flooded pool Photo Direction: SW		**Description:** Wood frog larvae, amphipods and damselfly larvae in 5AVP21. Photo Direction: N	

Photo No. 63	Date: 05/09/23	Photo No. 64	Date: 05/07/24
Description: Wood frog larvae in 5AVP21. Photo Direction: NA		**Description:** Green frog larvae in 5AVP21 Photo Direction: NA	



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PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 65	Date: 05/29/24	Photo No. 66	Date: 07/11/24
Description: Eastern side of 5AVP21 flooded in spring 2024. Photo Direction: SE		**Description:** Eastern side of 5AVP21 during dry conditions. Photo Direction: NE	

Photo No. 67	Date: 05/29/24	Photo No. 68	Date: 05/29/24
Description: Green frog larvae developing hind legs in 5AVP21. Photo Direction: SW		**Description:** Northern section of 5AVP22 during dry conditions. Photo Direction: SW	

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 69	Date: 03/28/24	Photo No. 70	Date: 03/28/24
Description: Northern section of 5AVP22 during flooded conditions. Photo Direction: SW		**Description:** Southern section of 5AVP22 during flooded conditions. Photo Direction: S	

Photo No. 71	Date: 04/20/23	Photo No. 72	Date: 03/19/24
Description: Fairy Shrimp in 5AVP22. Photo Direction: NA		**Description:** Wood frog egg masses in 5AVP22. Photo Direction: NA	

AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 73	Date: 05/09/23	Photo No. 74	Date: 03/28/24
Description: Wood frog larvae in 5AVP22. Photo Direction: NA		**Description:** Wood frog egg mass in 5AVP22. Photo Direction: NA	

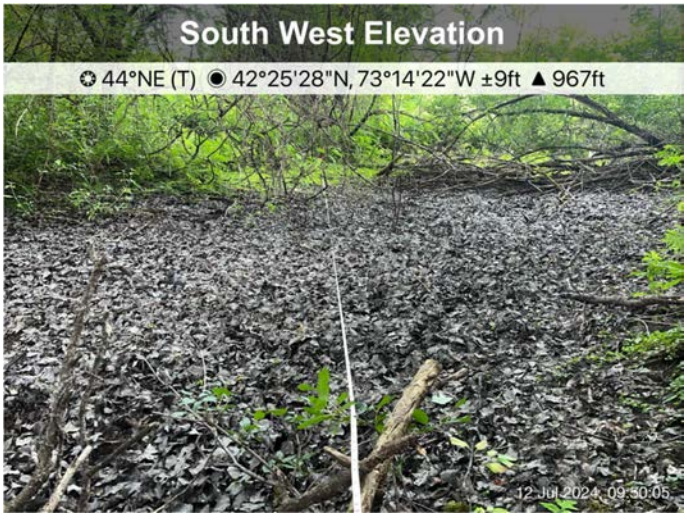
Photo No. 75	Date: 05/29/24	Photo No. 76	Date: 05/29/24
Description: Wood frog larvae in 05/29/24 with hind leg development. Photo Direction: NA		**Description:** Wood frog larvae in 05/29/24 with hind leg development. Photo Direction: NA	

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 77	Date: 05/29/24	Photo No. 78	Date: 05/29/24
Description: Juvenile chain pickerel in 5AVP22. Photo Direction: NA		**Description:** Dragonfly larvae in 5AVP22. Photo Direction: NA	

Photo No. 79	Date: 03/28/24	Photo No. 80	Date: 07/12/24
Description: 5AVP26 during flooded conditions. Photo Direction: SE		**Description:** 5AVP26 during dry conditions Photo Direction: NE	



AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 81	Date: 04/20/23	Photo No. 82	Date: 03/28/24
Description: Fairy shrimp in 5AVP26 Photo Direction: NA		**Description:** Wood frog egg mass in 5AVP26. Photo Direction: NA	

Photo No. 83	Date: 05/29/24	Photo No. 84	Date: 04/20/23
Description: Green frog larvae with hind leg development in 5AVP26. Photo Direction: NA		**Description:** Woodfrog egg masses in 5AVP26. Photo Direction: NA	

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 85	Date: 03/22/24	Photo No. 86	Date: 05/07/24
Description: 5AVP27 frozen in early spring 2024. Photo Direction: E		**Description:** 5AVP27 during dry conditions. Photo Direction: N	

Photo No. 87	Date: 04/17/23 (L); 05/01/18 (R)	Photo No. 88	Date: 04/21/23
Description: Fairy Shrimp in 5AVP27.		**Description:** 5AVP52 flooded. Photo Direction: SE	

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 89	Date: 08/09/24	Photo No. 90	Date: 05/07/24
Description: 5AVP52 during dry conditions. Photo Direction: SW		**Description:** Green frog larvae in 5AVP52 Photo Direction: N	

Photo No. 91	Date: 05/29/24	Photo No. 92	Date: 05/21/19
Description: Green frog adult in 5AVP52. Photo Direction: NA		**Description:** 5AVP52 wood frog tadpole. Photo Direction: NA	

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 93	Date: 03/25/24	Photo No. 94	Date: 05/07/24
Description: 5AVP55 flooded. Photo Direction: E		**Description:** 5AVP55 flooded Photo Direction: E	

Photo No. 95	Date: 06/13/24	Photo No. 96	Date: 05/21/19
Description: 5AVP55 during low-water conditions. Photo Direction: W/SW		**Description:** 5AVP55 wood frog tadpole. Photo Direction: NA	

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 97	Date: 05/07/24	Photo No. 98	Date: 05/29/24
Description: Spring peeper larvae in 5AVP55 Photo Direction: NA		**Description:** Green frog larvae in 5AVP55 Photo Direction: NA	

Photo No. 99	Date: 08/09/2024	Photo No. 100	Date: 05/07/24
Description: Green frog egg mass in 5AVP55 . Photo Direction: NA		**Description:** Minnows in 5AVP55. Photo Direction: NA	

AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 101	Date: 05/07/24	Photo No. 102	Date: 05/25/23
Description: 5AVP57 during flooded conditions. Photo Direction: N		**Description:** 5AVP57 during dry conditions. Photo Direction: N	

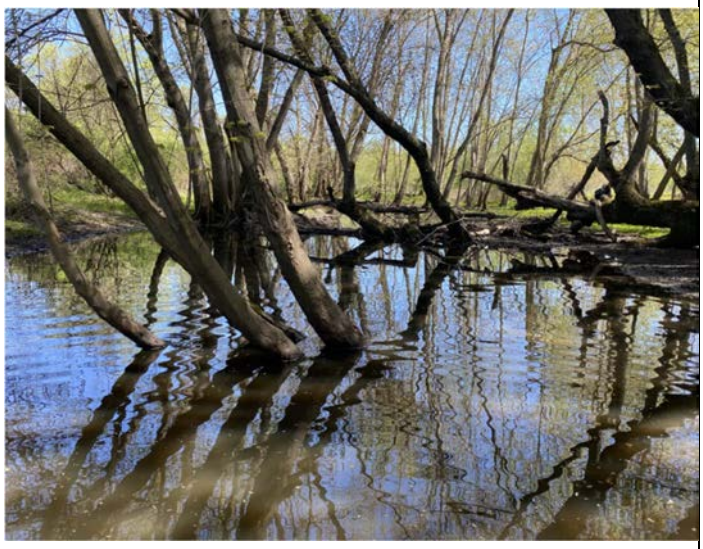


Photo No. 103	Date: 04/23/19
Description: 5AVP57 wood frog egg masses. Photo Direction: N	

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 104	Date: 04/27/18	Photo No. 105	Date: 08/11/22
Description: 5AVP61 flooded in the spring of 2018. Photo Direction: SE		**Description:** 5AVP61 during dry conditions in 2022. Photo Direction: SE	

Photo No. 106	Date: 05/07/24	Photo No. 107	Date: 07/10/24
Description: 5AVP61 flooded during spring 2024. Photo Direction: SE		**Description:** 5AVP61 during dry conditions in 2024. Photo Direction: E	

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 108	Date: 04/27/18	Photo No. 109	Date: 03/29/24
Description: 5AVP61 wood frog egg masses. Photo Direction: NA		**Description:** 5AVP61 wood frog egg masses. Photo Direction: NA	

Photo No. 110	Date: 05/10/23	Photo No. 111	Date: 05/07/24
Description: Wood frog larvae in 5AVP61. Photo Direction: NA		**Description:** Green frog adult in 5AVP61. Photo Direction: NA	

Attachment E
Vernal Pool Habitat Inventory Standard Operating Procedure

Vernal Pool Habitat Inventory Standard Operating Procedure

Vernal Pool Habitat Inventory Procedure

The initial steps in the baseline survey assessment of vernal pools will consist of: (1) compiling the existing information collected during previous surveys on relevant attributes of the selected vernal pools, namely, flora, topography, bottom sediment/soil composition, in-pool physical structure, surrounding land use, and relationship/proximity to other vernal pools; and (2) collecting additional information on those relevant attributes, as well as data on the general water and soil chemistry of the vernal pools, as described in the following paragraphs. The additional field survey data are described herein and will be recorded on Form VP-1 (Attachment 1). The same data will be collected, as appropriate, during and after implementation of the pilot study.

Plant Community Survey

A survey of the plant community will be conducted using randomly placed monitoring plots, line-intercept sampling, or other standard accepted methods that will provide detailed species-specific information and allow for a quantitative assessment of plant community composition, canopy cover, plant vigor/health, and presence of invasive plant species. The plant community survey will be conducted between June 15 and August 15.

To estimate percent cover of tree canopy, woody shrubs, and herbaceous plants (including sedges, rushes, and grasses) within each vernal pool, an acceptable vegetative survey procedure will be conducted (e.g., see Barbour et al. 1999 for acceptable methods). This may consist of randomly placed monitoring plots, line-intercept sampling, or other standard accepted method. One acceptable method is line-intercept sampling. This involves stretching a 100-foot tape across the pool from shoreline to shoreline and tallying the total length of each cover type or plant species that projects through that plane over the line (Barbour et al. 1999). Percent cover is then calculated as a function of total length of a particular cover type or plant species divided by the total length of the transect. Two to three transects will be measured across each pool and the dominant plant species within each of the various plant strata will be recorded, including observations of any invasive plant. Pools less than 0.2 acre in size will have two transects, and pools between 0.2 and 1.0 acre will have three transects. Plant species will be identified using the U.S. Department of Agriculture Natural Resources Conservation Service Plants Database (USDA Plants Database) for the region (i.e., Massachusetts) (USDA NRCS 2022) or other acceptable source (e.g., Native Plant Trust).

Hydrology and Bathymetric/Topographic Survey

Baseline data will be collected on hydroperiod and maximum flooding depths, including an assessment of surface water flooding conveyance into and out of each pool. These hydrologic data

will be collected during spring high-water periods (e.g., April and May), and will also be used to generate surface topographic detail (or bathymetry while the pools are inundated).

Water depth (or evidence of water depths depending upon the conditions) will be measured or determined at two- to five-foot intervals (depending on how flat or steep the topography is) along a transect from shoreline to shoreline to map the relative topography within each pool. The start and stop location of each transect will be surveyed by GPS and points with corresponding water depths will be plotted along that line in GIS. For pools that are too deep to allow running the transects from shoreline to shoreline, data will be collected up to approximately three feet in depth. Significant topographic or physical features within the pool (e.g., large hummocks or windthrown trees) that are not intercepted by the transect will be characterized and located by GPS.

When applicable, hydrologic monitoring will be conducted as part of both baseline surveys as well as after application of amendments; and the hydrologic data generated on depth and duration of surface water flooding will be used in part to assess the potential impact of amendment applications with applicable vernal pools. The hydrologic monitoring may be done with the use of either a staff gauge or pressure transducers.

If a staff gauge is used, it will be installed at each pool in the deepest portion of the pool. The staff gauge will be anchored to a steel rebar driven at least four feet into the ground to ensure that it remains stable. All water depths and surface topographic data will be tied to a known level on the staff gauge. In pools that will be subject to excavation and restoration backfilling, the staff gauge will be tied to a vertical benchmark located outside of the disturbance zone.

When pressure transducers are used, monitoring of hydrologic conditions within each applicable vernal pool will be accomplished through the installation of a two-inch slotted polyvinyl chloride (PVC) pipe monitoring wells. The monitoring wells will be installed manually using a bucket auger with extensions to achieve depths of three to four feet below the ground surface. Monitoring well locations and elevation will be surveyed so that the water elevations can be referenced to an established vertical datum (i.e., the North American Vertical Datum of 1988 [NAVD88]). One pressure transducer datalogger (e.g., Solinst® 3001 Levelogger) will be installed in each well to collect quasi-continuous data on water levels (e.g., at six- or 12-hour intervals) throughout the monitoring period. One barologger (e.g., Solinst® Barologger Edge) will also be deployed on site to monitor barometric pressure. This will provide accurate compensation for impacts of atmospheric pressure on water level measurements taken with the pressure transducer. Manual readings with an electronic water level probe will be taken at times of deployment and removal of pressure transducers to enable conversion of water level readings to an elevation.

Vernal Pool Breeding Survey

Surveys will be conducted to collect data on use of the vernal pool(s) by obligate vernal pool species.[1] Egg mass counts of the obligate amphibian species and a survey for fairy shrimp will be conducted for baseline data and as needed for subsequent monitoring. Observations of mated pairs will also be recorded. These data will be collected as early as possible during the vernal pool breeding season, considering seasonal trends documented to be occurring in the year of the survey. Specifically, the egg mass and fairy shrimp counts are anticipated to occur between early April and late May, but may need to be adjusted based upon weather and other factors. Two rounds of egg mass counts will be conducted in each pool to encompass the entire egg-deposition period for both wood frogs and spotted salamanders. These surveys will be spaced out over approximately three weeks during the early portion of the breeding season, but may be adjusted based on weather and local migration patterns.

Dip net surveys will be conducted to monitor amphibian larval development and assess recruitment into the local population and to assess aquatic macroinvertebrate community structure within each pool. Up to three rounds of dip net surveys for amphibian larvae and macroinvertebrates will be conducted, spaced out through the larval development period. This is expected to result in surveys every two to three weeks from mid-May to early July in each pool, but may be adjusted based upon weather and larval development rates.

The obligate species and dip net surveys will be conducted by a team of two biologists from within the pool wearing chest-waders. Egg mass counts will be called out by the first observer, with confirmation and recording each count by the second observer. Egg mass locations will be photo-documented, marked in the field and recorded on maps (or via GPS) as necessary to avoid double-counting. Egg mass counts late in the development process are recognized to be difficult as the egg masses deteriorate, so best professional judgement with a second observer concurrence will be needed. Sweeps will target all microhabitats within the pool using a D-frame shaped dip net. During larval development, contents of each sweep (e.g., leaves and detritus) will be emptied into a shallow pan containing one to two inches of water and inspected. Total counts of each larval amphibian species and each macroinvertebrate down to the family level (at a minimum) will be recorded. Approximate developmental stage of tadpoles and salamander larvae will also be recorded following Gosner (1960) and Hurney et al. (2015), respectively. These sampling methods are consistent with those described in Calhoun and Klemens (2002), Egan and Paton (2004, 2008), and Heyer et al. (1994).

[1] In Massachusetts, obligate vernal pool species listed by the Massachusetts Natural Heritage and Endangered Species Program are wood frogs, spotted salamanders, blue-spotted salamanders, Jefferson salamanders, marbled salamanders, and fairy shrimp.

Additional Data Collection

Soil profile descriptions will be developed, including an assessment of the underlying substrate to between three and four feet in depth (including the surface leaf-layer and organic duff layer) to understand the soil or substrate stratigraphy and the relative influence of groundwater versus surface water on pool hydrology. Vernal pool soil composition will be categorized in the field using a hand auger and/or tile spade shovel and will generally be inspected to a depth of 18 to 24 inches. One profile description per pool will be documented between the outer edge and deepest part of the pool. The information collected for each soil profile will include soil horizons, depth, texture, color, and the presence or absence of redoximorphic features (mottles and other features). Colors of the soil matrix and mottles will be identified using Munsell Soil Color Charts. All hydric soil determinations will be based on criteria established in *Field Indicators for Identifying Hydric Soils in New England* (NEIWPCC 2018) and guidance in the 2012 U.S. Army Corps of Engineers Regional Wetland Manual.

In-pool physical structure other than woody shrubs (which will be measured during the line-intercept sampling) will be quantified within each pool. Observations of coarse woody debris, large boulders, or exposed root wads will be located via GPS during the pool inspection with the approximate length, width, and/or diameter recorded in inches. Fine woody debris will be estimated as a total percent cover of the entire pool area.

The habitat and land use conditions surrounding each vernal pool will be characterized as shown on Form VP-1 (Attachment 1). This will include characterizing the approximate percentage of different habitat cover types within both the 100-foot buffer around the vernal pool (the vernal pool envelope) and 100- to 750-foot zone (the critical terrestrial habitat) (using designations from Calhoun and Klemens 2002). The landscape setting of the pool will also be characterized, noting whether it is a discrete depression in the floodplain or part of a larger wetland and also the juxtaposition with other vernal pools to assess the potential for vernal pool network factors.

In addition, data will be collected on the general water and soil chemistry of each vernal pool (excluding polychlorinated biphenyl [PCB] concentrations, which will be determined separately). The collection of the general water quality data will involve the measurement of pH, temperature, alkalinity, hardness, and dissolved oxygen in the water using a YSI field meter (or similar). The collection of general soil chemistry data will involve the collection and analysis of soil samples for pH, organic carbon content, moisture content, and grain size distribution.[2] A composite sample of the top eight inches of soil from three locations within the pool will be mixed in a stainless-steel bowl and placed into jars for laboratory analysis of these parameters.

[2] For this purpose, soil samples will be collected using the procedures in General Electric Company's most recent *Field Sampling Plan/Quality Assurance Project Plan* (Arcadis 2023).

References

Arcadis, 2023. *Field Sampling Plan/Quality Assurance Project Plan*. Prepared for General Electric Company. Revised July 2023.

Barbour, M.G., J.H. Burk, W.D. Pitts, F.S. Gilliam and M.W. Schwartz. 1999. T*errestrial Plant Ecology, Third Edition*. Benjamin Cummings Publishing Company.

Calhoun, A. J. K., and M. W. Klemens, 2002. Best Development Practices: *Conserving Pool-Breeding Amphibians in Residential and Commercial Developments in the Northeastern United States*. MCA Technical Paper No. 5, Metropolitan Conservation Alliance, Wildlife Conservation Society, Bronx, New York.

Egan, R.S., and P.W.C. Paton, 2004. "Within-Pond Parameters Affecting Oviposition by Wood Frogs and Spotted Salamanders." *Wetlands* 24(1):1–13.

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Gosner, K.L. 1960. "A Simplified Table for Staging Anuran Embryos and Larvae with Notes on Identification." *Herpetologica* 16:183–190.

Heyer, W.R., M.A. Donnelly, R.W. McDiarmid, L.C. Hayek and M.S. Foster, 1994. *Measuring and Monitoring Biological Diversity: Standard Methods for Amphibians*. Smithsonian Institution Press, USA.

Hurney, C.A., S.K. Babcock, D.R. Shook, T.M. Pelletier, S.D. Turner, J. Maturo, S. Cogbill, M.C. Snow, and K. Kinch. 2015. "Normal Table of Embryonic Development in the Four-Toed Salamander, *Hemidactylium scutatum*." Mechanisms of Development 136:99-110.

NEIWPCC (New England Interstate Water Pollution Control *Commission*), 2018. *Field Indicators for Identifying Hydric Soils in New England, Version 4*. Prepared by the New England Hydric Soils Technical Committee.

USACE (U.S. Army Corps of Engineers), Engineer Research and Development Center, 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)*. ERDC/EL TR-12-1.

USDA NRCS (U.S. Department of Agriculture Natural Resources Conservation Service), 2022. The PLANTS Database (http://plants.usda.gov, 07/11/2022). National Plant Data Team, Greensboro, North Carolina.

Attachment 1: Form VP-1: Vernal Pool Characterization Form[3]

Pool ID _____
Observers: _____
Location of vernal pool: _____
Survey date(s): _____
Coordinates (decimal degrees)

Latitude(X): _____ Longitude (Y): _____

A. General Vernal Pool Characteristics

1. Landscape setting (check all that apply)
   - [ ] Discrete depression in floodplain
   - [ ] Pool part of a larger wetland
   - [ ] Pool part of a pool network (____ pools within 1,000 feet)
2. Vernal pool condition (describe any recent modification to the pool, including natural changes such as beaver impoundments): _____
_____ _____
3. Describe the aquatic resource type(s) in pool (e.g., forested, scrub-shrub, etc.)
_____
4. Pool canopy cover (%): _____
5. Predominant substrate (e.g., mineral soil, organic matter): _____
6. Pool measurements:
   a. Approximate pool dimensions at maximum inundation condition (include units):
   Length _____ Width: _____ Area: _____
   b. Maximum water depth at deepest point (include units): _____
7. Hydrology
   a. Estimated month pool dries, or if never: _____
   b. Inlet/outlet (none, temporary, permanent): _____
8. Water quality (clear, high turbidity, high algal content, tannic): _____

B. Plant Community: Inventory tree and vine data obtained in a 30' radius plot; shrubs in a 15' radius plot; and herbaceous plant data in a 5' radius plot.

% Cover:	_____	_____	_____	_____	_____
	Trees (> 20')	Shrubs (< 20')	Woody vines	Mosses	Herbaceous

Plant Lists (species that comprise 10% or more of the vegetative cover in each stratum or any amount of an invasive plant species; "*" designates a dominant plant species for the stratum):

Strata	Plant Species	Strata	Plant Species
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

[3] Adapted from USACE New England Division Vernal Pool Characterization Form

Strata: T=Tree, S=Shrub, L=Liana (vine), H=Herb (Includes grasses, herbs, pterophytes [ferns], lichens, woody seedlings, and mosses)

Identify any federal or state-listed threatened, endangered, or other rare species in or adjacent to the vernal pool: _____

C. Soil/Substrate Composition

Soil Survey Unit _____ Drainage Class _____

Texture (upper part) _____ Depth _____

Representative Soil Pit Log

Soil Horizon	Depth (inches)	Color	Soil Texture	Mottling

D. In-Pool Physical Habitat Structure

Describe physical structure in the vernal pool which may contribute to vernal pool habitat functions:

[ ] Coarse woody debris _____% cover: Describe _____
[ ] Fine woody debris _____% cover: Describe _____
[ ] Shrub and herbaceous stems _____%: Describe _____
[ ] Windthrown trees and/or root wads _____%: Describe _____
[ ] Hummocks _____%: Describe _____
[ ] Other _____%: Describe _____

E. Surrounding Land Use

1. Vernal Pool Envelope (0-100 feet from pool edge)[4]

[ ] Forested _____%
[ ] Shrub _____%
[ ] Open (e.g., meadow, agriculture, golf course) _____%
[ ] Developed (includes area beyond barriers) _____%

[4] As defined by Calhoun and Klemens (2002)

2. Critical Terrestrial Habitat (100-750 ft from pool edge)[5]

[ ] Forested _____%
[ ] Shrub _____%
[ ] Open (e.g., meadow, agriculture, golf course _____ %
[ ] Developed (includes area beyond barriers) ___% _

F. General Water and Soil Chemistry Water Quality

Water:

[ ] pH _____
[ ] Temperature _____
[ ] Conductivity _____
[ ] Dissolved Oxygen_____

Soil:

[ ] pH _____
[ ] Organic Carbon Content _____

[5] As defined by Calhoun and Klemens (2002)

GENERAL NOTES

1. Topographic Survey was performed by Foresight Land Services on December 12, 2024, using Electronic Total Station with Data Collector.

2. Plan was compiled on a PC-based computer using AutoCAD Civil 3D 2018.

3. Contours are computer-generated interpolations, edited to generally conform to field observations. Contour interval = 1 (one) foot. Contractor shall verify critical elevations and grades in the field prior to construction.

4. Horizontal Datum is based on NAD83.

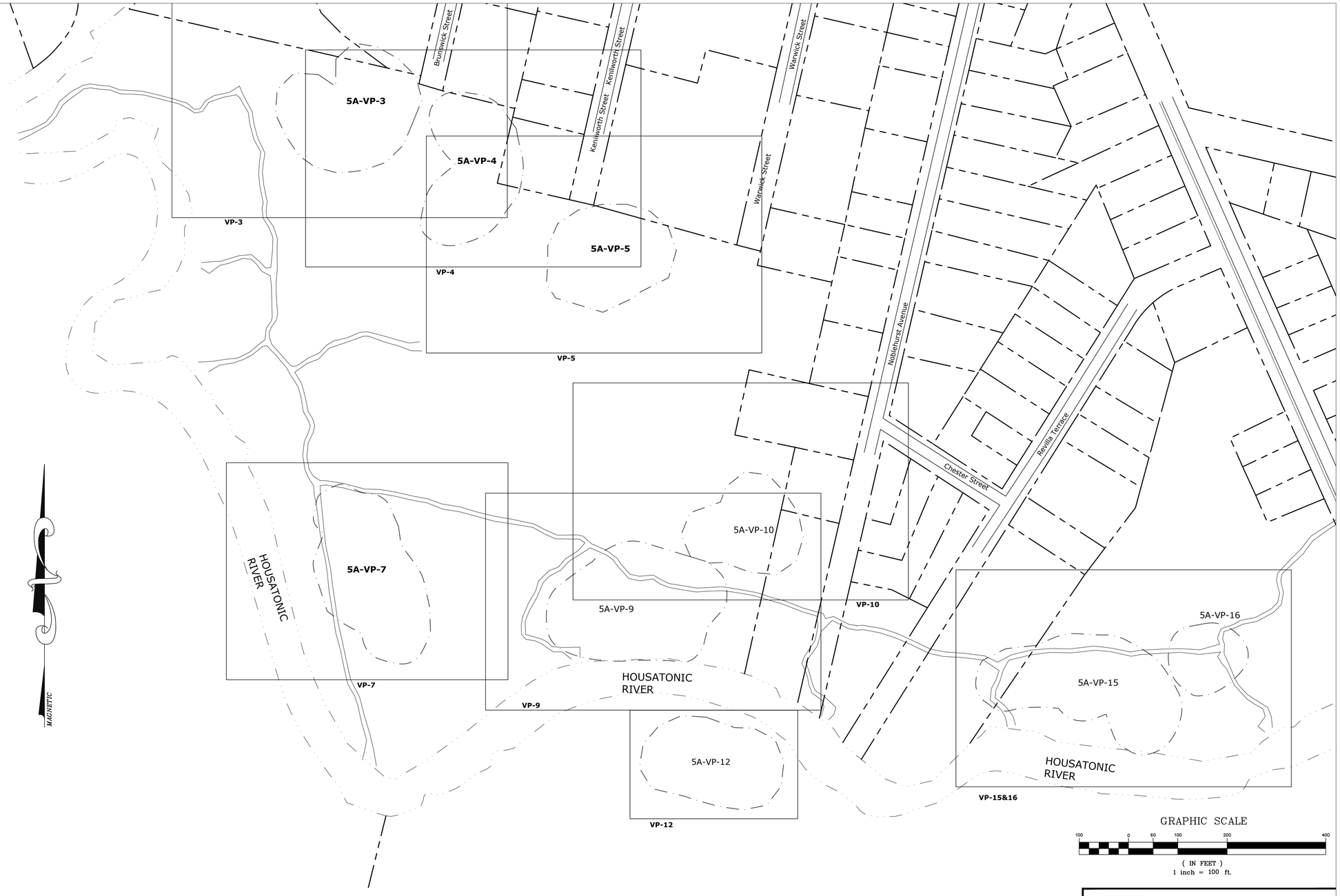
5. Vertical Datum is based upon North American Vertical Datum (NAVD88).

6. The locations and information about underground pipes, utilities or other structures are compiled from available record data and visible field evidence and are not represented as being exact or complete. Prior to beginning excavation, the excavator shall give adequate advance notice to the Dig Safe Center, the municipal and/or state Public Works Department, and private utility companies, to allow for field location of facilities in the vicinity.

7. If Contractor observes any field conditions which vary significantly from what is shown on these plans, the contractor shall immediately notify the Owner and Engineer for resolution of the conflicting information.

8. The Contractor shall record tie measurements, depths, dimensions, materials, field conditions and other pertinent data about all underground pipes, utilities and structures encountered during the work, both existing and constructed. Contractor shall submit Record drawings with this information to the Owner and Engineer prior to completion of the work.

9. Contractor shall immediately report any damage to existing pipes, utilities, or structures to the Owner and Engineer, and obtain directions as to repair, replacement or abandonment.



GRAPHIC SCALE

100 0 60 100 200 400

(IN FEET)
1 inch = 100 ft.

LEGEND

- UTILITY POLE
- SEWER MANHOLE
- SIGN
- CONIFEROUS TREE
- DECIDUOUS TREE
- EDGE OF ASPHALT
- EDGE OF PATH
- EDGE OF GRAVEL
- EDGE OF RIVER
- 1' CONTOUR LINE
- 5' CONTOUR LINE
- APPROX. PROPERTY LINE

TOPOGRAPHIC SURVEY PLAN - VERNAL POOLS

Prepared For

ANCHOR QEA

HOUSATONIC RIVER

PITTSFIELD, MASSACHUSETTS

FORESIGHT LAND SERVICES
ENGINEERING SURVEYING PLANNING
FORESIGHT LAND SERVICES, INC.
1496 WEST HOUSATONIC STREET · PITTSFIELD, MA 01201
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SCALE: AS NOTED	DWN. BY:SCT	CHK. BY: HMB
DATE: April 17, 2025	DWG. NO. S3208W04 VERNALS	
JOB NO. S3208	Layout Tab: STK0	

GENERAL NOTES

1. Topographic Survey was performed by Foresight Land Services on December 12, 2024, using Electronic Total Station with Data Collector.

2. Plan was compiled on a PC-based computer using AutoCAD Civil 3D 2018.

3. Contours are computer-generated interpolations, edited to generally conform to field observations. Contour interval = 1 (one) foot. Contractor shall verify critical elevations and grades in the field prior to construction.

4. Horizontal Datum is based on NAD83.

5. Vertical Datum is based upon North American Vertical Datum (NAVD88).

6. The locations and information about underground pipes, utilities or other structures are compiled from available record data and visible field evidence and are not represented as being exact or complete. Prior to beginning excavation, the excavator shall give adequate advance notice to the Dig Safe Center, the municipal and/or state Public Works Department, and private utility companies, to allow for field location of facilities in the vicinity.

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LEGEND

- UTILITY POLE
- SEWER MANHOLE
- SIGN
- CONIFEROUS TREE
- DECIDUOUS TREE
- EDGE OF ASPHALT
- EDGE OF PATH
- EDGE OF GRAVEL
- EDGE OF RIVER
- 1' CONTOUR LINE
- 5' CONTOUR LINE
- APPROX. PROPERTY LINE

GRAPHIC SCALE

100 0 60 100 200 400

(IN FEET)
1 inch = 100 ft.

TOPOGRAPHIC SURVEY PLAN - VERNAL POOLS
Prepared For
ANCHOR QEA

HOUSATONIC RIVER
PITTSFIELD, MASSACHUSETTS

FORESIGHT LAND SERVICES
ENGINEERING
SURVEYING
PLANNING
FORESIGHT LAND SERVICES, INC.
1496 WEST HOUSATONIC STREET · PITTSFIELD, MA 01201
TEL: (413) 499-1560 FAX: (413) 499-3207 WWW.FORESIGHTLAND.COM

SCALE: AS NOTED	DWN. BY:SCT	CHK. BY: HMB
DATE: April 17, 2025	DWG. NO. S3208W04 VERNALS	
JOB NO. S3208	Layout Tab: STK0	

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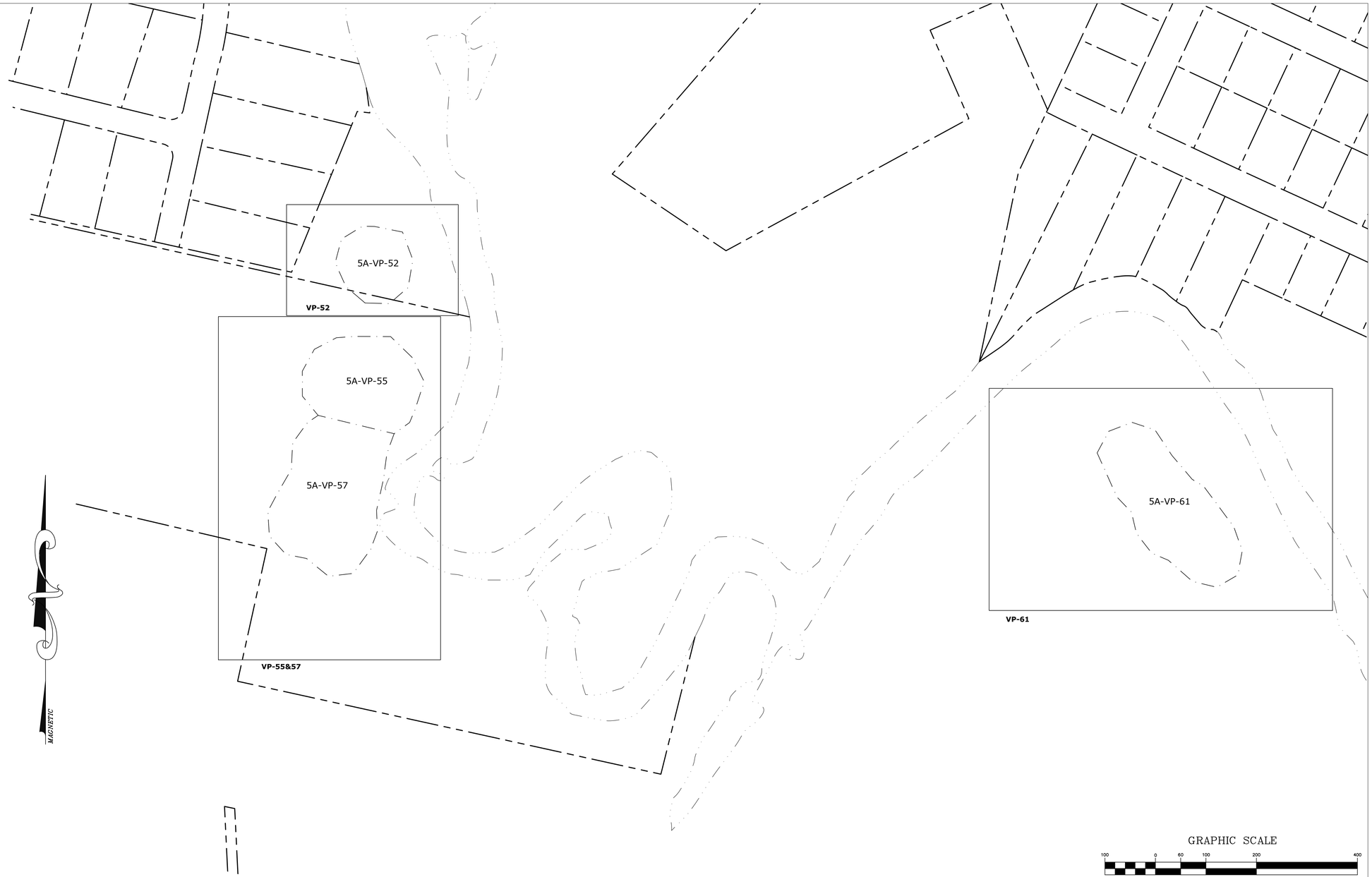

GRAPHIC SCALE

100 0 60 100 200 400

(IN FEET)
1 inch = 100 ft.

LEGEND

- UTILITY POLE
- SEWER MANHOLE
- SIGN
- CONIFEROUS TREE
- DECIDUOUS TREE
- EDGE OF ASPHALT
- EDGE OF PATH
- EDGE OF GRAVEL
- EDGE OF RIVER
- 1' CONTOUR LINE
- 5' CONTOUR LINE
- APPROX. PROPERTY LINE

TOPOGRAPHIC SURVEY PLAN - VERNAL POOLS
Prepared For
ANCHOR QEA

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SCALE: AS NOTED	DWN. BY:SCT	CHK. BY: HMB
DATE: April 17, 2025	DWG. NO. S3208W04 VERNALS	
JOB NO. S3208	Layout Tab: STK0	

NAD 83

GENERAL NOTES

1. Horizontal Datum is based upon North American Datum (NAD 83), Massachusetts State Plane Coordinate System

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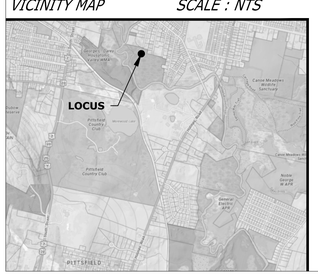
VICINITY MAP *SCALE : NTS*



N/F
General Electric Co

N/F
James & Valerie Solon Living Trust
Book 5858 Page 149

N/F
Steven Peplowski
Book 3362 Page 69TE

Brunswick Street

Existing Footpath

5A-VP-3

5A-VP-4

10" Ash, 10" Maple, 12" Cherry, 20" Maple, 12" Cherry, 14" Maple, 12" Ash, 10" Maple, 10" Maple, Twin 14" Cherry, 10" Maple, 14" Maple, 14X2" Ash, Ash Cluster, 12" Maple, 10" Cherry, 12" Ash, 24" Ash, 12" Maple, 12" Maple, 14" Ash, 14" Maple, 10" Cherry, 10" Oak, 22" Oak, 22" Oak, 12" Cherry, 16" Maple, 10" Maple, 18" Maple, 16" Cherry, 16" Maple, 14" Maple, 20" Maple, 24" Oak, 14" Maple, 14" Maple, 16" Cherry, 12" Oak, 14" Maple, 12" Oak, Triple 12" Ash, 12" Maple, Twin 36" Maple, 14" Maple, 12" Maple, 16" Maple, 32" Ash, 28" Ash, 12" Ash, 26" Ash, Twin 12" Maple, 14" Maple, Twin 10" Maple, 30" Ash, 14" Ash, 36" Maple, 12" Maple, 18" Ash, 24" Ash, 22" Ash, 24" Ash, 24" Ash, 24" Maple, Twin 12" Ash, Twin 24" Maple, 14" Maple, 12" Maple, 22" Maple, Maple Cluster, 10" Cherry, 16" Oak, 12" Ash, 12" Ash, 10" Ash, 16" Ash, 18" Oak, 14" Ash, 10" Oak, 10" Ash, 18" Oak, 13" Oak, Twin 12" Ash, Twin 12" Maple, 14" Ash, 12" Maple, 14" Ash

Twin 36" Maple W/TBM 11521
Nail
Elev. = 962.58'

Maple Cluster W/TBM 11579
Pk Nail in Root
Elev. = 963.51'

12" Oak W/TBM 4086
Spike in Root
Elev. = 962.27'

LEGEND

- TEMPORARY BENCHMARK
- CONIFEROUS TREE
- DECIDUOUS TREE
- 50 FOOT OFFSET TO VERNAL POOL
- EDGE OF RIVER
- 1' CONTOUR LINE
- 5' CONTOUR LINE
- APPROXIMATE PROPERTY LINE

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

TOPOGRAPHIC SURVEY
Prepared For
ANCHOR QEA
5A-VP-3
HOUSATONIC RIVER
PITTSFIELD, MASSACHUSETTS

FORESIGHT LAND SERVICES
ENGINEERING SURVEYING PLANNING
FORESIGHT LAND SERVICES, INC.
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SCALE: 1"=20'	DWN. BY:DRB	CHK. BY: HMB
DATE: February 6, 2025	DWG. NO. S3208W04 VERNALS	
JOB NO. S3208	Layout Tab: VP-3	

GENERAL NOTES

1. Horizontal Datum is based upon North American Datum (NAD 83), Massachusetts State Plane Coordinate System

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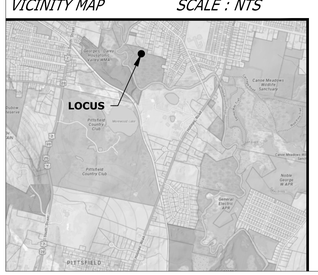
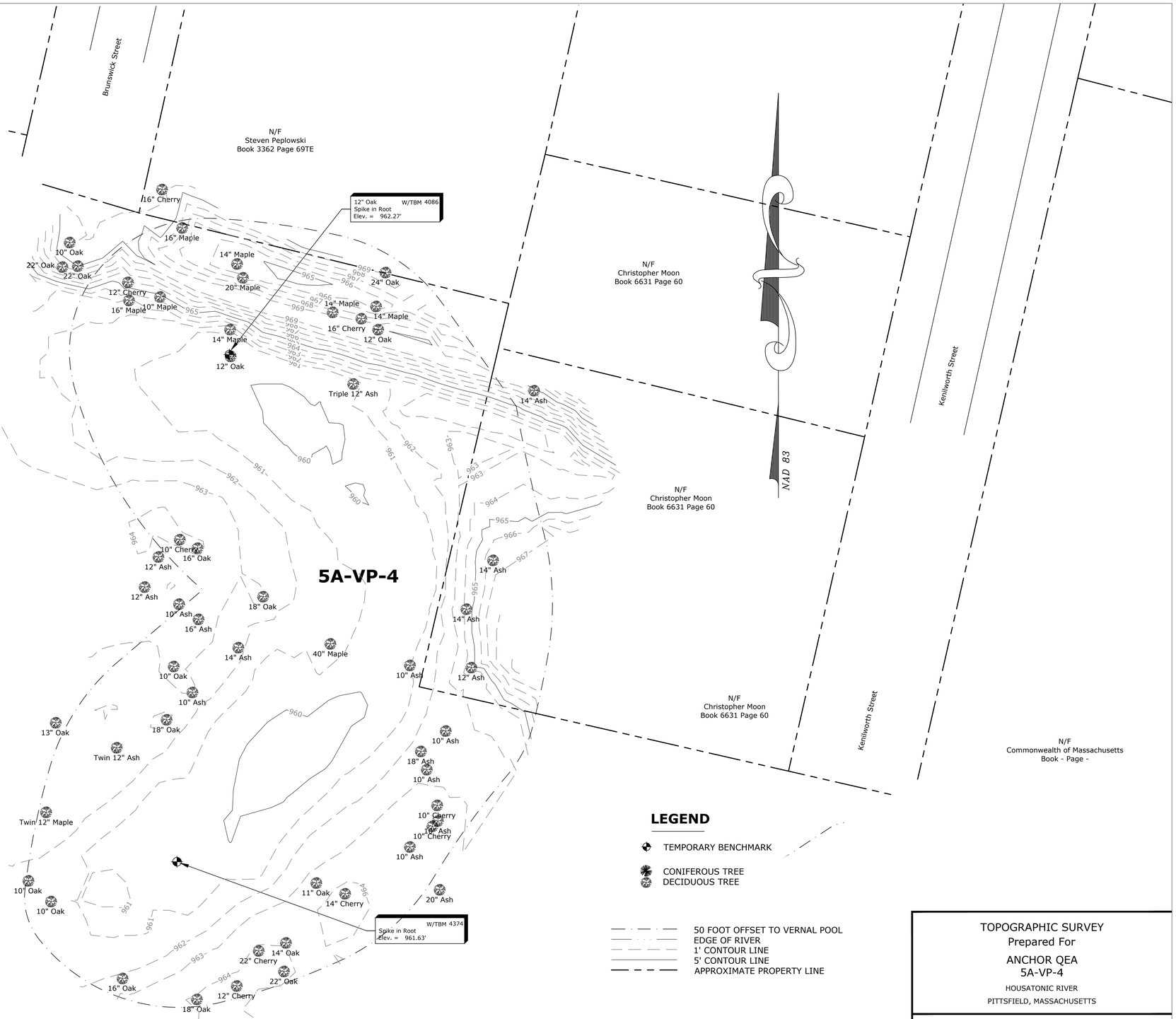
VICINITY MAP *SCALE : NTS*





LEGEND

- TEMPORARY BENCHMARK
- CONIFEROUS TREE
- DECIDUOUS TREE
- 50 FOOT OFFSET TO VERNAL POOL
- EDGE OF RIVER
- 1' CONTOUR LINE
- 5' CONTOUR LINE
- APPROXIMATE PROPERTY LINE

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

TOPOGRAPHIC SURVEY
Prepared For
ANCHOR QEA
5A-VP-4
HOUSATONIC RIVER
PITTSFIELD, MASSACHUSETTS

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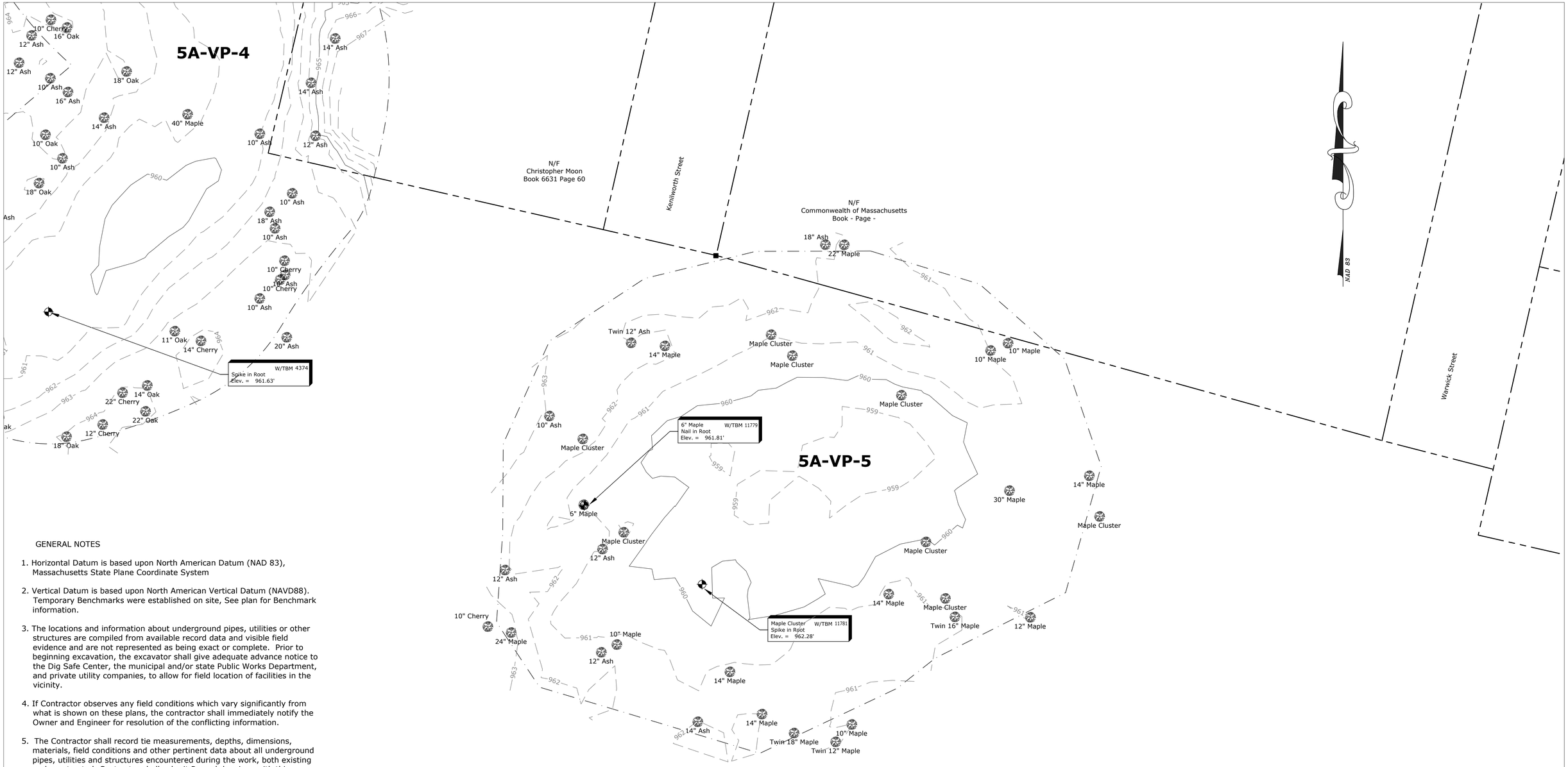
TEL: (413) 499-1560 FAX: (413) 499-3307 WWW.FORESIGHTLAND.COM

SCALE: 1"=20'	DWN. BY:SCT	CHK. BY: HMB
DATE: January 9, 2025	DWG. NO. S3208W04 VERNALS	
JOB NO. S3208	Layout Tab: VP-4	



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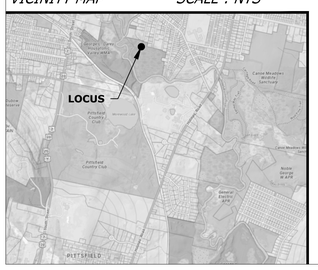
VICINITY MAP *SCALE : NTS*



LEGEND

- TEMPORARY BENCHMARK
- BOUND FOUND
- CONIFEROUS TREE
- DECIDUOUS TREE
- 50 FOOT OFFSET TO VERNAL POOL
- EDGE OF RIVER
- 1' CONTOUR LINE
- 5' CONTOUR LINE
- APPROXIMATE PROPERTY LINE

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

1 inch = 20 ft.

TOPOGRAPHIC SURVEY
Prepared For
ANCHOR QEA
5A-VP-5
HOUSATONIC RIVER
PITTSFIELD, MASSACHUSETTS

FORESIGHT LAND SERVICES
ENGINEERING SURVEYING PLANNING
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SCALE: 1"=20'	DWN. BY:DRB	CHK. BY: HMB
DATE: February 12, 2025	DWG. NO. S3208W04 VERNALS	
JOB NO. S3208	Layout Tab: VP-5	

GENERAL NOTES

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LEGEND

- TEMPORARY BENCHMARK
- SEWER MANHOLE
- UTILITY POLE
- CONIFEROUS TREE
- DECIDUOUS TREE

- 50 FOOT OFFSET TO VERNAL POOL
- EDGE OF RIVER
- 1' CONTOUR LINE
- 5' CONTOUR LINE
- APPROXIMATE PROPERTY LINE

VICINITY MAP *SCALE : NTS*

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

TOPOGRAPHIC SURVEY
Prepared For
ANCHOR QEA
5A-VP-7
HOUSATONIC RIVER
PITTSFIELD, MASSACHUSETTS

FORESIGHT LAND SERVICES
ENGINEERING SURVEYING PLANNING
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SCALE: 1"=20'	DWN. BY:SCT	CHK. BY: HMB
DATE: January 9, 2025	DWG. NO. S3208W04 VERNALS	
JOB NO. S3208	Layout Tab: VP-7	

LEGEND

- TEMPORARY BENCHMARK
- SEWER MANHOLE
- CONIFEROUS TREE
- DECIDUOUS TREE
- 50 FOOT OFFSET TO VERNAL POOL
- EDGE OF RIVER
- 1' CONTOUR LINE
- 5' CONTOUR LINE
- APPROXIMATE PROPERTY LINE

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NAD 83

Existing Footpath

5A-VP-9

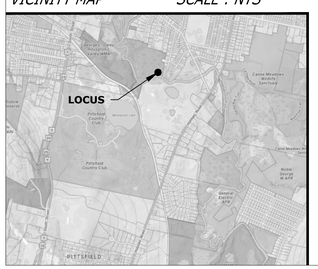
Twin 14" Ash
14" Ash
Twin 15" Maple
12" Ash
Twin 24" Ash
Twin 12" Maple
20" Ash

Twin 14" Maple
15" Maple
13" Maple
15" Maple
13" Maple
14" Maple
5" Maple
12" Maple
Twin 13" Maple
11" Maple
14" Maple
26" Maple
13" Maple
12" Maple

14" Maple W/TBM 6392
Spike in Root
Elev. = 964.80'

HOUSATONIC RIVER

VICINITY MAP SCALE : NTS



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

TOPOGRAPHIC SURVEY
Prepared For
ANCHOR QEA
5A-VP-9
HOUSATONIC RIVER
PITTSFIELD, MASSACHUSETTS

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SCALE: 1"=20'	DWN. BY:DRB	CHK. BY: HMB
DATE: January 9, 2025	DWG. NO. S3208W04 VERNALS	
JOB NO. S3208	Layout Tab: VP-9	

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LEGEND

- TEMPORARY BENCHMARK
- CONIFEROUS TREE
- DECIDUOUS TREE
- 50 FOOT OFFSET TO VERNAL POOL
- EDGE OF RIVER
- 1' CONTOUR LINE
- 5' CONTOUR LINE
- APPROXIMATE PROPERTY LINE

20" Maple W/TBM 12205
PK Nail in Base
Elev. = 960.77'

24" Ash W/TBM 12269
Nail in Base
Elev. = 962.32'

24" Ash W/TBM 12897
PK In Root
Elev. = 960.93'

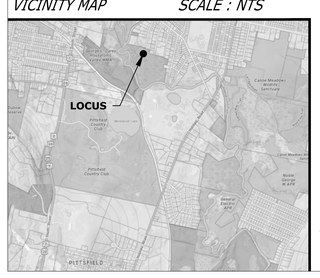
5A-VP-10

5A-VP-9

Triple 20" Maple
20" Ash
10" Ash
Ash Cluster
22" Ash
16" Ash
15" Maple
N/F
Jenna Marchione
Book 6385 Page 272
14" Ash
20" Maple
14" Maple
10" Maple
24" Maple
Ash Cluster
12" Maple
12" Ash
Twin 14" Ash
22" Ash
Twin 15" Maple
Twin 24" Ash
Twin 12" Maple
20" Ash
Maple Cluster
Twin 12" Maple
12" Maple
Twin 14" Ash
24" Ash
30" Ash
N/F
City of Pittsfield
Ash Cluster
10" Maple
Twin 13" Maple
11" Maple
Existing Footpath
Noblehurst Avenue
NAD 83

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

VICINITY MAP SCALE : NTS



TOPOGRAPHIC SURVEY
Prepared For
ANCHOR QEA
5A-VP-10
HOUSATONIC RIVER
PITTSFIELD, MASSACHUSETTS

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SCALE: 1"=20'	DWN. BY:DRB	CHK. BY: HMB
DATE: February 24, 2025	DWG. NO. S3208W04 VERNALS	
JOB NO. S3208	Layout Tab: VP-10	

LEGEND

- TEMPORARY BENCHMARK
- CONIFEROUS TREE
- DECIDUOUS TREE
- 50 FOOT OFFSET TO VERNAL POOL
- EDGE OF RIVER
- 1' CONTOUR LINE
- 5' CONTOUR LINE
- APPROXIMATE PROPERTY LINE

Housatonic River

963 962 961 960 959 958 957

12" Maple

12" Maple

Ash Clump

Triple 10" Ash W/TBM 8068
Railroad Spike
Elev. = 959.78'

Triple 10" Ash

Maple Clump

Maple Clump

14" Cherry

Maple Clump

10" Maple

Maple Clump

5A-VP-12

Maple Clump

12" Maple

Twin 26" Cherry

10" Cherry

Twin 12" Cherry

14" Hemlock

Twin 10" Hemlock

12" Hemlock

16" Hemlock

10" Hemlock

12" Ash

15" Maple

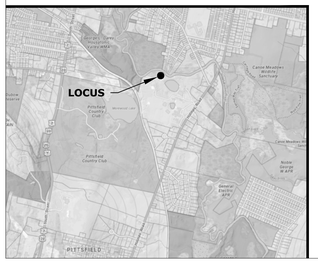
NAD 83

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

VICINITY MAP *SCALE : NTS*



GENERAL NOTES

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TOPOGRAPHIC SURVEY
Prepared For
ANCHOR QEA
5A-VP-12
HOUSATONIC RIVER
PITTSFIELD, MASSACHUSETTS

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1496 WEST HOUSATONIC STREET - PITTSFIELD, MA 01201
TEL: (413) 499-1560 FAX: (413) 499-3307 WWW.FORESIGHTLAND.COM

SCALE: 1"=10'	DWN. BY:DRB	CHK. BY: HMB
DATE: January 15, 2025	DWG. NO. S3208W04 VERNALS	
JOB NO. S3208	Layout Tab: VP-12	

GENERAL NOTES

1. Horizontal Datum is based upon North American Datum (NAD 83), Massachusetts State Plane Coordinate System

2. Vertical Datum is based upon North American Vertical Datum (NAVD88). Temporary Benchmarks were established on site, See plan for Benchmark information.

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6. Contractor shall immediately report any damage to existing pipes, utilities, or structures to the Owner and Engineer, and obtain directions as to repair, replacement or abandonment.

N/F
Judy North
Bk 3173 Pg 111

N/F
George & Roberta Beeker
Bk 1003 Pg 757JT

Maple Clump W/TBM 6556
Spike in Root
Elev. = 959.66'

5A-VP-16

5A-VP-15

Existing Foot Path

12" Ash
18" Oak
Triple 18" Maple
18" Maple
18" Maple
24" Apple
Twin 16" Maple
30" Apple
34" Apple
30" Apple
18" Apple
40" Apple
16" Oak
18" Maple
18" Maple
10" Ash
Maple Cluster
CLUSTER" Maple
Twin 8" Maple
8" Maple
15" Oak
20" Oak
Twin 10" Maple
20" Oak
18" Oak
10" Maple
10" Maple
Twin 10" Maple
Twin 10" Apple
8" Maple
Twin 12" Maple
10" Poplar
Triple 16" Maple
18" Maple
14" Oak
10" Ash
18" Ash
15" Ash
12" Ash
8" Maple
12" Maple
Twin 10" Maple
14" Maple
14" Cherry

15" Ash W/TBM 5708
Nail
Elev. = 960.53'

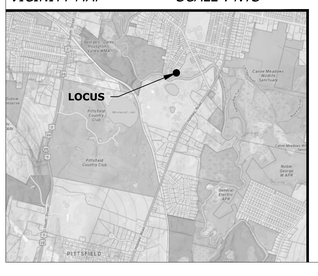
NAD 83

HOUSATONIC RIVER

LEGEND

- TEMPORARY BENCHMARK
- SEWER MANHOLE
- MONITOR WELL
- CONIFEROUS TREE
- DECIDUOUS TREE
- 50 FOOT OFFSET TO VERNAL POOL
- EDGE OF RIVER
- 1' CONTOUR LINE
- 5' CONTOUR LINE
- APPROXIMATE PROPERTY LINE

VICINITY MAP SCALE : NTS



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

TOPOGRAPHIC SURVEY
Prepared For
ANCHOR QEA
5A-VP-15 & 5A-VP-16
HOUSATONIC RIVER
PITTSFIELD, MASSACHUSETTS

FORESIGHT LAND SERVICES
ENGINEERING SURVEYING PLANNING
FORESIGHT LAND SERVICES, INC.
1496 WEST HOUSATONIC STREET - PITTSFIELD, MA 01201
TEL: (413) 499-1560 FAX: (413) 499-3307 WWW.FORESIGHTLAND.COM

SCALE: 1"=20'	DWN. BY:DRB	CHK. BY: HMB
DATE: January 9, 2025	DWG. NO. S3208W04 VERNALS	
JOB NO. S3208	Layout Tab: VP-15&16	

GENERAL NOTES

1. Horizontal Datum is based upon North American Datum (NAD 83), Massachusetts State Plane Coordinate System

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6. Contractor shall immediately report any damage to existing pipes, utilities, or structures to the Owner and Engineer, and obtain directions as to repair, replacement or abandonment.

N/F
Mark & Lisa Avnet
Book 5975 Page 213

N/F
Commonwealth of Massachusetts & Div of Fisheries and Wildlife
Book 1264 Page 600

N/F
Miss Halls School Inc
Book 414 Pg 591

N/F
Michael & Beth Cantor
Bk 5441 Pg 95

N/F
Miss Hall's School Inc.
Bk 1553 Pg 273

Holmes Road

Stone Retaining Wall

Seepage Area

Twin 12" Maple W/TBM 12474
PK Naill in Root
Elev. = 961.33'

Twin 12" Maple W/TBM 12916
Nail
Elev. = 960.55'

Twin 10" Ash
Twin 18" Ash
Twin 22" Maple
Maple Cluster
14" Maple
20" Maple
10" Maple
12" Birch
12" Maple
16" Maple
18" Oak
Hawthorn Cluster
12" Beech
38" Maple
Twin 14" Hemlock
21" Maple
14" Ash
Twin 12" Ash
13" Maple
12" Pine
12" Ash
16" Pine
15" Pine
18" Pine
16" Oak
Twin 12" Maple
11" Ash
22" Oak
14" Maple
28" Maple
17" Pine
10" Birch
5A-VP-21
14" Hemlock
12" Cherry
14" Pine
10" Cherry
Twin 12" Maple
Twin 20" Ash
24" Maple
10" Ash
20" Hemlock
18" Hemlock
Twin 36" Maple
36" Maple
14" Cherry
22" Maple
Triple 12" Maple
18" Ash
Hawthorn
40X2" Pine
Ash Cluster
14" Cherry
5A-VP-22
14X2" Maple

LEGEND

- TEMPORARY BENCHMARK
- CONIFEROUS TREE
- DECIDUOUS TREE
- 50 FOOT OFFSET TO VERNAL POOL
- EDGE OF RIVER
- 1' CONTOUR LINE
- 5' CONTOUR LINE
- APPROXIMATE PROPERTY LINE
- EDGE OF ASPHALT
- OHW OVER HEAD WIRES

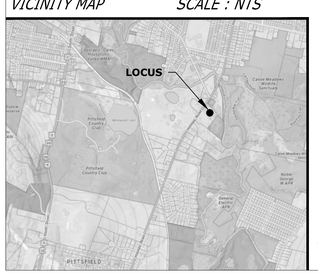
NAD 83

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

VICINITY MAP *SCALE : NTS*



TOPOGRAPHIC SURVEY
Prepared For
ANCHOR QEA
5A-VP-21
HOUSATONIC RIVER
PITTSFIELD, MASSACHUSETTS

FORESIGHT LAND SERVICES
ENGINEERING SURVEYING PLANNING
FORESIGHT LAND SERVICES, INC.
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TEL: (413) 499-1560 FAX: (413) 499-3307 WWW.FORESIGHTLAND.COM

SCALE: 1"=30'	DWN. BY:DRB	CHK. BY: HMB
DATE: March 5, 2025	DWG. NO. S3208W04 VERNALS	
JOB NO. S3208	Layout Tab: VP-21	

GENERAL NOTES

1. Horizontal Datum is based upon North American Datum (NAD 83), Massachusetts State Plane Coordinate System

2. Vertical Datum is based upon North American Vertical Datum (NAVD88). Temporary Benchmarks were established on site, See plan for Benchmark information.

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N/F
Commonwealth of
Massachusetts
Book 1053 Page 823

N/F
Michael & Beth Cantor
Bk 5441 Pg 95

5A-VP-22

14X2" Maple
14X2" Maple
10" Ash
Twin 12" Ash
Twin 10" Maple
16" Ash
14" Ash
Ash Cluster
14" Cherry
Ash Cluster
40X2" Pine
Twin 14" Maple W/TBM 9278
PK Nail in Root
Elev. = 959.11'
Twin 14" Maple
Twin 30" Maple
Maple Cluster
Maple Cluster W/TBM 8656
PK Nail in Root
Elev. = 958.09'
Maple Cluster
Maple Cluster
Maple Cluster
Twin 22" Maple
12" Ash
15" Maple
38" Cottonwood
30" Cottonwood W/TBM 8657
Nail
Elev. = 959.17'
30" Cottonwood
Twin 36" Ash
Maple Cluster
36" Ash
24" Maple
Twin 14" Ash
14" Maple
36" Ash
50" Cottonwood
Triple 13" Maple
24" Pine
12" Ash
10" Maple
12" Ash
Trail

N/F
Commonwealth of
Massachusetts
Book 1050 Page 173

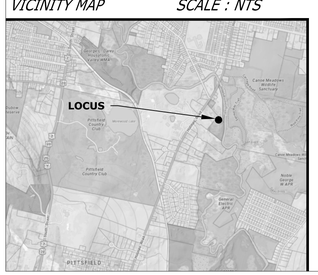
Housatonic River

NAD 83

LEGEND

- TEMPORARY BENCHMARK
- CONIFEROUS TREE
- DECIDUOUS TREE
- 50 FOOT OFFSET TO VERNAL POOL
- EDGE OF RIVER
- 1' CONTOUR LINE
- 5' CONTOUR LINE
- APPROXIMATE PROPERTY LINE

VICINITY MAP *SCALE : NTS*



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

TOPOGRAPHIC SURVEY
Prepared For
ANCHOR QEA
5A-VP-22
HOUSATONIC RIVER
PITTSFIELD, MASSACHUSETTS

FORESIGHT LAND SERVICES
ENGINEERING
SURVEYING
PLANNING
FORESIGHT LAND SERVICES, INC.
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SCALE: 1"=20'	DWN. BY:DRB	CHK. BY: HMB
DATE: January 22, 2025	DWG. NO. S3208W04 VERNALS	
JOB NO. S3208	Layout Tab: VP-22	

N/F
COMMONWEALTH OF
MASSACHUSETTS
BOOK 1053, PAGE 823

N/F
Thomas Gelb &
Kelly Maginnis
Bk 6836 Pg 169

5A-VP-26

Twin 28" Maple
Twin 30" Maple
Maple Cluster
14" Maple
16" Oak
12" Cherry
Triple 12" Maple
10" Maple
12" Cherry
10" Ash
10" Maple
Twin 16" Maple
10" Apple
10" Apple Nail
Elev. = 960.76'
W/TBM 13781
Twin 14" Maple
Twin 14" Maple
Twin 14" Maple

960
959
958
961
NAD 83

N/F
Thomas Gelb &
Kelly Maginnis
Bk 6836 Pg 169

GENERAL NOTES

1. Horizontal Datum is based upon North American Datum (NAD 83), Massachusetts State Plane Coordinate System

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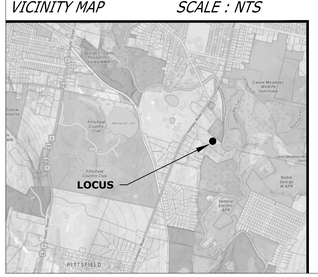
VICINITY MAP *SCALE : NTS*



GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

LEGEND

- TEMPORARY BENCHMARK
- CONIFEROUS TREE
- DECIDUOUS TREE
- 50 FOOT OFFSET TO VERNAL POOL
- EDGE OF RIVER
- 1' CONTOUR LINE
- 5' CONTOUR LINE
- APPROXIMATE PROPERTY LINE

TOPOGRAPHIC SURVEY
Prepared For
ANCHOR QEA
5A-VP-26
HOUSATONIC RIVER
PITTSFIELD, MASSACHUSETTS

FORESIGHT LAND SERVICES
ENGINEERING SURVEYING PLANNING
FORESIGHT LAND SERVICES, INC.
1496 WEST HOUSATONIC STREET - PITTSFIELD, MA 01201
TEL: (413) 499-1560 FAX: (413) 499-3307 WWW.FORESIGHTLAND.COM

SCALE: 1"=10'	DWN. BY:DRB	CHK. BY: HMB
DATE: March 5, 2025	DWG. NO. S3208W04 VERNALS	
JOB NO. S3208	Layout Tab: VP-26	

N/F
Thomas Gelb &
Kelly Maginnis
Bk 6836 Pg 169

5A-VP-27

Housatonic River

10" Ash
22" Maple
Ash Cluster
14" Maple
14" Maple
10" Cherry
12" Ash
12" Ash
14" Ash
Twin 14" Ash
12" Cherry
10" Ash
Twin 18" Maple

14" Maple W/TBM 10341
Nail
Elev. = 962.17'

962
961
960
959
958

NAD 83

N/F
Thomas Gelb &
Kelly Maginnis
Bk 6836 Pg 169

LEGEND

- TEMPORARY BENCHMARK
- CONIFEROUS TREE
- DECIDUOUS TREE
- 50 FOOT OFFSET TO VERNAL POOL
- EDGE OF RIVER
- 1' CONTOUR LINE
- 5' CONTOUR LINE
- APPROXIMATE PROPERTY LINE

GENERAL NOTES

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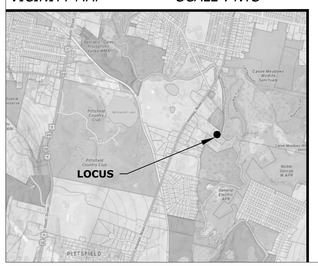
VICINITY MAP *SCALE : NTS*



GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

TOPOGRAPHIC SURVEY
Prepared For
ANCHOR QEA
5A-VP-27
HOUSATONIC RIVER
PITTSFIELD, MASSACHUSETTS

FORESIGHT LAND SERVICES
ENGINEERING SURVEYING PLANNING
FORESIGHT LAND SERVICES, INC.
1496 WEST HOUSATONIC STREET · PITTSFIELD, MA 01201
TEL: (413) 499-1560 FAX: (413) 499-3307 WWW.FORESIGHTLAND.COM

SCALE: 1"=10'	DWN. BY:DRB	CHK. BY: HMB
DATE: January 30, 2025	DWG. NO. S3208W04 VERNALS	
JOB NO. S3208	Layout Tab: VP-27	

N/F
LAWRENCE A. GATTASSO
AND SANDRA S. GATTASSO
TRUSTEES OF THE GATTASSO FAMILY TRUST
BOOK 6660, PAGE 105

N/F
COMMONWEALTH OF MASSACHUSETTS
Book 1031 Page 607

HOUSATONIC RIVER

N/F
TERRENCE M. HANLON
AND MARY JANE HANLON
BOOK 1624, PAGE 967

LEGEND

- TEMPORARY BENCHMARK
- CONIFEROUS TREE
- DECIDUOUS TREE

- 50 FOOT OFFSET TO VERNAL POOL
- EDGE OF RIVER
- 1' CONTOUR LINE
- 5' CONTOUR LINE
- APPROXIMATE PROPERTY LINE

5A-VP-52

Maple Cluster W/TBM 9845
Nail
Elev. = 957.09'

Maple Cluster

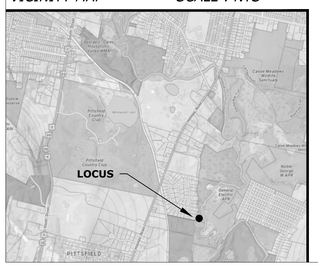
Ash Cluster

956 955 955 955 955 955 956 957 956 955 954 955 956 955 955 955 954

N/F
COMMONWEALTH OF MASSACHUSETTS
Book 985 Page 259

NAD 83

VICINITY MAP *SCALE : NTS*



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GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

TOPOGRAPHIC SURVEY
Prepared For
ANCHOR QEA
5A-VP-52
HOUSATONIC RIVER
PITTSFIELD, MASSACHUSETTS

FORESIGHT LAND SERVICES
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1496 WEST HOUSATONIC STREET - PITTSFIELD, MA 01201
TEL: (413) 499-1560 FAX: (413) 499-3307 WWW.FORESIGHTLAND.COM

SCALE: 1"=10'	DWN. BY:DRB	CHK. BY: HMB
DATE: January 24, 2025	DWG. NO. S3208W04 VERNALS	
JOB NO. S3208	Layout Tab: VP-52	

N/F
Commonwealth of Massachusetts & Div
of Fisheries and Wildlife
Book 985 Page 259

N/F
Commonwealth Of
Massachusetts
Book 985 Page 259

NAD 83

GENERAL NOTES

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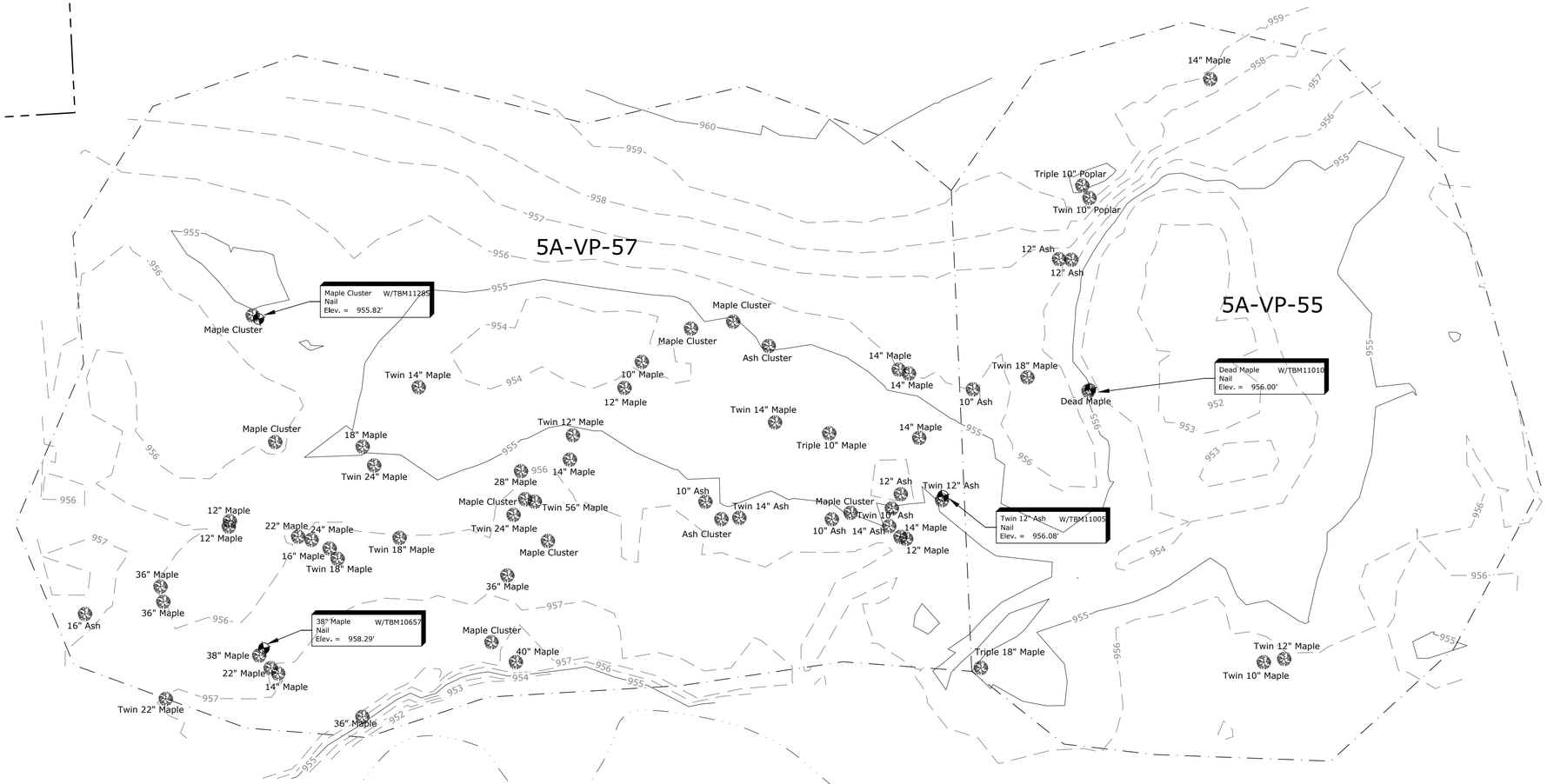
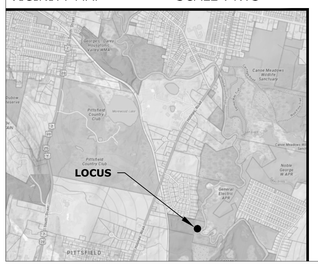


VICINITY MAP SCALE : NTS



LEGEND

- TEMPORARY BENCHMARK
- CONIFEROUS TREE
- DECIDUOUS TREE
- 50 FOOT OFFSET TO VERNAL POOL
- EDGE OF RIVER
- 1' CONTOUR LINE
- 5' CONTOUR LINE
- APPROXIMATE PROPERTY LINE

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

TOPOGRAPHIC SURVEY
Prepared For
ANCHOR QEA
5A-VP-55 & 5A-VP-57
HOUSATONIC RIVER
PITTSFIELD, MASSACHUSETTS

FORESIGHT LAND SERVICES
ENGINEERING SURVEYING PLANNING
FORESIGHT LAND SERVICES, INC.
1496 WEST HOUSATONIC STREET · PITTSFIELD, MA 01201
TEL: (413) 499-1560 FAX: (413) 499-3307 WWW.FORESIGHTLAND.COM

SCALE: 1"=20'	DWN. BY:DRB	CHK. BY: HMB
DATE: February 4, 2025	DWG. NO. S3208W04 VERNALS	
JOB NO. S3208	Layout Tab: VP-55&57	

GENERAL NOTES

1. Horizontal Datum is based upon North American Datum (NAD 83), Massachusetts State Plane Coordinate System

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NAD 83

N/F
Commonwealth of
Massachusetts & Div of
Fisheries and Wildlife
Book 985 Page 259

N/F
City of Pittsfield
Parks and Playgrounds

HOUSATONIC RIVER

5A-VP-61

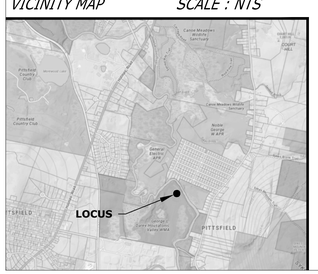
14" Maple W/TBM 13835
Spike
Elev. = 957.66'

Maple Cluster W/TBM 13834
PK Nail in Root
Elev. = 957.07'

16" Maple, 14" Maple, 16" Maple, 16" Ash, 17" Maple, 14" Maple, 18" Maple, 16" Maple, 11" Maple, 11" Maple, 24X2" Ash, Twin 10" Maple, 14" Maple, 10" Maple, 13" Maple, 20" Ash, 14" Ash, 12" Maple, 29" Pine, Ash Cluster, 19" Maple, 10" Maple, Twin 16" Ash, 20" Maple, 17" Ash, 20" Ash, Twin 12" Maple, Ash Cluster, Maple Cluster, 22" Ash, 11" Maple, 12" Maple, 14" Maple, 20" Maple, 17" Maple, 14" Maple, 15" Cherry, 14" Ash, 11" Maple, 14" Oak, 12" Oak, 17" Cherry, 10" Maple, 14" Maple, 17" Maple, Twin 12" Maple, Twin 10" Maple, Twin 18" Ash, 16" Maple, Twin 11" Maple, Triple 13" Maple, 30" Maple, 22" Ash, 13" Ash, Twin 14" Ash, Twin 16" Ash, 13" Maple, Twin 16" Ash, Twin 13" Maple, 17" Maple, 20" Ash, 14" Cherry, Ash Cluster, 14" Cherry, 16" Maple, 13" Maple, 16" Ash, 24" Maple, 13" Maple, Ash Cluster, Twin 13" Maple

958, 957, 956, 955, 954, 959

VICINITY MAP SCALE : NTS



LEGEND

- TEMPORARY BENCHMARK
- CONIFEROUS TREE
- DECIDUOUS TREE
- 50 FOOT OFFSET TO VERNAL POOL
- EDGE OF RIVER
- 1' CONTOUR LINE
- 5' CONTOUR LINE
- APPROXIMATE PROPERTY LINE

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

TOPOGRAPHIC SURVEY
Prepared For
ANCHOR QEA
5A-VP-61
HOUSATONIC RIVER
PITTSFIELD, MASSACHUSETTS

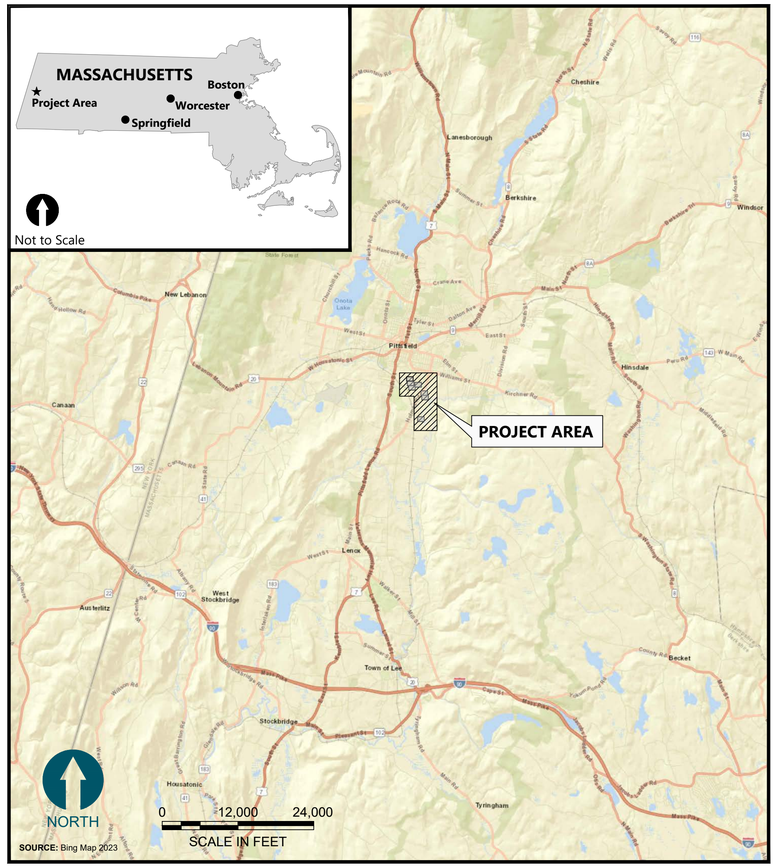
FORESIGHT LAND SERVICES
ENGINEERING SURVEYING PLANNING
FORESIGHT LAND SERVICES, INC.
1496 WEST HOUSATONIC STREET - PITTSFIELD, MA 01201
TEL: (413) 499-1560 FAX: (413) 499-3307 WWW.FORESIGHTLAND.COM

SCALE: 1"=20'	DWN. BY:DRB	CHK. BY: HMB
DATE: March 27, 2025	DWG. NO. S3208W04 VERNALS	
JOB NO. S3208	Layout Tab: VP-61	

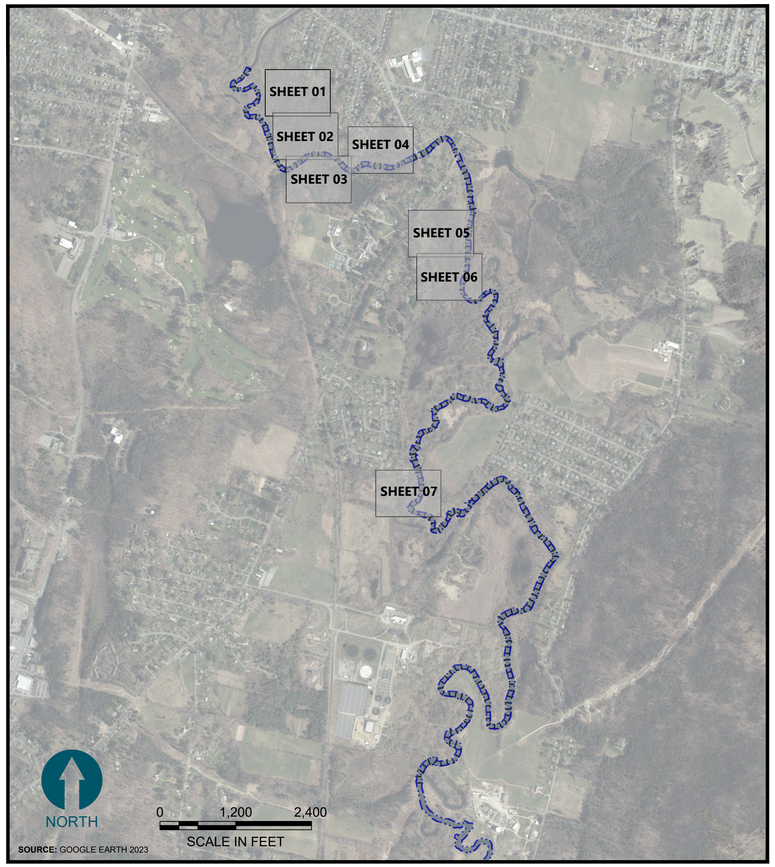
Appendix E
Design Drawings

HOUSATONIC RIVER - VERNAL POOL PILOT STUDY
GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

VICINITY MAP



LOCATION MAP



DRAWING INDEX

SHEET NO.	SHEET ID	SHEET TITLE
T-SERIES: TITLE		
1.	T01	TITLE SHEET
G-SERIES: GENERAL		
2.	G01	GENERAL NOTES AND LEGEND
3.	G02	OVERALL SITE PLAN
C-SERIES: CONSTRUCTION PLAN VIEW		
4.	C01	CONSTRUCTION PLAN 5A-VP-3, 5A-VP-4, 5A-VP-5
5.	C02	CONSTRUCTION PLAN 5A-VP-7, 5A-VP-9, 5A-VP-10
6.	C03	CONSTRUCTION PLAN 5A-VP-12
7.	C04	CONSTRUCTION PLAN 5A-VP-15, 5A-VP-16
8.	C05	CONSTRUCTION PLAN 5A-VP-21, 5A-VP-22
9.	C06	CONSTRUCTION PLAN 5A-VP-26, 5A-VP-27
10.	C07	CONSTRUCTION PLAN 5A-VP-52, 5A-VP-55, VP-57
11.	C11	OVERALL ACCESS SITE PLAN
12.	C12	TEMPORARY ACCESS ROADS (NORTH)
13.	C13	TEMPORARY ACCESS ROADS (SOUTH)
14.	C14	OFFSITE TRANSPORTATION ROUTES
15.	C50	VERNAL POOL CONTROL POINTS
16.	C80	MISCELLANEOUS CONSTRUCTION DETAILS
AM-SERIES: AIR MONITORING		
17.	AM01	AIR MONITORING LOCATIONS (NORTH AREA)
18.	AM02	AIR MONITORING LOCATIONS (CENTRAL AREA)
19.	AM03	AIR MONITORING LOCATIONS (SOUTH AREA)
R-SERIES: PLANTING		
20.	R1	EXISTING CONDITIONS & PLANTING PLAN 5A-VP-4
21.	R2	EXISTING CONDITIONS & PLANTING PLAN 5A-VP-7
22.	R3	EXISTING CONDITIONS & PLANTING PLAN 5A-VP-16
23.	R4	EXISTING CONDITIONS & PLANTING PLAN 5A-VP-52
24.	R5	EXISTING CONDITIONS & PLANTING PLAN 5A-VP-57
25.	R6	PLANTING AND CONSTRUCTION NOTES

PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE"

ONE INCH AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

06/30/2025 DRAFT-NOT FOR CONSTRUCTION

ANCHOR QEA

REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: E. GLAZA
DRAWN BY: C. YARD/P. SCIABA
CHECKED BY: C. GUEST
APPROVED BY: M. WERTH
SCALE: AS NOTED
DATE: JUNE 2025

HOUSATONIC RIVER - VERNAL POOL PILOT STUDY
GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

TITLE SHEET

T01

SHEET # 1 OF 25

k:\Projects\0469-general electric\housatonic - vernal pools - reach 5a\construction plans\0469-VP-5a-PL-Title Sheet.dwg T01
Jun 30, 2025 10:32am psciaba

GENERAL NOTES

1. HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (NAD83) MASSACHUSETTS STATE PLANE, MAINLAND ZONE, U.S. SURVEY FEET; VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988, FEET.
2. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS WITHIN THE LIMITS OF WORK AND DETERMINE THE APPROPRIATE QUANTITIES AND MATERIALS TO COMPLETE THE WORK WITHIN ACCORDANCE OF THE DRAWINGS AND SPECIFICATIONS.
3. LOCATIONS OF UTILITIES ARE APPROXIMATE AND NOT ALL UTILITIES MAY BE SHOWN. CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS OF ALL UTILITIES. CONTRACTOR SHALL VERIFY THE PRESENCE AND LOCATION OF ALL UNDERGROUND, UNDERWATER, AND OVERHEAD UTILITIES AND SHALL PROTECT EXISTING UTILITIES IN THE WORK AREA.
4. ALL BASEMAP INFORMATION CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THE TIME OF THE SURVEYS. REUSE OF THIS INFORMATION BY CONTRACTOR OR OTHERS BEYOND THE SPECIFIC SCOPES OF WORK FOR WHICH CONTRACTOR WAS RETAINED SHALL BE AT THE SOLE RISK OF CONTRACTOR.
5. DRAWINGS INCLUDE COLOR AND SHOULD BE PRINTED ACCORDINGLY. SOME DESIGN FEATURES MAY NOT BE VISIBLE OR LEGIBLE IN GRAYSCALE OR BLACK AND WHITE IF REPRODUCED INCORRECTLY.

SOURCES

1. TOPOGRAPHIC/BATHYMETRIC SURVEY BY SPICER GROUP INC., (APRIL 6, 2023).
2. VERNAL POOL TOPOGRAPHIC SURVEYS PERFORMED BY FORESIGHT LAND SERVICES BETWEEN APRIL AND DECEMBER 2024.
3. RIVER CENTERLINE, ROADWAYS, TOWNSHIP PARCELS, PROPERTY BOUNDARIES ACQUIRED FROM MASS GIS (2023).
4. AERIAL IMAGERY FROM MASS GIS (20-23).

Table 1
Treatment Areas and Amendment Application Approaches for Treatment-Based Vernal Pools

Vernal Pool	Area (SF)	Amendment Application Approach
5A-VP-9	26,190	PAC/sand with mixing, method to be determined by Project Manager and Contractor based on the results of mixing in vernal pool 5A-VP-15
5A-VP-12	11,890	SediMite surface application
5A-VP-15 (West)	8,280	PAC/sand with till mixing
5A-VP-15 (East)	7,940	PAC/sand with tine mixing
5A-VP-22 (North)	17,700	PAC/sand surface application
5A-VP-22 (South)	17,950	SediMite surface application
5A-VP-27	3,650	PAC/sand surface application

Table 2
Removal Areas and Depths for Removal-Based Vernal Pools

Vernal Pool ID	Total Removal Area (SF)	TSCA Removal Area (SF)	Non-TSCA Removal Area (SF)	Minimum Required Removal Depth (FT)
5A-VP-4	6,330	0	6,330	1
5A-VP-7	12,570	10,550	2,020	1
5A-VP-16	810	0	810	1
5A-VP-52	2,160	2,160	0	1
5A-VP-57	14,370	7,520	6,840	1

LEGEND:

- 950 — EXISTING CONTOURS (FEET NAVD88) (1-FOOT INTERVAL)
- TAX PARCEL BOUNDARY MASSGIS
- TOWNSHIP BOUNDARY
- EASEMENT (APPROXIMATE)
- PUBLIC ROADWAY
- EXISTING FOOT PATH
- VERNAL POOL BOUNDARY
- EXTENT OF 2024 FORESIGHT VERNAL POOL TOPOGRAPHIC AND TREE SURVEY
- LOCATION OF TREES GREATER THAN 8" TO 10" BASED ON PRELIMINARY TREE SURVEY. CONTRACTOR TO IDENTIFY AND PRESERVE TO EXTENT PRACTICAL TREES WITH A DIAMETER GREATER THAN 6"
- RIVER CENTERLINE
- 3+00 — 3+00 RIVER STATIONING

VERNAL POOLS

- NOT PART OF PILOT TEST
- EXCAVATION/RESTORATION
- AMENDMENT
- CONTROL
- XX ● CONTROL POINT

TSCA AREAS

NON-TSCA AREAS

- EXISTING UNIMPROVED PRIMARY ACCESS ROUTE, TO BE IMPROVED BY CONTRACTOR WHERE NECESSARY, LOCATION APPROXIMATE
- PLANNED ROUTE FOR SECONDARY CONSTRUCTION MAT ACCESS ROADS TO BE DEVELOPED BY CONTRACTOR, LOCATION APPROXIMATE
- TIRE CLEANING STATION, WITH UPGRADED TEMPORARY ACCESS ROAD FROM CLEANING STATION TO EGRESS ONTO PUBLIC ROAD, LOCATION APPROXIMATE.
- PRELIMINARY AREA IDENTIFIED FOR TEMPORARY STAGING AREA, TO BE CONFIRMED BY CONTRACTOR UNDER OVERSIGHT BY THE PROJECT WETLAND SCIENTIST
- SILT FENCE
- ROAD USE RESTRICTED
- TRUCK ROUTE FOR OFFSITE DISPOSAL
- GENERAL TRAVEL DIRECTION TO DISPOSAL
- TRUCK ROUTE TO BUILDING 64G WATER TREATMENT FACILITY

PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE"

ONE INCH AT FULL SIZE. IF NOT ONE INCH SCALE ACCORDINGLY

06/30/2025 DRAFT-NOT FOR CONSTRUCTION

ANCHOR QEA

REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: E. GLAZA
DRAWN BY: C. YARD/P. SCIABA
CHECKED BY: C. GUEST
APPROVED BY: M. WERTH
SCALE: AS NOTED
DATE: JUNE 2025

HOUSATONIC RIVER - VERNAL POOL PILOT STUDY
GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

GENERAL NOTES AND LEGEND

G01

SHEET # 2 OF 25

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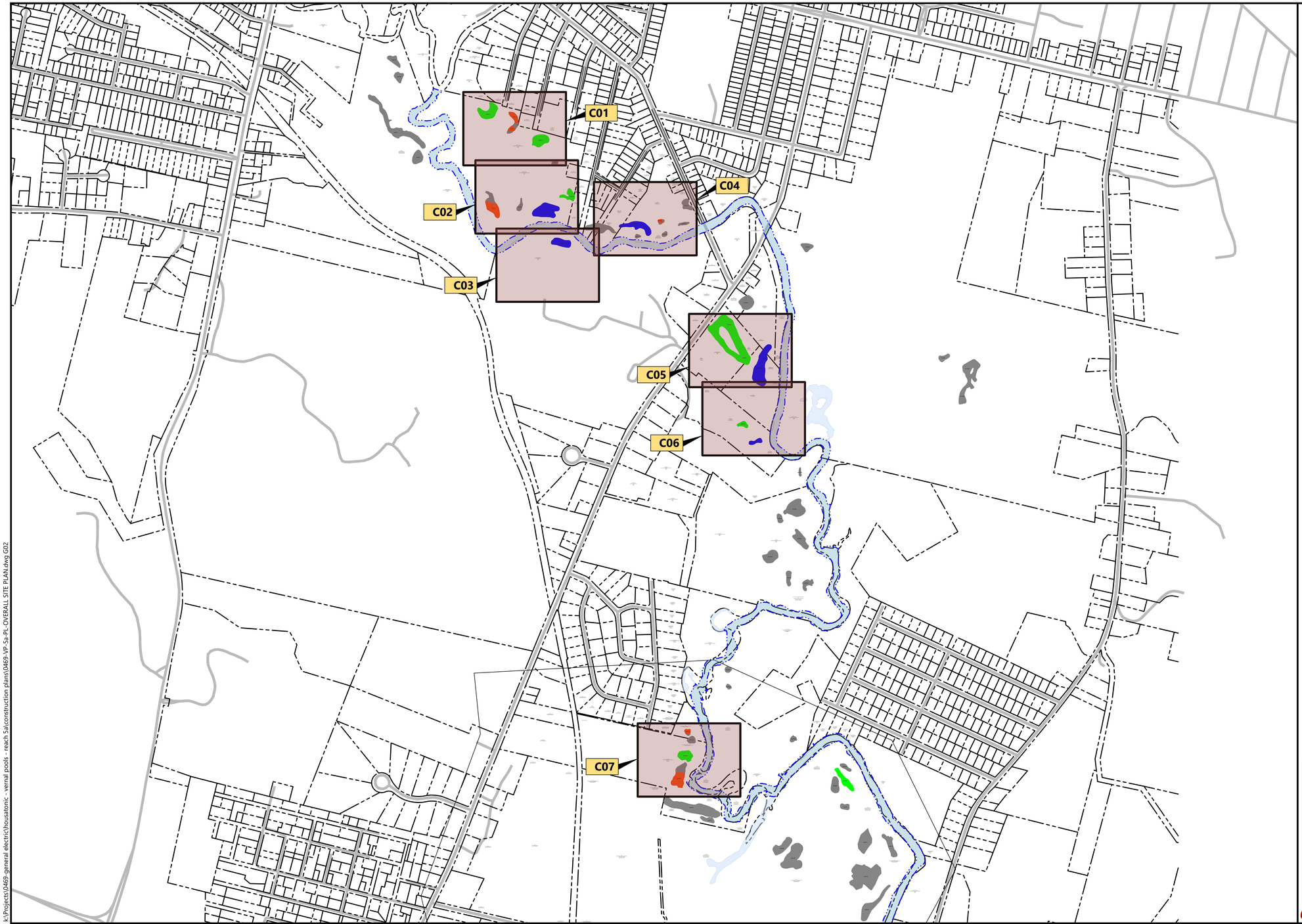

LEGEND:

- C01 — SHEET NAME AND DESIGNATION
- PROPERTY BOUNDARY MASSGIS
- TOWNSHIP BOUNDARY
- ROADWAY
- RIVER

VERNAL POOLS (AECOM 2020, GE 2021)

- OTHER NON-PILOT STUDY POOLS

VERNAL POOLS SELECTED FOR PILOT STUDY

- EXCAVATION/RESTORATION
- AMENDMENT
- CONTROL

HORIZONTAL DATUM: MASSACHUSETTS STATE PLANE MAINLAND, (NAD83), U.S. FEET.

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

NORTH

0 500 1000

SCALE IN FEET

06/30/2025 DRAFT-NOT FOR CONSTRUCTION

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ANCHOR QEA

REVISIONS

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SCALE: AS NOTED
DATE: JUNE 2025

HOUSATONIC RIVER - VERNAL POOL PILOT STUDY
GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

OVERALL SITE PLAN

G02

SHEET # 3 OF 25

k:\Projects\0469-general electric\housatonic - vernal pools - reach 5a\construction plans\0469-VP-5a-PL-OVERALL SITE PLAN.dwg G02

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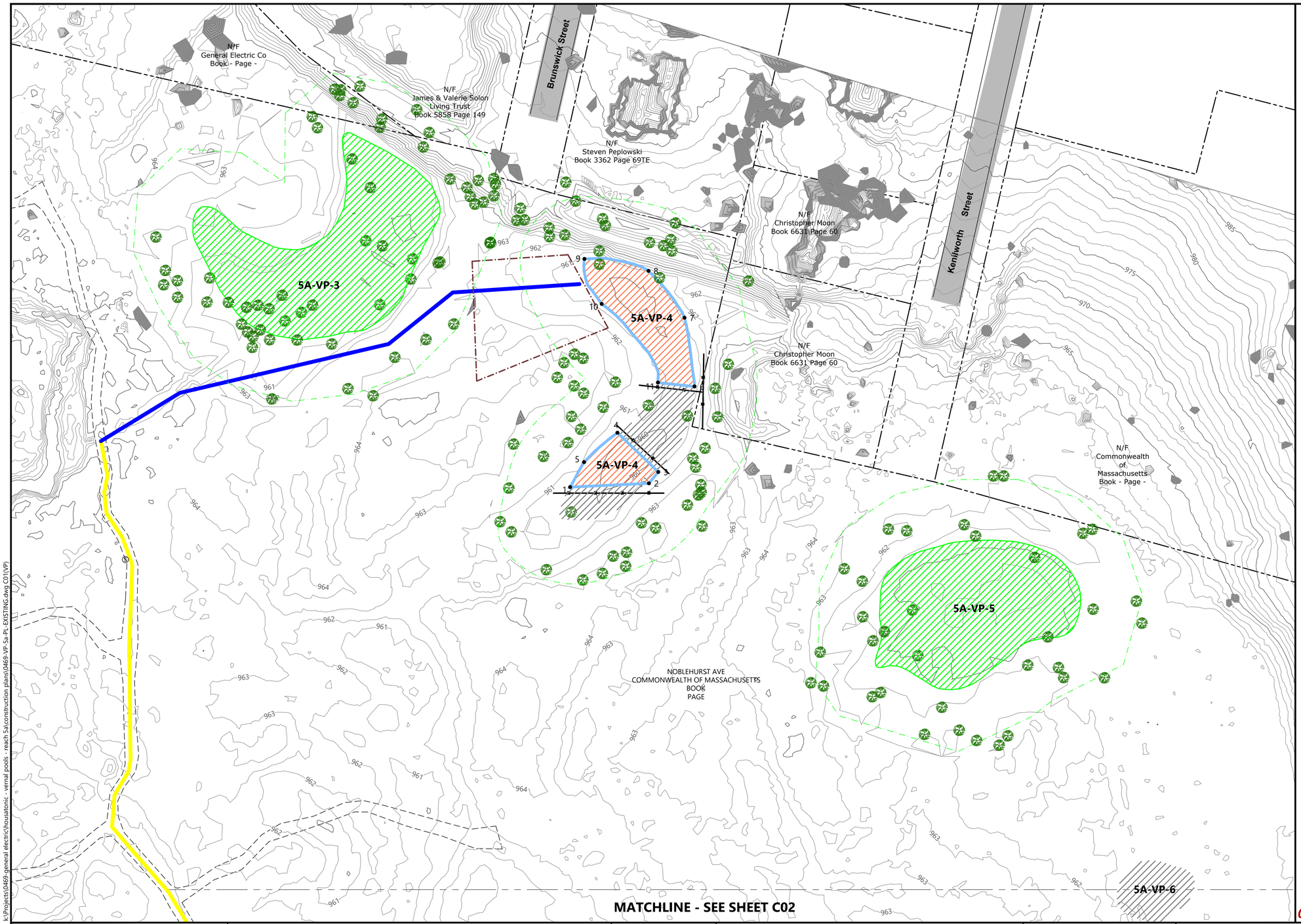

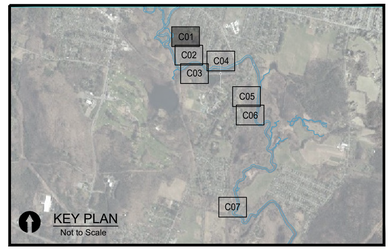

LEGEND:

- 950 — EXISTING CONTOURS (FEET NAVD88) (1-FOOT INTERVAL)
- TAX PARCEL BOUNDARY MASSGIS
- TOWNSHIP BOUNDARY
- EASEMENT (APPROXIMATE)
- PUBLIC ROADWAY
- EXISTING FOOT PATH
- EXTENT OF 2024 FORESIGHT VERNAL POOL TOPOGRAPHIC AND TREE SURVEY
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- RIVER CENTERLINE
- 3+00 — 3+00 RIVER STATIONING

VERNAL POOLS

- NOT PART OF PILOT TEST
- EXCAVATION/RESTORATION
- AMENDMENT
- CONTROL
- XX ● CONTROL POINT

TSCA AREAS

NON-TSCA AREAS

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- SILT FENCE

HORIZONTAL DATUM: MASSACHUSETTS STATE PLANE MAINLAND, (NAD83), U.S. FEET
VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

NOTES:
1. SEE SHEET G01 FOR GENERAL NOTES AND LEGEND.
2. LOCATIONS ARE APPROXIMATE FOR ALL UTILITIES.

NORTH
0 40 80
SCALE IN FEET

PLAN INTENDED TO BE VIEWED IN COLOR, ADJACENT BLOCK IS "BLUE"

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06/30/2025 DRAFT-NOT FOR CONSTRUCTION

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Jun 30, 2025 10:34am psciaba

ANCHOR QEA

REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: E. GLAZA
DRAWN BY: C. YARD/P. SCIABA
CHECKED BY: C. GUEST
APPROVED BY: M. WERTH
SCALE: AS NOTED
DATE: JUNE 2025

HOUSATONIC RIVER - VERNAL POOL PILOT STUDY
GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

CONSTRUCTION PLAN VIEW
5A-VP-3, 5A-VP-4, 5A-VP-5

C01

SHEET # 4 OF 25

MATCHLINE - SEE SHEET C01

MATCHLINE - SEE SHEET C03

5A-VP-6

5A-VP-7

5A-VP-8

5A-VP-9

5A-VP-10

NOBLEHURST AVE
COMMONWEALTH OF MASSACHUSETTS
BOOK
PAGE

N/F
Jacqueline Harden
Book 7515 Page 73

N/F
City of Pittsfield
Book - Page -

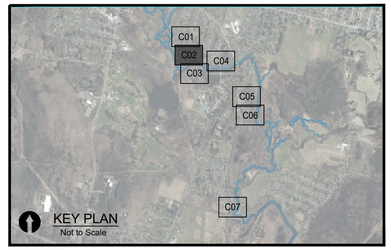
N/F
City of Pittsfield
Book - Page -

Existing Footpath

Existing Footpath

VP-9 TREATMENT
WITH SAND/PAC AND
MIXING METHOD TBD

HOUSATONIC RIVER



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CHECKED BY: C. GUEST
APPROVED BY: M. WERTH
SCALE: AS NOTED
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HOUSATONIC RIVER - VERNAL POOL PILOT STUDY
GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

CONSTRUCTION PLAN VIEW
5A-VP-7, 5A-VP-9, 5A-VP-10

C02

SHEET # 5 OF 25

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Jun 30, 2025 10:35am psciaba

MATCHLINE - SEE SHEET C02

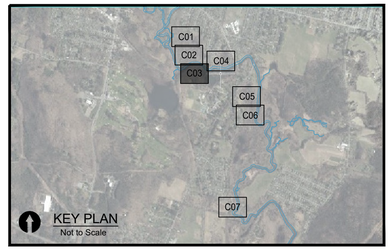
MATCHLINE - SEE SHEET C04

HOUSATONIC RIVER

VP-12 TREATMENT WITH SEDIMENT

5A-VP-12

498 HOLMES RD
MISS HALLS SCHOOL INC
BOOK
PAGE



LEGEND:

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NOTES:
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NORTH
0 40 80
SCALE IN FEET

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06/30/2025 DRAFT-NOT FOR CONSTRUCTION

k:\Projects\0469-general electric\housatonic - vernal pools - reach 5a\construction plans\0469-VP-5a-PL-EXISTING.dwg C03 (VP)
Jun 30, 2025 10:33am psciaba

ANCHOR QEA

REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

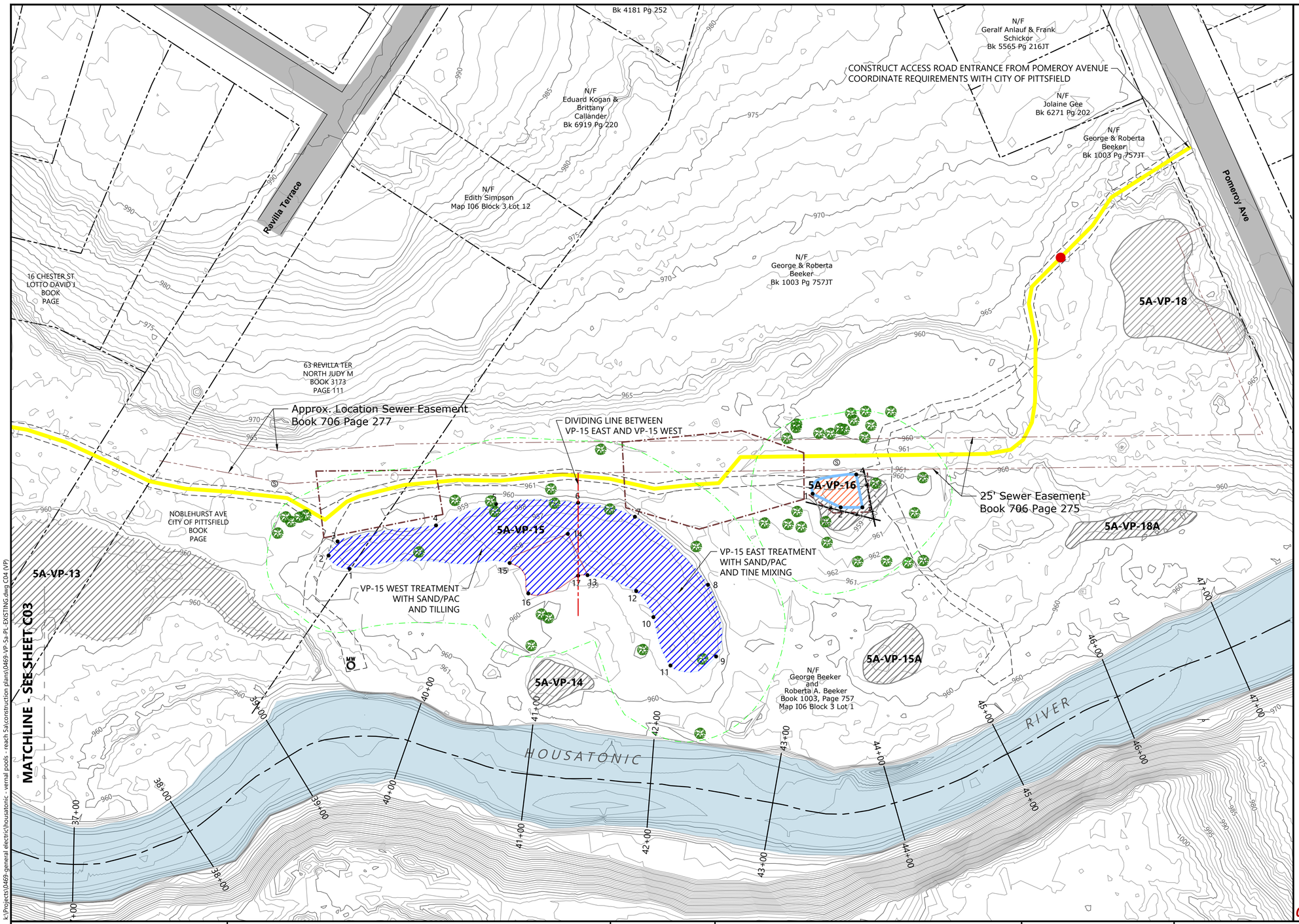
DESIGNED BY: E. GLAZA
DRAWN BY: C. YARD/P. SCIABA
CHECKED BY: C. GUEST
APPROVED BY: M. WERTH
SCALE: AS NOTED
DATE: JUNE 2025

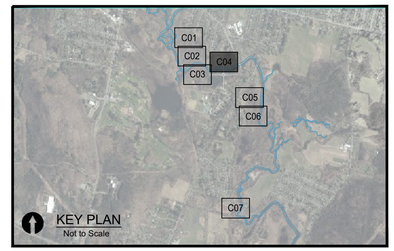
HOUSATONIC RIVER - VERNAL POOL PILOT STUDY
GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

CONSTRUCTION PLAN VIEW
5A-VP-12

C03

SHEET # 6 OF 25





LEGEND:

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- LOCATION OF TREES GREATER THAN 8" TO 10" BASED ON PRELIMINARY TREE SURVEY. CONTRACTOR TO IDENTIFY AND PRESERVE TO EXTENT PRACTICABLE TREES WITH A DIAMETER GREATER THAN 6"
- RIVER CENTERLINE
- RIVER STATIONING

VERNAL POOLS

- NOT PART OF PILOT TEST
- EXCAVATION/RESTORATION
- AMENDMENT
- CONTROL
- CONTROL POINT

TSCA AREAS

NON-TSCA AREAS

- EXISTING UNIMPROVED PRIMARY ACCESS ROUTE, TO BE IMPROVED BY CONTRACTOR WHERE NECESSARY, LOCATION APPROXIMATE
- PLANNED ROUTE FOR SECONDARY CONSTRUCTION MAT ACCESS ROADS TO BE DEVELOPED BY CONTRACTOR, LOCATION APPROXIMATE
- TIRE CLEANING STATION, WITH UPGRADED TEMPORARY ACCESS ROAD FROM CLEANING STATION TO EGRESS ONTO PUBLIC ROAD, LOCATION APPROXIMATE
- PRELIMINARY AREA IDENTIFIED FOR TEMPORARY STAGING AREA, TO BE CONFIRMED BY CONTRACTOR UNDER OVERSIGHT BY THE PROJECT WETLAND SCIENTIST
- SILT FENCE

HORIZONTAL DATUM: MASSACHUSETTS STATE PLANE MAINLAND, (NAD83), U.S. FEET
VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

NOTES:
1. SEE SHEET G01 FOR GENERAL NOTES AND LEGEND.
2. LOCATIONS ARE APPROXIMATE FOR ALL UTILITIES.

NORTH
0 40 80
SCALE IN FEET

PLAN INTENDED TO BE VIEWED IN COLOR ADJACENT BLOCK IS "BLUE"

ONE INCH AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

06/30/2025 DRAFT-NOT FOR CONSTRUCTION

k:\Projects\0469-general electric\housatonic - vernal pools - reach 5a\construction plans\0469-VP-5a-PL-EXISTING.dwg C04 (VP)
Jun 30, 2025 10:36am psciaba

ANCHOR QEA

REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

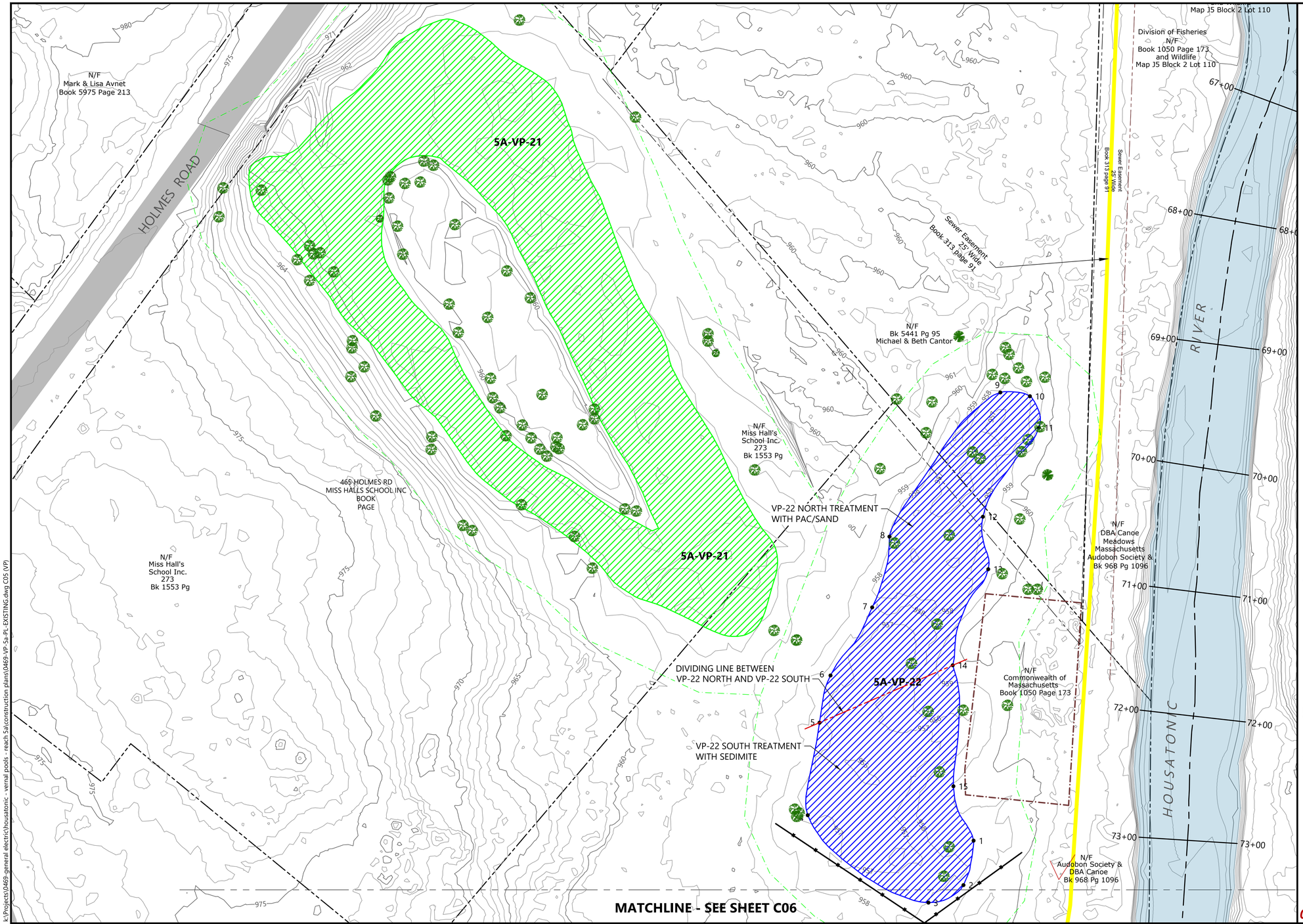
DESIGNED BY: E. GLAZA
DRAWN BY: C. YARD/P. SCIABA
CHECKED BY: C. GUEST
APPROVED BY: M. WERTH
SCALE: AS NOTED
DATE: JUNE 2025

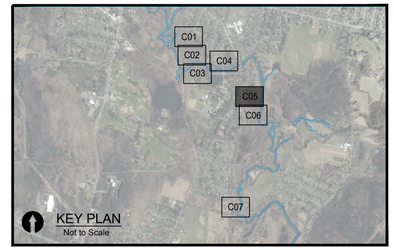
HOUSATONIC RIVER - VERNAL POOL PILOT STUDY
GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

CONSTRUCTION PLAN VIEW
5A-VP-15, 5A-VP-16

C04

SHEET # 7 OF 25





LEGEND:

- EXISTING CONTOURS (FEET NAVD88) (1-FOOT INTERVAL)
- TAX PARCEL BOUNDARY MASSGIS
- TOWNSHIP BOUNDARY
- EASEMENT (APPROXIMATE)
- PUBLIC ROADWAY
- EXISTING FOOT PATH
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- RIVER CENTERLINE
- RIVER STATIONING

VERNAL POOLS

- NOT PART OF PILOT TEST
- EXCAVATION/RESTORATION
- AMENDMENT
- CONTROL
- CONTROL POINT

TSCA AREAS

NON-TSCA AREAS

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- SILT FENCE

HORIZONTAL DATUM: MASSACHUSETTS STATE PLANE MAINLAND, (NAD83), U.S. FEET
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NOTES:
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NORTH
0 40 80
SCALE IN FEET

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06/30/2025 DRAFT-NOT FOR CONSTRUCTION

k:\Projects\0469-general electric\housatonic - vernal pools - reach 5a\construction plans\0469-VP-5a-PL-EXISTING.dwg C05 (VP)
Jun 30, 2025 10:32am psciaba

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REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

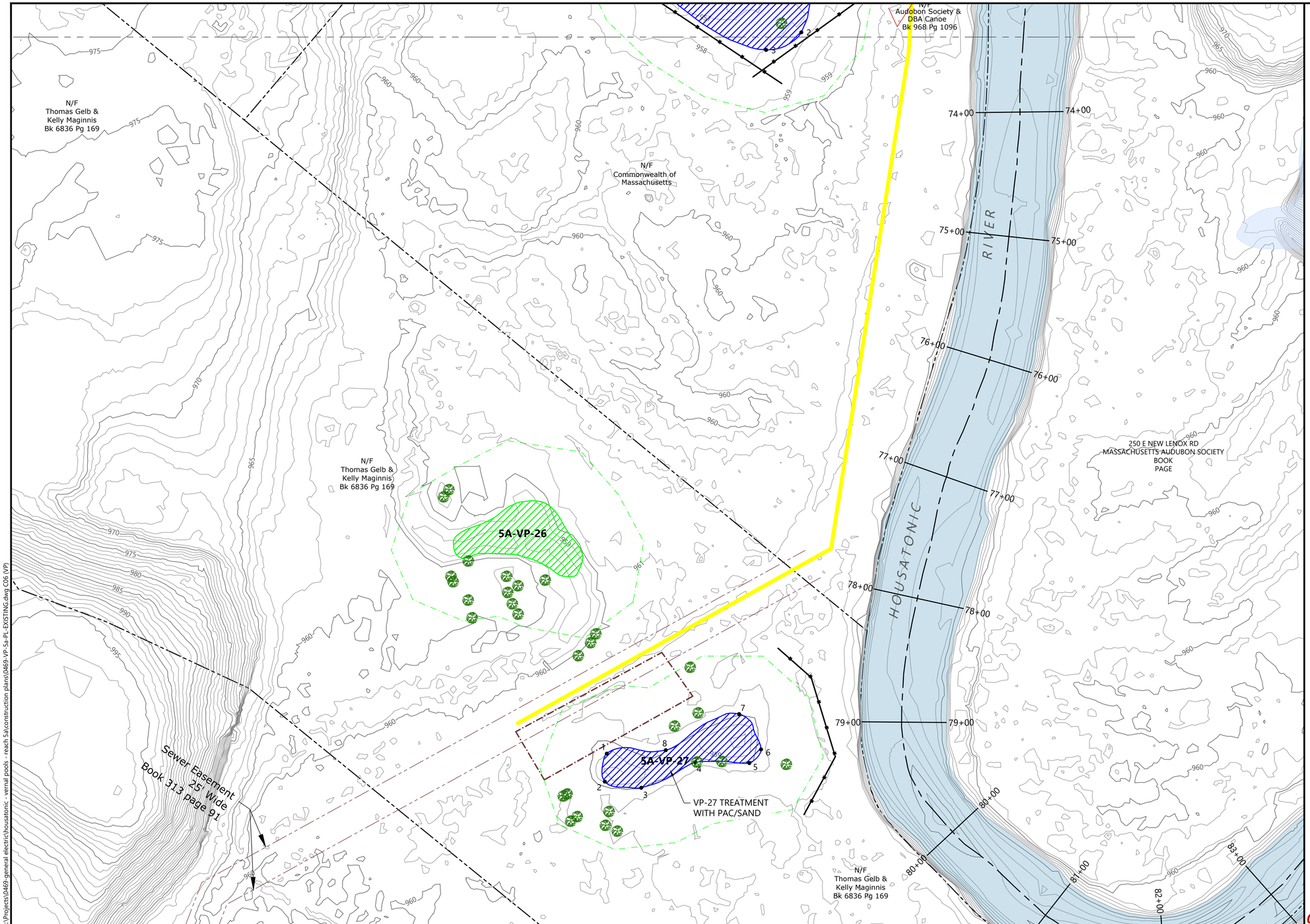
DESIGNED BY: E. GLAZA
DRAWN BY: C. YARD/P. SCIABA
CHECKED BY: C. GUEST
APPROVED BY: M. WERTH
SCALE: AS NOTED
DATE: JUNE 2025

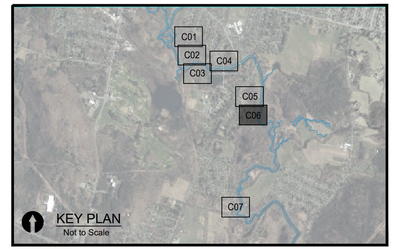
HOUSATONIC RIVER - VERNAL POOL PILOT STUDY
GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

CONSTRUCTION PLAN VIEW
5A-VP-21, 5A-VP-22

C05

SHEET # **8** OF **25**





LEGEND:

- EXISTING CONTOURS (FEET NAVD88) (1-FOOT INTERVAL)
- TAX PARCEL BOUNDARY MASSGIS
- TOWNSHIP BOUNDARY
- EASEMENT (APPROXIMATE)
- PUBLIC ROADWAY
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- RIVER CENTERLINE
- RIVER STATIONING

VERNAL POOLS

- NOT PART OF PILOT TEST
- EXCAVATION/RESTORATION
- AMENDMENT
- CONTROL
- CONTROL POINT

TSCA AREAS

NON-TSCA AREAS

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- SILT FENCE

HORIZONTAL DATUM: MASSACHUSETTS STATE PLANE MAINLAND, (NAD83), U.S. FEET
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NOTES:
1. SEE SHEET G01 FOR GENERAL NOTES AND LEGEND.
2. LOCATIONS ARE APPROXIMATE FOR ALL UTILITIES.

NORTH
0 40 80
SCALE IN FEET

PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE"

ONE INCH AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

06/30/2025 DRAFT-NOT FOR CONSTRUCTION

ANCHOR QEA

REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: E. GLAZA
DRAWN BY: C. YARD/P. SCIABA
CHECKED BY: C. GUEST
APPROVED BY: M. WERTH
SCALE: AS NOTED
DATE: JUNE 2025

HOUSATONIC RIVER - VERNAL POOL PILOT STUDY
GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

CONSTRUCTION PLAN VIEW
5A-VP-26, 5A-VP-27

C06

SHEET # 9 OF 25

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Jun 30, 2025 10:34am psciaba

N/F
TERRENCE M. HANLON
AND MARY JANE HANLON
BOOK 1624, PAGE 967

N/F
COMMONWEALTH OF MASSACHUSETTS
Book 1031 Page 607

N/F
General Electric
Company & Thomson
Prof & Reg Inc.
Book 3808 Page 23

N/F
COMMONWEALTH OF MASSACHUSETTS
Book 985 Page 259

HOLMES RD
COMMONWEALTH OF MASSACHUSETTS
BOOK 985
PAGE 259

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Commonwealth of Massachusetts & Div
of Fisheries and Wildlife
Book 985 Page 259

N/F
General Electric
Company & Thomson
Prof & Reg Inc.
Book 3808 Page 23

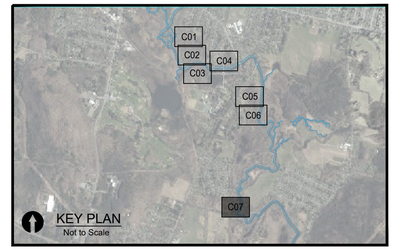
HOUSATONIC RIVER

5A-VP-52

5A-VP-54

5A-VP-55

5A-VP-57



LEGEND:

- 950 — EXISTING CONTOURS (FEET NAVD88) (1-FOOT INTERVAL)
- TAX PARCEL BOUNDARY MASSGIS
- TOWNSHIP BOUNDARY
- EASEMENT (APPROXIMATE)
- PUBLIC ROADWAY
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- RIVER CENTERLINE
- 3+00 — 3+00 RIVER STATIONING

VERNAL POOLS

- NOT PART OF PILOT TEST
- EXCAVATION/RESTORATION
- AMENDMENT
- CONTROL
- XX ● CONTROL POINT

TSCA AREAS

NON-TSCA AREAS

- EXISTING UNIMPROVED PRIMARY ACCESS ROUTE, TO BE IMPROVED BY CONTRACTOR WHERE NECESSARY, LOCATION APPROXIMATE
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- SILT FENCE

HORIZONTAL DATUM: MASSACHUSETTS STATE PLANE MAINLAND, (NAD83), U.S. FEET
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NOTES:
1. SEE SHEET G01 FOR GENERAL NOTES AND LEGEND.
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NORTH

0 40 80
SCALE IN FEET

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06/30/2025 DRAFT-NOT FOR CONSTRUCTION

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Jun 30, 2025 10:37am psciaba

ANCHOR QEA

REVISIONS

REV	DATE	BY	APP'D	DESCRIPTION

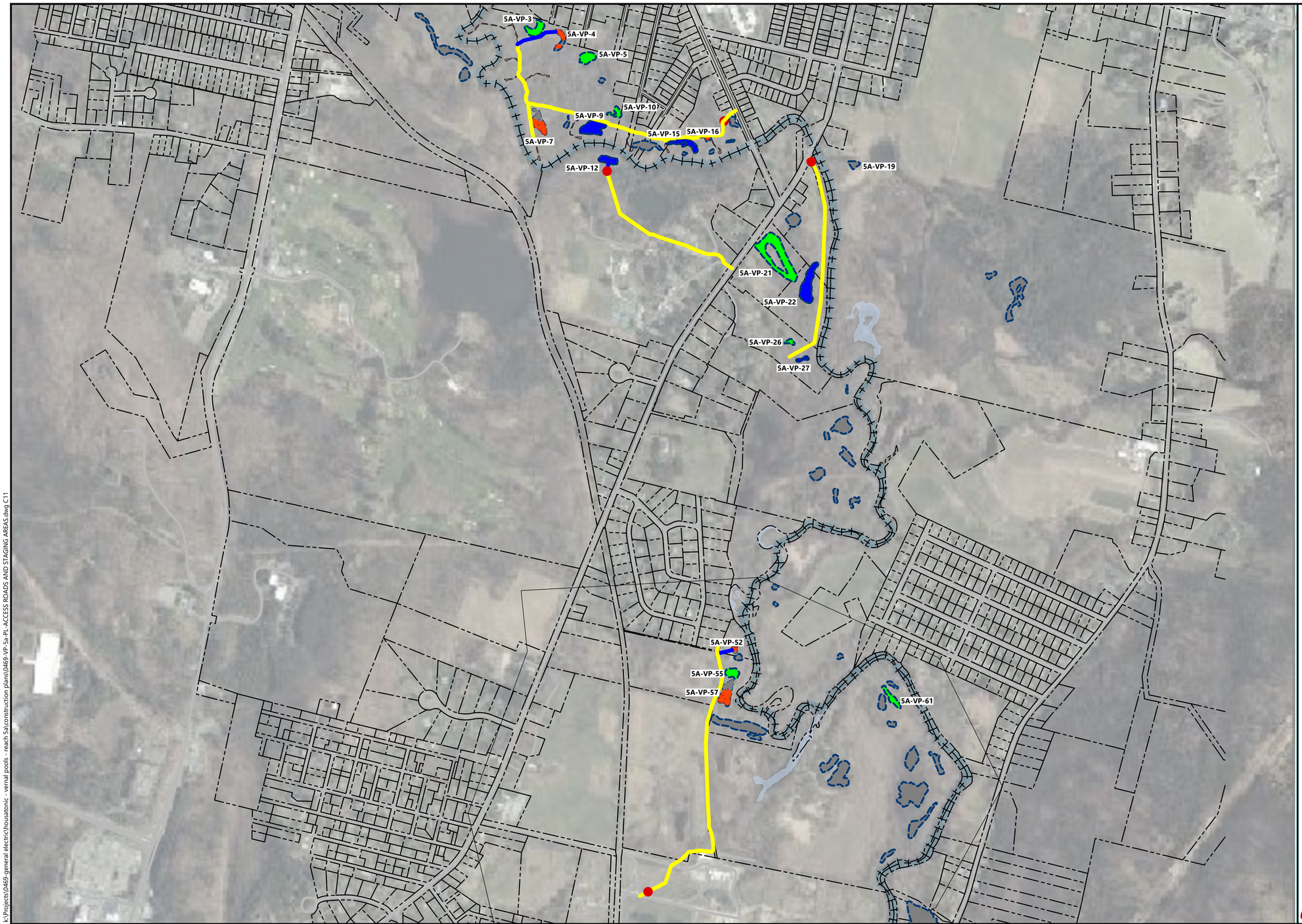
DESIGNED BY: E. GLAZA
DRAWN BY: C. YARD/P. SCIABA
CHECKED BY: C. GUEST
APPROVED BY: M. WERTH
SCALE: AS NOTED
DATE: JUNE 2025

HOUSATONIC RIVER - VERNAL POOL PILOT STUDY
GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

CONSTRUCTION PLAN VIEW
5A-VP-52, 5A-VP-55, 5A-VP-57

C07

SHEET # 10 OF 25



LEGEND:

- TAX PARCEL BOUNDARY MASSGIS
- TOWNSHIP BOUNDARY
- PUBLIC ROADWAY
- RIVER CENTERLINE
- 3+00 — 3+00 RIVER STATIONING

VERNAL POOLS (AECOM 2020, GE 2021)

- NOT PART OF PILOT TEST

VERNAL POOLS SELECTED FOR PILOT STUDY

- EXCAVATION/RESTORATION
- AMENDMENT
- CONTROL
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HORIZONTAL DATUM: MASSACHUSETTS STATE PLANE MAINLAND, (NAD83), U.S. FEET.

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

NORTH

0 500 1000

SCALE IN FEET

06/30/2025 DRAFT-NOT FOR CONSTRUCTION

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ANCHOR QEA

REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: E. GLAZA
DRAWN BY: C. YARD/P. SCIABA
CHECKED BY: C. GUEST
APPROVED BY: M. WERTH
SCALE: AS NOTED
DATE: JUNE 2025

HOUSATONIC RIVER - VERNAL POOL PILOT STUDY
GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

OVERALL ACCESS SITE PLAN

C11

SHEET # 11 OF 25

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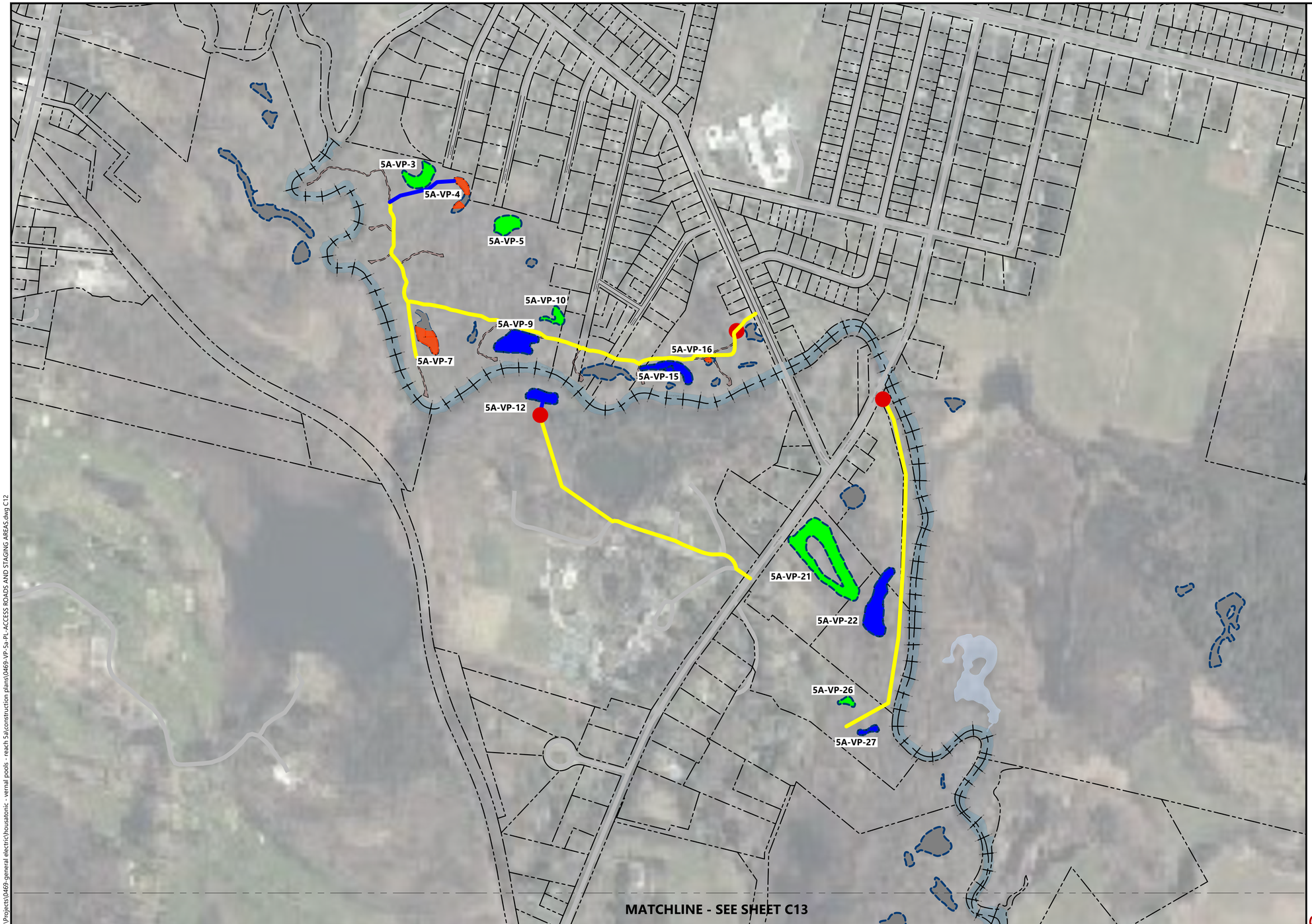
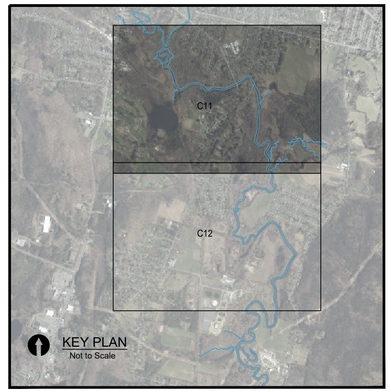
Jun 30, 2025 10:32am psciaba





LEGEND:

- TAX PARCEL BOUNDARY MASSGIS
- TOWNSHIP BOUNDARY
- PUBLIC ROADWAY
- RIVER CENTERLINE
- 3+00 — 3+00 RIVER STATIONING

VERNAL POOLS (AECOM 2020, GE 2021)

- NOT PART OF PILOT TEST

VERNAL POOLS SELECTED FOR PILOT STUDY

- EXCAVATION/RESTORATION
- AMENDMENT
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HORIZONTAL DATUM: MASSACHUSETTS STATE PLANE MAINLAND, (NAD83), U.S. FEET.

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

NORTH

0 300 600

SCALE IN FEET

06/30/2025 DRAFT-NOT FOR CONSTRUCTION

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ANCHOR QEA

REVISIONS				
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HOUSATONIC RIVER - VERNAL POOL PILOT STUDY
GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

TEMPORARY ACCESS ROADS (NORTH)

C12

SHEET # 12 OF 25

k:\Projects\0469-general electric\housatonic - vernal pools - reach 5a\construction plans\0469-VP-5a-PL-ACCESS ROADS AND STAGING AREAS.dwg C12

Jun 30, 2025 10:35am psciaba

MATCHLINE - SEE SHEET C12

5A-VP-52

5A-VP-55

5A-VP-57

5A-VP-61

LEGEND:

- TAX PARCEL BOUNDARY MASSGIS
- TOWNSHIP BOUNDARY
- PUBLIC ROADWAY
- RIVER CENTERLINE
- 3+00 ——— 3+00 RIVER STATIONING

VERNAL POOLS (AECOM 2020, GE 2021)

- NOT PART OF PILOT TEST

VERNAL POOLS SELECTED FOR PILOT STUDY

- EXCAVATION/RESTORATION
- AMENDMENT
- CONTROL
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VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

NORTH

0 300 600

SCALE IN FEET

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06/30/2025 DRAFT-NOT FOR CONSTRUCTION

ANCHOR QEA

REVISIONS

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CHECKED BY: C. GUEST
APPROVED BY: M. WERTH
SCALE: AS NOTED
DATE: JUNE 2025

HOUSATONIC RIVER - VERNAL POOL PILOT STUDY
GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

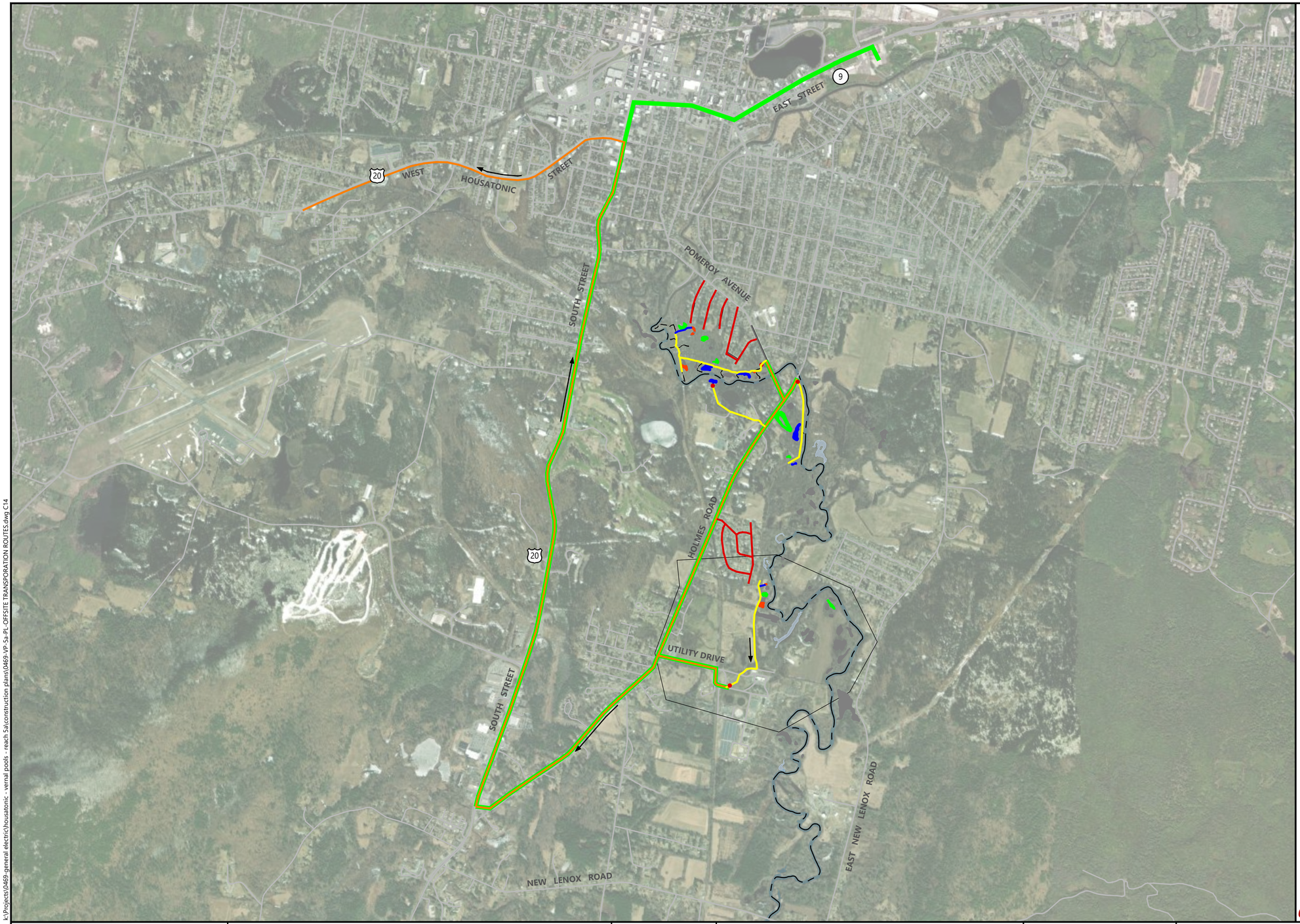
TEMPORARY ACCESS ROADS (SOUTH)

C13

SHEET # **13** OF **25**

K:\Projects\0469-general electric\housatonic - vernal pools - reach 5A\construction plans\0469-VP-5a-PL-ACCESS ROADS AND STAGING AREAS.dwg C13

Jun 30, 2025 10:34am psciaba



LEGEND:

- PUBLIC ROADWAY
- RIVER CENTERLINE
- ROAD USE RESTRICTED
- TRUCK ROUTE FOR OFFSITE DISPOSAL
- GENERAL TRAVEL DIRECTION TO DISPOSAL
- TRUCK ROUTE TO BUILDING 64G WATER TREATMENT FACILITY

VERNAL POOLS (AECOM 2020, GE 2021)

- NOT PART OF PILOT TEST

VERNAL POOLS SELECTED FOR PILOT STUDY

- EXCAVATION/RESTORATION
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- CONTROL
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NORTH

0 1200 2400

SCALE IN FEET

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06/30/2025 DRAFT-NOT FOR CONSTRUCTION

k:\Projects\0469-general electric\housatonic - vernal pools - reach 5a\construction plans\0469-VP-5a-PL-OFFSITE TRANSPORATION ROUTES.dwg C14

Jun 30, 2025 10:34am psciaba

ANCHOR QEA

REVISIONS

REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: E. GLAZA
DRAWN BY: C. YARD/P. SCIABA
CHECKED BY: C. GUEST
APPROVED BY: M. WERTH
SCALE: AS NOTED
DATE: JUNE 2025

HOUSATONIC RIVER - VERNAL POOL PILOT STUDY
GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

OFFSITE TRANSPORTATION ROUTES

C14

SHEET # **14** OF **25**

Vernal Pool VP-4 Control Points			
VP_ID	PtNum	Easting_X	Northing_Y
5A-VP-4	1	184192.37	2987488.39
5A-VP-4	2	184255.81	2987491.44
5A-VP-4	3	184263.36	2987500.58
5A-VP-4	4	184230.49	2987532.16
5A-VP-4	5	184203.62	2987508.51
5A-VP-4	6	184292.53	2987569.44
5A-VP-4	7	184284.46	2987624.75
5A-VP-4	8	184255.45	2987662.44
5A-VP-4	9	184203.88	2987672.05
5A-VP-4	10	184217.8	2987635.87
5A-VP-4	11	184263.08	2987572.53

Vernal Pool VP-7 Control Points			
VP_ID	PtNum	Easting_X	Northing_Y
5A-VP-7	1	184068.44	2986756.44
5A-VP-7	2	184090.35	2986720.44
5A-VP-7	3	184102.78	2986621.7
5A-VP-7	4	184088.33	2986612.26
5A-VP-7	5	184069.44	2986623.37
5A-VP-7	6	184053.33	2986656.15
5A-VP-7	7	183986.89	2986697.91
5A-VP-7	8	183971.84	2986785.94
5A-VP-7	9	184028.97	2986766.86
5A-VP-7	10	184028.25	2986718.41

Vernal Pool VP-9 Control Points			
5A-VP-9	1	184450.55	2986632.19
5A-VP-9	2	184446.16	2986678.83
5A-VP-9	3	184438.43	2986655.23
5A-VP-9	4	184512.23	2986728.94
5A-VP-9	5	184563.64	2986761.48
5A-VP-9	6	184650.33	2986737.05
5A-VP-9	7	184700.63	2986719.31
5A-VP-9	8	184702.95	2986688.27
5A-VP-9	9	184663.89	2986681.09
5A-VP-9	10	184654.39	2986661.77
5A-VP-9	11	184668.29	2986638.23
5A-VP-9	12	184651.42	2986614.24
5A-VP-9	13	184494.74	2986628.75

Vernal Pool VP-12 Control Points			
VP_ID	PtNum	Easting_X	Northing_Y
5A-VP-12	1	184632.32	2986350.38
5A-VP-12	2	184629.15	2986374.7
5A-VP-12	3	184667.97	2986407.61
5A-VP-12	4	184701.97	2986405.82
5A-VP-12	5	184739.96	2986392
5A-VP-12	8	184690.78	2986339.62
5A-VP-12	9	184749.17	2986322.38
5A-VP-12	11	184752.25	2986386.95
5A-VP-12	12	184815.17	2986377.17
5A-VP-12	13	184816.12	2986323.43

Vernal Pool VP-15 Control Points			
VP_ID	PtNum	Easting_X	Northing_Y
5A-VP-15	1	185327.34	2986517.89
5A-VP-15	2	185310.39	2986528.58
5A-VP-15	3	185317.62	2986539.99
5A-VP-15	4	185397.02	2986552.88
5A-VP-15	5	185445.4	2986570.1
5A-VP-15	6	185545.19	2986564.89
5A-VP-15	7	185618.2	2986502.19
5A-VP-15	8	185622.89	2986447.15
5A-VP-15	9	185586.08	2986439.86
5A-VP-15	10	185565.25	2986493.16
5A-VP-15	11	185519.2	2986512.74
5A-VP-15	12	185503.3	2986546.1
5A-VP-15	13	185456.37	2986522.52
5A-VP-15	14	185471.45	2986498.01

Vernal PoolVP-16 Control Points			
5A-VP-16	1	185700.68	2986578.41
5A-VP-16	2	185723.33	2986567.44
5A-VP-16	3	185740.84	2986567.44
5A-VP-16	4	185735.89	2986593.98

Vernal Pool VP-22 Control Points			
VP_ID	PtNum	Easting_X	Northing_Y
5A-VP-22	1	186783.53	2984975.21
5A-VP-22	2	186775.37	2984939.45
5A-VP-22	3	186747.22	2984925.37
5A-VP-22	4	186650.21	2984995.66
5A-VP-22	5	186668.51	2985107.97
5A-VP-22	6	186702.01	2985162.71
5A-VP-22	7	186715.89	2985219.57
5A-VP-22	8	186805.05	2985335.48
5A-VP-22	9	186828.82	2985332.46
5A-VP-22	10	186836.08	2985307.14
5A-VP-22	11	186791.01	2985235.55
5A-VP-22	12	186795.32	2985193.4
5A-VP-22	13	186766.76	2985116.15
5A-VP-22	14	186767.32	2985018.93

Vernal Pool VP-27 Control Points			
VP_ID	PtNum	Easting_X	Northing_Y
5A-VP-27	1	186619.85	2984362.55
5A-VP-27	2	186618.26	2984340.15
5A-VP-27	3	186647.39	2984335.23
5A-VP-27	4	186690.61	2984355.64
5A-VP-27	5	186733.81	2984354.97
5A-VP-27	6	186743.17	2984365.91
5A-VP-27	7	186725.63	2984394.17
5A-VP-27	8	186667.01	2984365.28

Vernal Pool VP-52 Control Points			
VP_ID	PtNum	Easting_X	Northing_Y
5A-VP-52	1	185986.7	2981422.44
5A-VP-52	2	185968.03	2981459.41
5A-VP-52	3	185981.4	2981470.44
5A-VP-52	4	185998.92	2981466.73
5A-VP-52	5	186020.45	2981469.31
5A-VP-52	6	186022.42	2981449.44
5A-VP-52	7	186019.37	2981425.44

Vernal Pool VP-57 Control Points			
5A-VP-57	1	185881.01	2981047.44
5A-VP-57	2	185909.55	2981041.33
5A-VP-57	3	185928.97	2981051.23
5A-VP-57	4	185966.14	2981032.77
5A-VP-57	5	185949.84	2980950.05
5A-VP-57	6	185954.7	2980934.33
5A-VP-57	7	185939.65	2980888.44
5A-VP-57	8	185903.73	2980891.48
5A-VP-57	9	185892.26	2980910.6
5A-VP-57	10	185850.28	2980911.88
5A-VP-57	11	185834.1	2980925.75
5A-VP-57	12	185837.89	2980952.43
5A-VP-57	13	185860.54	2980993.75
5A-VP-57	14	185878.72	2980985.41
5A-VP-57	15	185900.27	2980945.68

PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE"

ONE INCH AT FULL SIZE. IF NOT ONE INCH SCALE ACCORDINGLY

06/30/2025 DRAFT-NOT FOR CONSTRUCTION

ANCHOR QEA

REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: E. GLAZA
DRAWN BY: C. YARD/P. SCIABA
CHECKED BY: C. GUEST
APPROVED BY: M. WERTH
SCALE: AS NOTED
DATE: JUNE 2025

HOUSATONIC RIVER - VERNAL POOL PILOT STUDY
GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

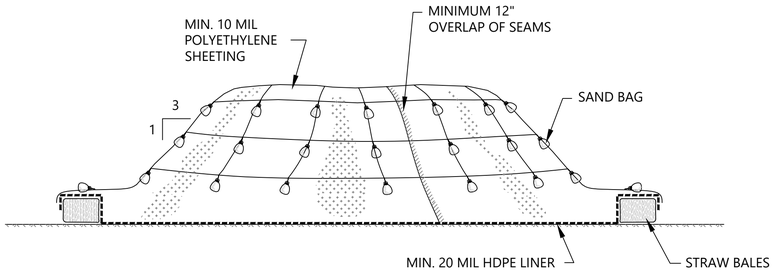
VERNAL POOL CONTROL POINTS

C50

SHEET # 15 OF 25

K:\Projects\0469 general electric\housatonic - vernal pools - reach 5a\construction plans\0469-VP-5a-PL Title Sheet.dwg C50

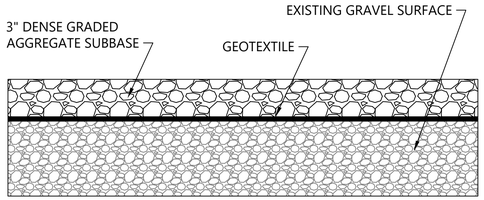
Jun 30, 2025 10:32am psciaba



NOTES:

1. STOCKPILES MUST BE COVERED WITH MINIMUM 10 MIL POLYETHYLENE SHEETING WHENEVER LOADING OR PLACEMENT IS NOT OCCURRING.
2. STOCKPILE AREAS MUST BE SUBJECT TO DUST CONTROLS WHENEVER LOADING OR PLACEMENT IS OCCURRING AND AS DIRECTED BY OWNER'S REPRESENTATIVE.
3. SHEETING COVERING STOCKPILE MUST BE MAINTAINED TIGHTLY IN PLACE BY USING SAND BAGS ON ROPES WITH A MAXIMUM 10'-0" GRID SPACING IN ALL DIMENSIONS.
4. CONTRACTOR MUST PLACE STRAW BALE BERMS AROUND STOCKPILES.

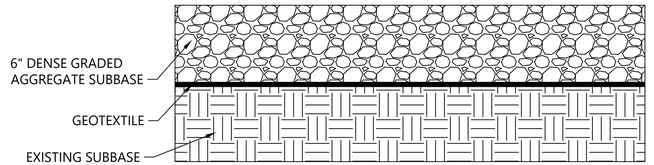
1 - TYPICAL STOCKPILE DETAIL
SCALE:NOT TO SCALE



NOTE:

1. GEOTEXTILES MUST BE WOVEN AND COMPLY WITH MINIMUM REQUIREMENTS FOR AASHTO M 288 CLASS 2 - SEPARATION AND STABILIZATION.
2. ALTERNATIVE STAGING AREA DETAILS MAY BE PROPOSED BY THE CONTRACTOR, SUBJECT TO OWNER'S REPRESENTATIVE APPROVAL.

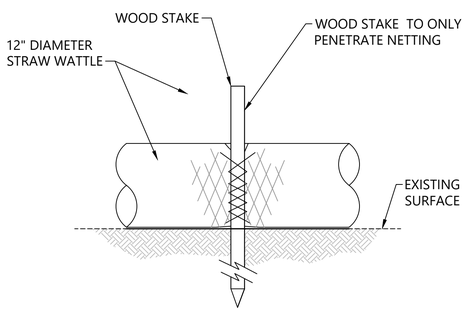
2 - EXISTING PRIMARY TEMPORARY ACCESS ROAD IMPROVEMENT DETAIL
SCALE:NOT TO SCALE



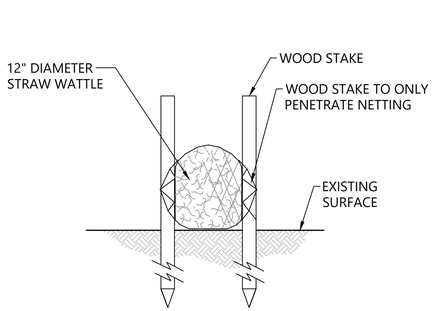
NOTE:

1. GEOTEXTILES MUST BE WOVEN AND COMPLY WITH MINIMUM REQUIREMENTS FOR AASHTO M 288 CLASS 2 - SEPARATION AND STABILIZATION.
2. ALTERNATIVE STAGING AREA DETAILS MAY BE PROPOSED BY THE CONTRACTOR, SUBJECT TO OWNER'S REPRESENTATIVE APPROVAL.

3 - STAGING AREA DETAIL
SCALE:NOT TO SCALE



JOINT DETAIL
NOT TO SCALE

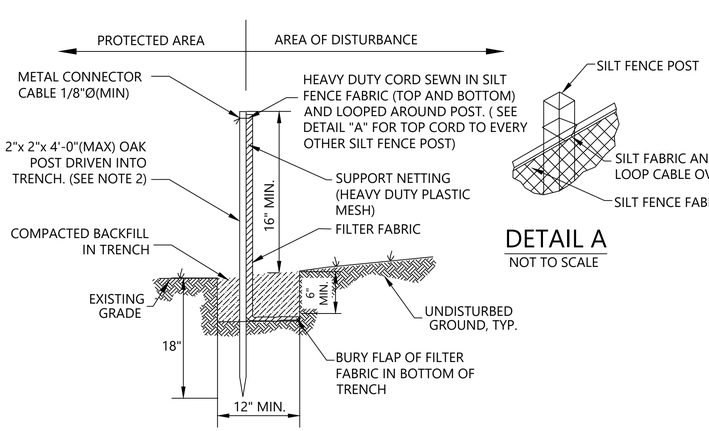


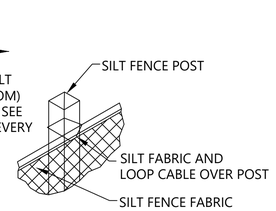
STAKING DETAIL
NOT TO SCALE

NOTES:

1. STRAW WATTLE MUST BE PLACED IN A ROW WITH A MINIMUM 1-FOOT OVERLAP AT THE ENDS.
2. STRAW WATTLE MUST BE SECURELY ANCHORED IN PLACE BY TWO STAKES DRIVEN THROUGH THE STRAW WATTLE NETTING AS SHOWN IN THE STRAW WATTLE DETAIL. STAKES MUST BE DRIVEN FLUSH WITH THE STRAW WATTLE.
3. STRAW WATTLE MUST BE REMOVED AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
4. STRAW WATTLES PLACED ON SOIL MUST BE ANCHORED IN PLACE WITH STAKES DRIVEN THROUGH THE WATTLE EVERY 4 FEET AT A MINIMUM.
5. STRAW WATTLE TO BE PLACED AS NEEDED FOR EROSION AND RUNOFF CONTROL.

4 - STRAW WATTLE DETAIL
SCALE:NOT TO SCALE



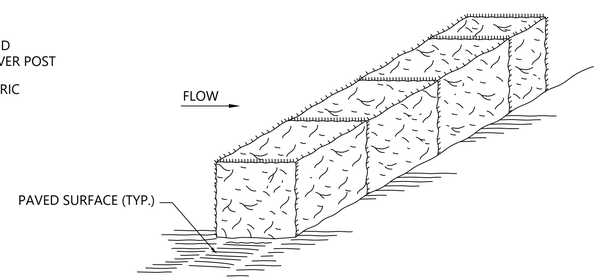


DETAIL A
NOT TO SCALE

NOTES:

1. POST FOR SILT FENCE MUST BE LOCATED ON 8' CENTERS.
2. SILT FENCE MUST BE INSTALLED PRIOR TO CONSTRUCTION.
3. INSPECTION MUST BE DAILY AND REPAIR / REPLACEMENT MUST BE MADE PROMPTLY AS NEEDED. ACCUMULATED SEDIMENT MUST BE REMOVED AND APPROPRIATELY DISPOSED OF BY THE CONTRACTOR.
4. SILT FENCE MUST BE REMOVED ONLY AS DIRECTED BY OWNER'S REPRESENTATIVE.

5 - SILT FENCE DETAIL (UNPAVED AREAS)
SCALE:NOT TO SCALE



NOTES:

1. STRAW BALES MUST BE PLACED AS SHOWN IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT STRAW BALES.
2. STRAW BALES TO BE PLACED AS NEEDED FOR EROSION AND RUNOFF CONTROL.
3. INSPECTION MUST BE DAILY AND REPAIR / REPLACEMENT MUST BE MADE PROMPTLY AS NEEDED. ACCUMULATED SEDIMENT MUST BE REMOVED AND APPROPRIATELY DISPOSED BY CONTRACTOR.
4. STRAW BALES MUST BE REMOVED ONLY AS DIRECTED BY OWNER'S REPRESENTATIVE.

6 - STRAW BALE DETAIL
SCALE:NOT TO SCALE

PLAN INTENDED TO BE VIEWED IN COLOR, ADJACENT BLOCK IS "BLUE"

ONE INCH AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

06/30/2025 DRAFT-NOT FOR CONSTRUCTION

ANCHOR QEA

REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: E. GLAZA
DRAWN BY: C. YARD/P. SCIABA
CHECKED BY: C. GUEST
APPROVED BY: M. WERTH
SCALE: AS NOTED
DATE: JUNE 2025

HOUSATONIC RIVER - VERNAL POOL PILOT STUDY
GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

MISCELLANEOUS CONSTRUCTION DETAILS

C80

SHEET # 16 OF 25

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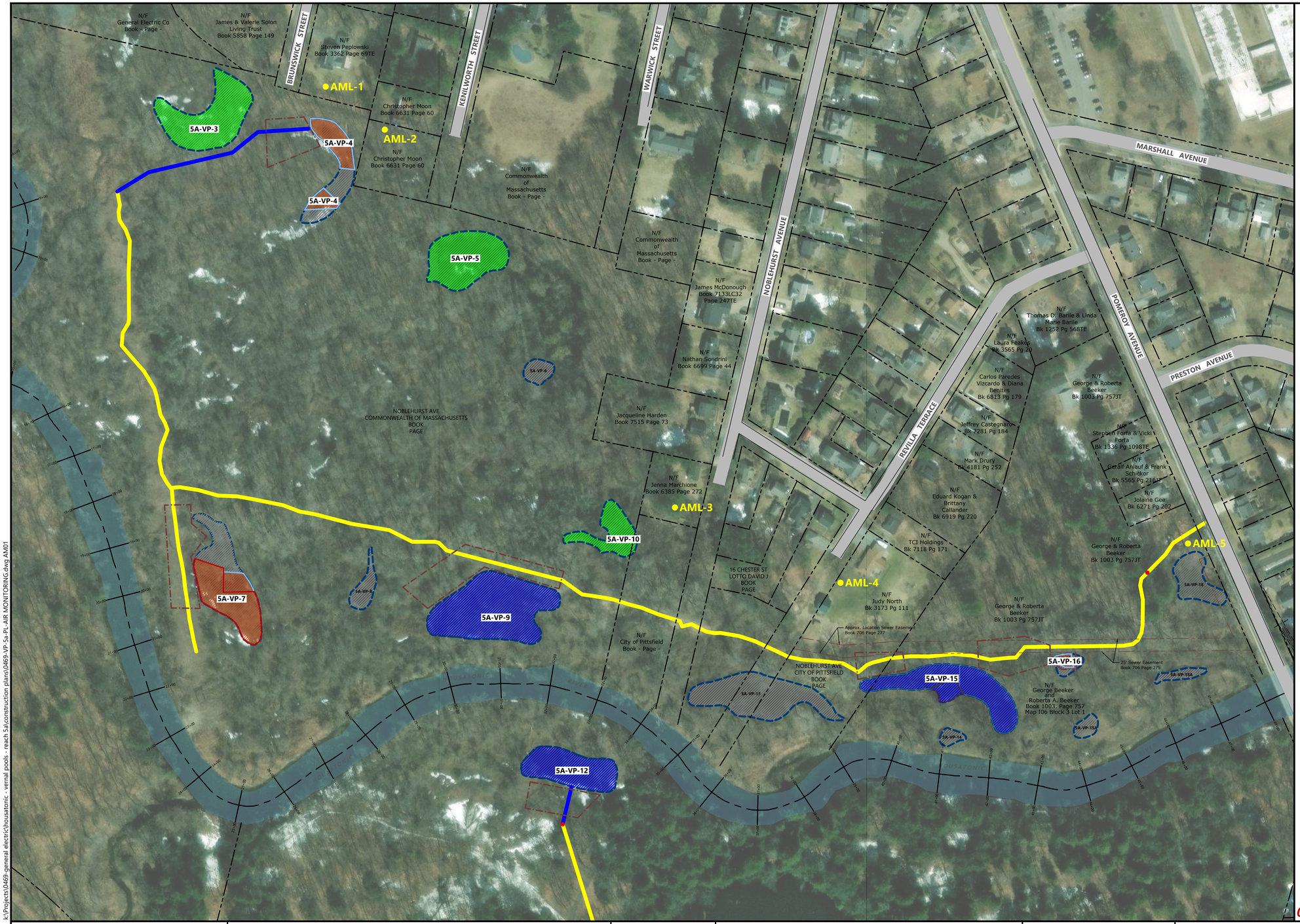

LEGEND:

- PROPERTY BOUNDARY MASSGIS
- TOWNSHIP BOUNDARY
- EASEMENT
- PUBLIC ROADWAY
- VERNAL POOL BOUNDARY
- RIVER CENTERLINE
- 3+00 ——— 3+00 RIVER STATIONING

VERNAL POOLS

- NOT PART OF PILOT TEST
- EXCAVATION/RESTORATION
- AMENDMENT
- CONTROL

TSCA AREAS

NON-TSCA AREAS

- EXISTING UNIMPROVED PRIMARY ACCESS ROUTE, TO BE IMPROVED BY CONTRACTOR AS NECESSARY, LOCATION APPROXIMATE
- PLANNED ROUTE FOR SECONDARY CONSTRUCTION MAT ACCESS ROADS TO BE DEVELOPED BY CONTRACTOR, LOCATION APPROXIMATE
- PLANNED TIRE CLEANING STATION, WITH UPGRADED TEMPORARY ACCESS ROAD FROM CLEANING STATION TO EGRESS ONTO PUBLIC ROAD, LOCATION APPROXIMATE.
- PRELIMINARY AREA IDENTIFIED FOR LOCAL TEMPORARY STAGING AREA, TO BE CONFIRMED BY CONTRACTOR UNDER OVERSIGHT BY THE PROJECT WETLAND SCIENTIST
- PROPOSED AIR MONITORING LABEL / LOCATION

HORIZONTAL DATUM: MASSACHUSETTS STATE PLANE MAINLAND, (NAD83), U.S. FEET.
VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

NOTES:

1. SEE SHEET G01 FOR GENERAL NOTES AND LEGEND.

NORTH

0 100 200

SCALE IN FEET

PLAN INTENDED TO BE VIEWED IN COLOR. ADJACENT BLOCK IS "BLUE"

ONE INCH AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

06/30/2025 DRAFT-NOT FOR CONSTRUCTION

ANCHOR QEA

REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: E. GLAZA
DRAWN BY: C. YARD/P. SCIABA
CHECKED BY: C. GUEST
APPROVED BY: M. WERTH
SCALE: AS NOTED
DATE: JUNE 2025

HOUSATONIC RIVER - VERNAL POOL PILOT STUDY
GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

AIR MONITORING LOCATIONS (NORTH AREA)

AM01

SHEET # 17 OF 25

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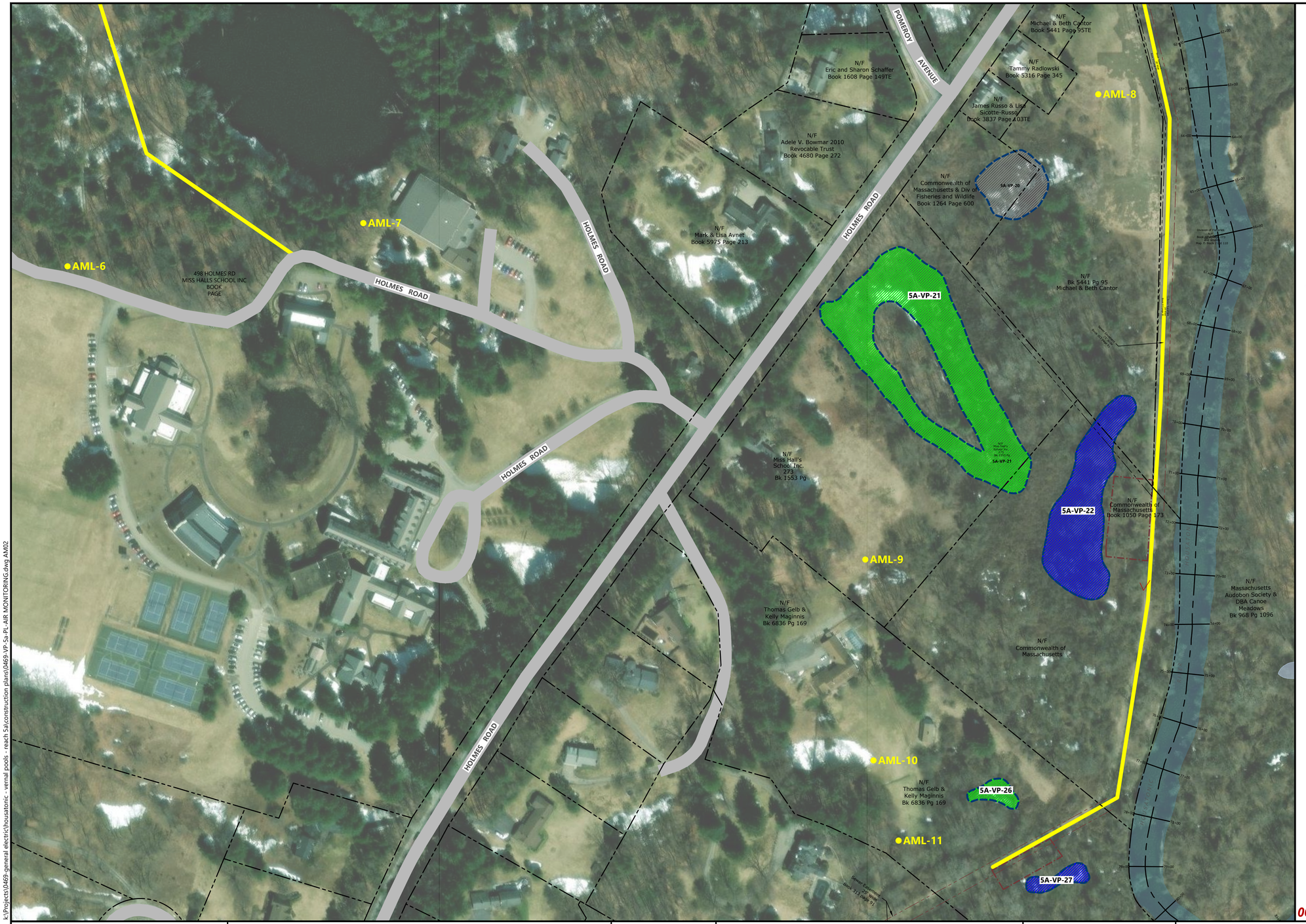

LEGEND:

- PROPERTY BOUNDARY MASSGIS
- TOWNSHIP BOUNDARY
- EASEMENT
- PUBLIC ROADWAY
- VERNAL POOL BOUNDARY
- RIVER CENTERLINE
- 3+00 ——— 3+00 RIVER STATIONING

VERNAL POOLS

- NOT PART OF PILOT TEST
- EXCAVATION/RESTORATION
- AMENDMENT
- CONTROL

TSCA AREAS

NON-TSCA AREAS

- EXISTING UNIMPROVED PRIMARY ACCESS ROUTE, TO BE IMPROVED BY CONTRACTOR AS NECESSARY, LOCATION APPROXIMATE
- PLANNED ROUTE FOR SECONDARY CONSTRUCTION MAT ACCESS ROADS TO BE DEVELOPED BY CONTRACTOR, LOCATION APPROXIMATE
- PLANNED TIRE CLEANING STATION, WITH UPGRADED TEMPORARY ACCESS ROAD FROM CLEANING STATION TO EGRESS ONTO PUBLIC ROAD, LOCATION APPROXIMATE.
- PRELIMINARY AREA IDENTIFIED FOR LOCAL TEMPORARY STAGING AREA, TO BE CONFIRMED BY CONTRACTOR UNDER OVERSIGHT BY THE PROJECT WETLAND SCIENTIST
- PROPOSED AIR MONITORING LABEL / LOCATION

HORIZONTAL DATUM: MASSACHUSETTS STATE PLANE MAINLAND, (NAD83), U.S. FEET.
VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

NOTES:

1. SEE SHEET G01 FOR GENERAL NOTES AND LEGEND.

NORTH
0 100 200
SCALE IN FEET

06/30/2025 DRAFT-NOT FOR CONSTRUCTION

PLAN INTENDED TO BE VIEWED IN "COLOR" ADJACENT BLOCK IS "BLUE"

ONE INCH AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

ANCHOR QEA

REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: E. GLAZA
DRAWN BY: C. YARD/P. SCIABA
CHECKED BY: C. GUEST
APPROVED BY: M. WERTH
SCALE: AS NOTED
DATE: JUNE 2025

HOUSATONIC RIVER - VERNAL POOL PILOT STUDY
GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

AIR MONITORING LOCATIONS (CENTRAL AREA)

AM02

SHEET # 18 OF 25

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Jun 30, 2025 10:35am psciaba

LEGEND:

- PROPERTY BOUNDARY MASSGIS
- TOWNSHIP BOUNDARY
- EASEMENT
- PUBLIC ROADWAY
- VERNAL POOL BOUNDARY
- RIVER CENTERLINE
- 3+00 ——— 3+00 RIVER STATIONING

VERNAL POOLS

- NOT PART OF PILOT TEST
- EXCAVATION/RESTORATION
- AMENDMENT
- CONTROL

TSCA AREAS

NON-TSCA AREAS

- EXISTING UNIMPROVED PRIMARY ACCESS ROUTE, TO BE IMPROVED BY CONTRACTOR AS NECESSARY, LOCATION APPROXIMATE
- PLANNED ROUTE FOR SECONDARY CONSTRUCTION MAT ACCESS ROADS TO BE DEVELOPED BY CONTRACTOR, LOCATION APPROXIMATE
- PLANNED TIRE CLEANING STATION, WITH UPGRADED TEMPORARY ACCESS ROAD FROM CLEANING STATION TO EGRESS ONTO PUBLIC ROAD, LOCATION APPROXIMATE.
- PRELIMINARY AREA IDENTIFIED FOR LOCAL TEMPORARY STAGING AREA, TO BE CONFIRMED BY CONTRACTOR UNDER OVERSIGHT BY THE PROJECT WETLAND SCIENTIST
- PROPOSED AIR MONITORING LABEL / LOCATION

HORIZONTAL DATUM: MASSACHUSETTS STATE PLANE MAINLAND, (NAD83), U.S. FEET.
VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

NOTES:

1. SEE SHEET G01 FOR GENERAL NOTES AND LEGEND.

NORTH

0 150 300

SCALE IN FEET

PLAN INTENDED TO BE VIEWED IN COLOR, ADJACENT BLOCK IS "BLUE"

ONE INCH AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

06/30/2025 DRAFT-NOT FOR CONSTRUCTION

ANCHOR QEA

REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: E. GLAZA
DRAWN BY: C. YARD/P. SCIABA
CHECKED BY: C. GUEST
APPROVED BY: M. WERTH
SCALE: AS NOTED
DATE: JUNE 2025

HOUSATONIC RIVER - VERNAL POOL PILOT STUDY
GENERAL ELECTRIC COMPANY
PITTSFIELD, MA

AIR MONITORING LOCATIONS (SOUTH AREA)

AM03

SHEET # 19 OF 25

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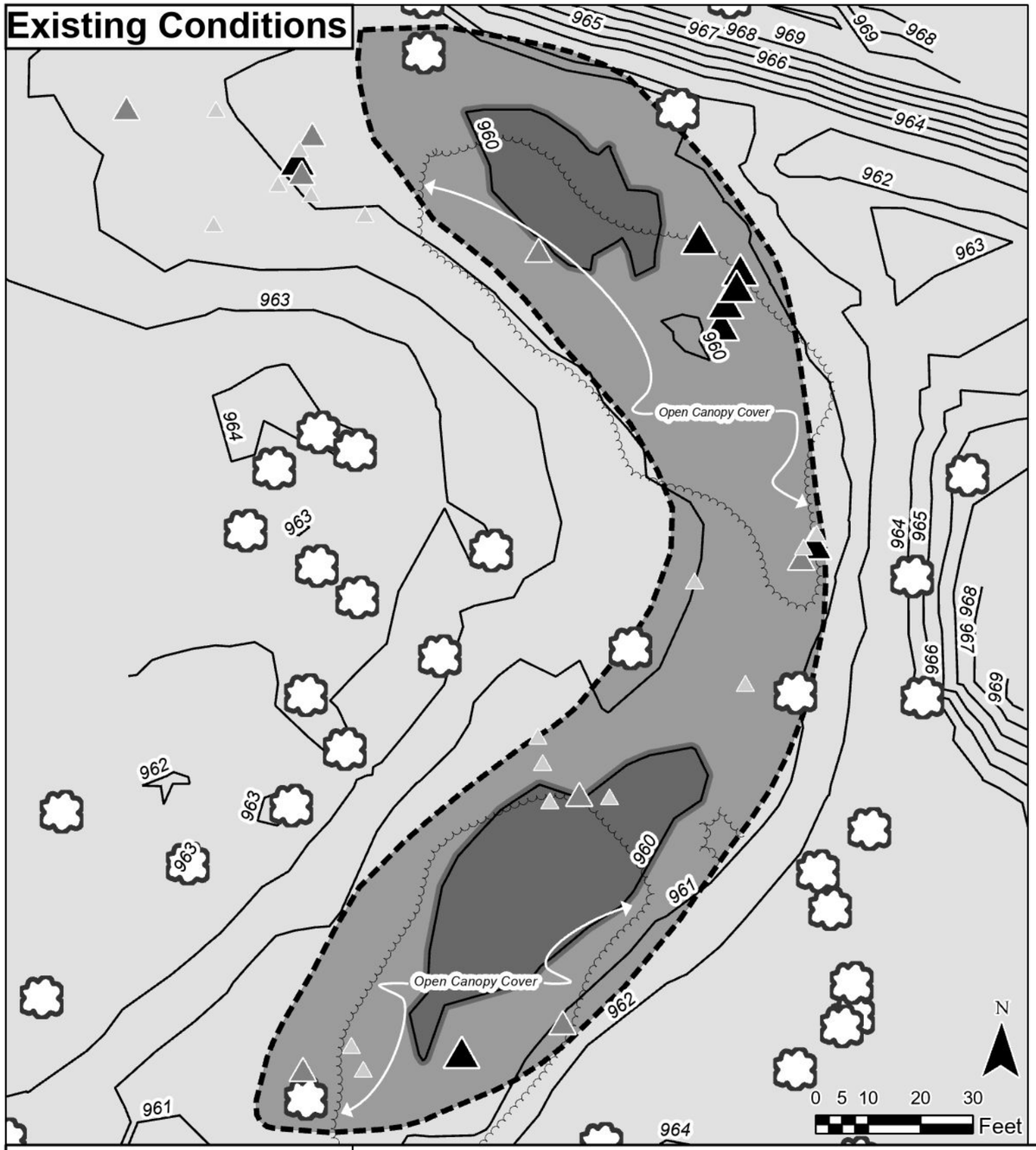
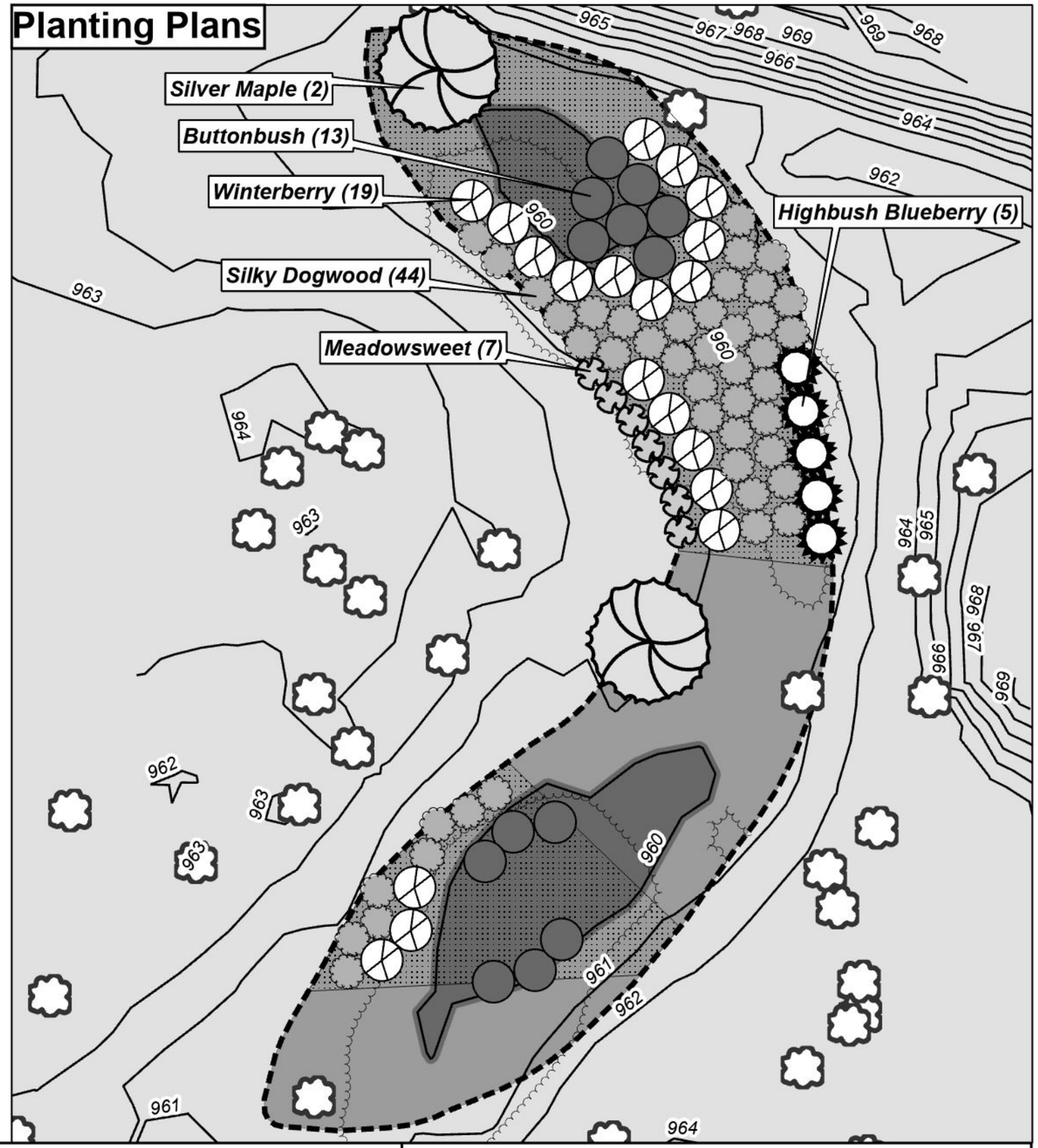
Existing Conditions



Planting Plans



Notes:

- Coarse woody debris to be replaced as directed by wetland scientist.
- Wetland seed mix to be applied to all disturbed portions of the pool with bare soil.

Legend

- Canopy Cover
- Pool Boundary
- 1-Foot Contour
- Deeply Flooded Pocket
- Limits of Seasonal Flooding
- Existing Trees
- Vernal Pool Remediation Areas

Existing Coarse Woody Debris

- <1-10 SF
- 11-20 SF
- 21-50 SF

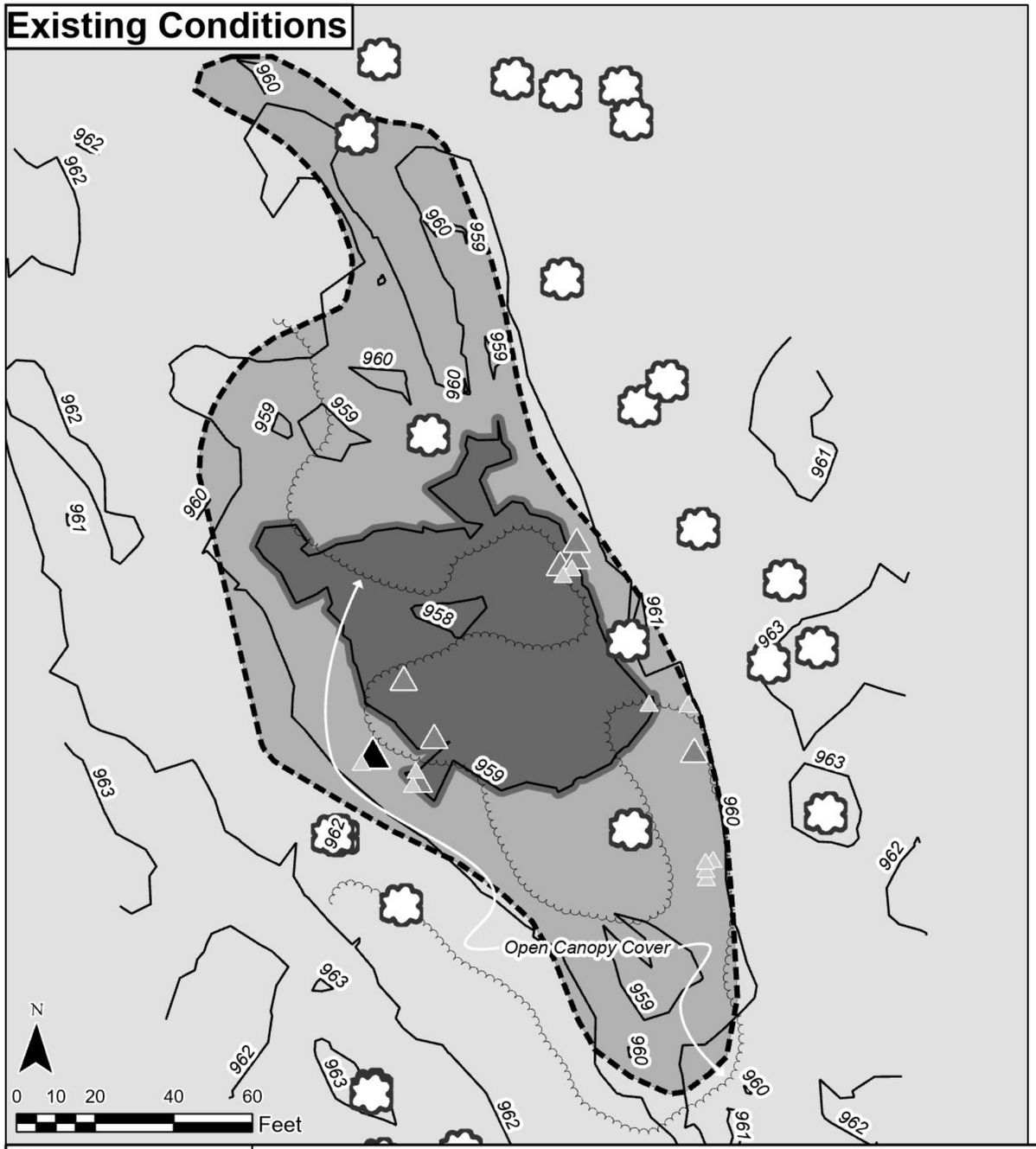
Existing Conditions & Planting Plan
5A-VP-4
Housatonic River - Pittsfield, MA

SCALE	DATE	PROJECT NO.
1:300	6/18/2025	60670015

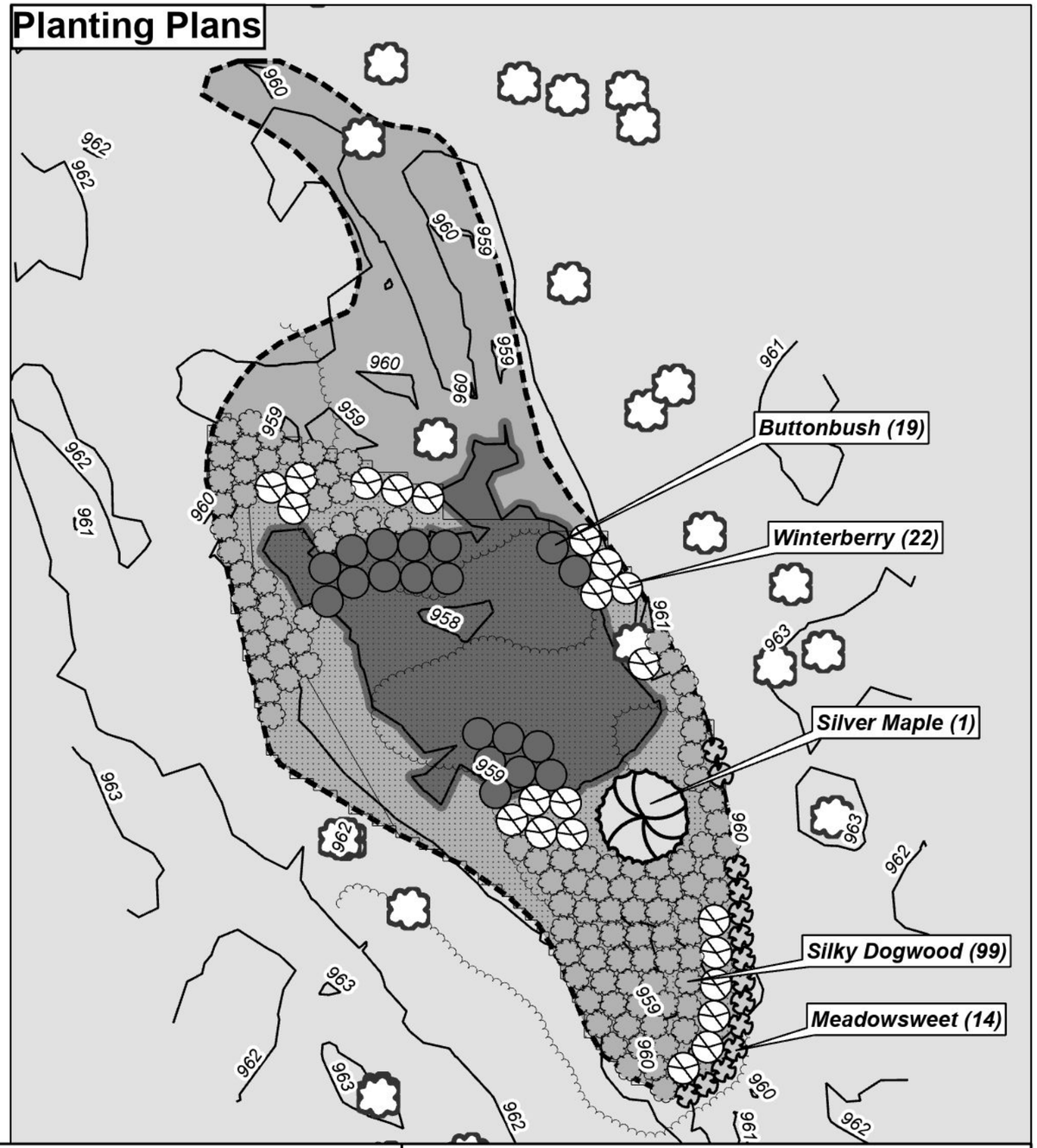
AECOM

Figure R1
Map Sheet 1 of 6

Existing Conditions



Planting Plans



Notes:
- Coarse woody debris to be replaced as directed by wetland scientist.
- Wetland seed mix to be applied to all disturbed portions of the pool with bare soil.

Legend

- Canopy Cover
- Pool Boundary
- 1-Foot Contour
- Deep Flooded Pocket
- Limits of Seasonal Flooding
- Existing Trees
- Vernal Pool Remediation Areas

Existing Coarse Woody Debris

- <1-10 SF
- 11-20 SF
- 21-50 SF

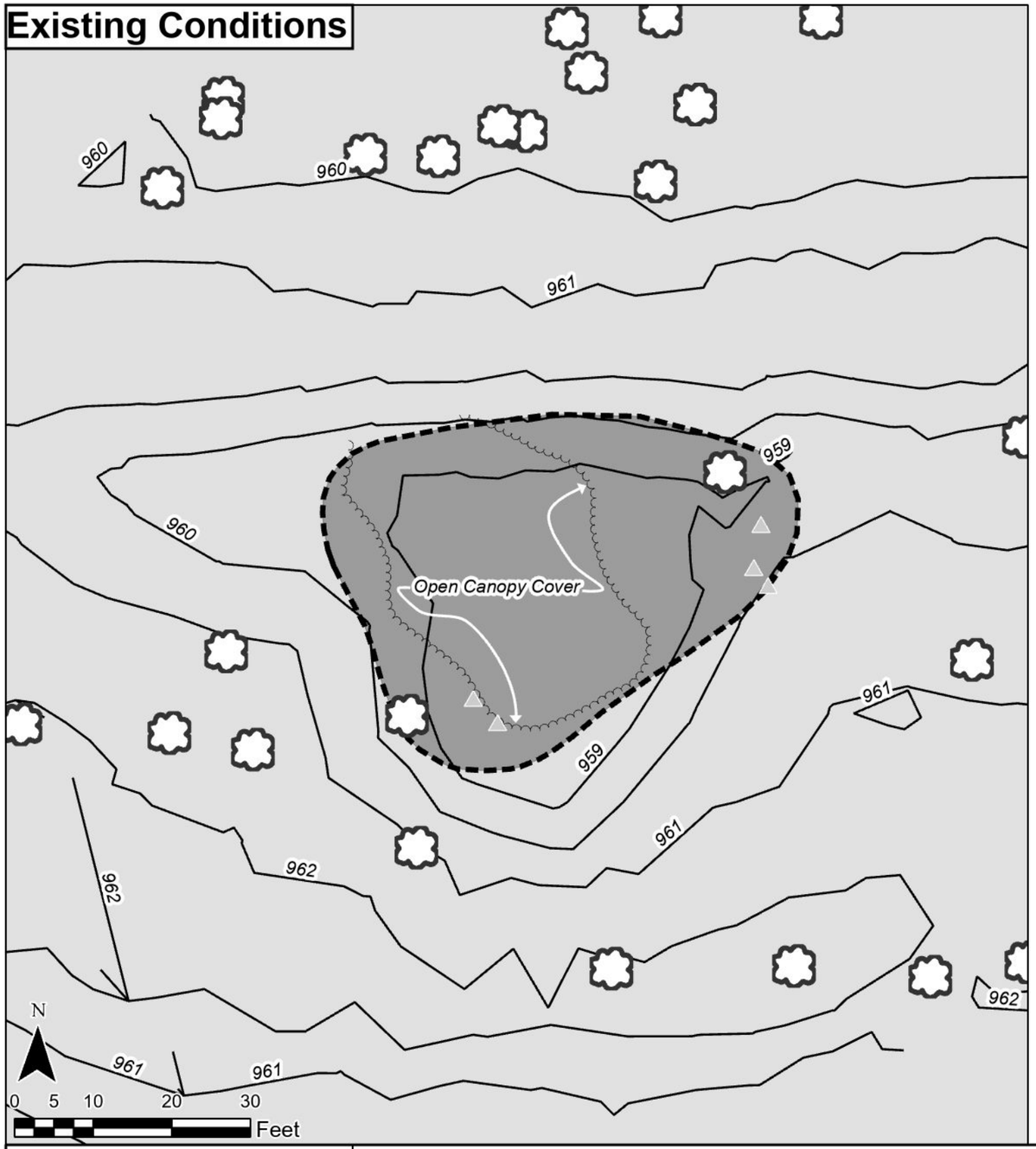
Existing Conditions & Planting Plan
5A-VP-7
Housatonic River - Pittsfield, MA

SCALE	DATE	PROJECT NO.
1:400	6/18/202	60670015

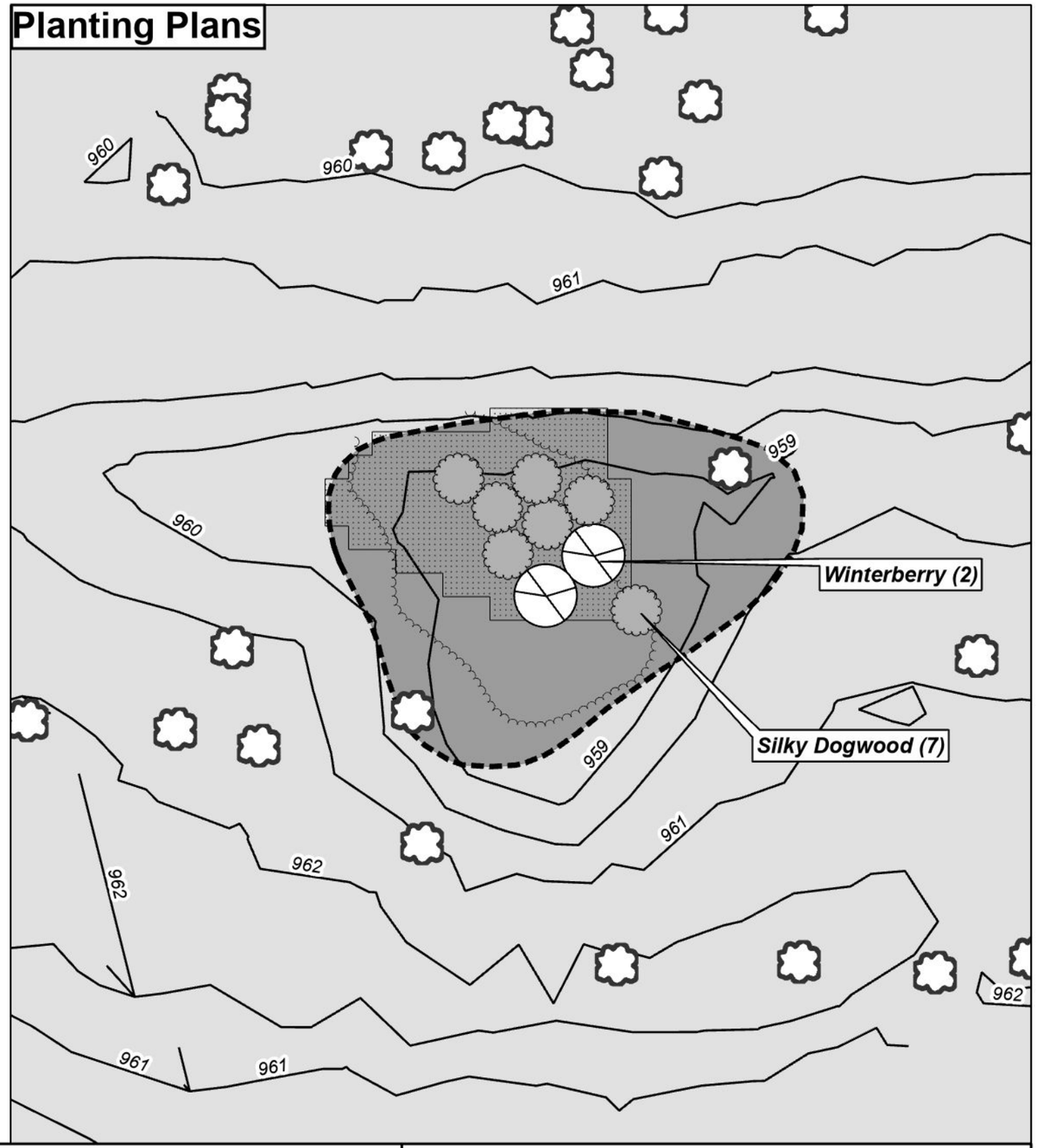
AECOM

Figure R2
Map Sheet 2 of 6

Existing Conditions



Planting Plans



Notes:

- Coarse woody debris to be replaced as directed by wetland scientist.
- Wetland seed mix to be applied to all disturbed portions of the pool with bare soil.

Legend

- Canopy Cover
- Pool Boundary
- 1-Foot Contour
- Vernal Pool Remediation Areas
- Deeply Flooded Pocket
- Limits of Seasonal Flooding
- Existing Trees
- **Existing Coarse Woody Debris**
  - <1-10 SF

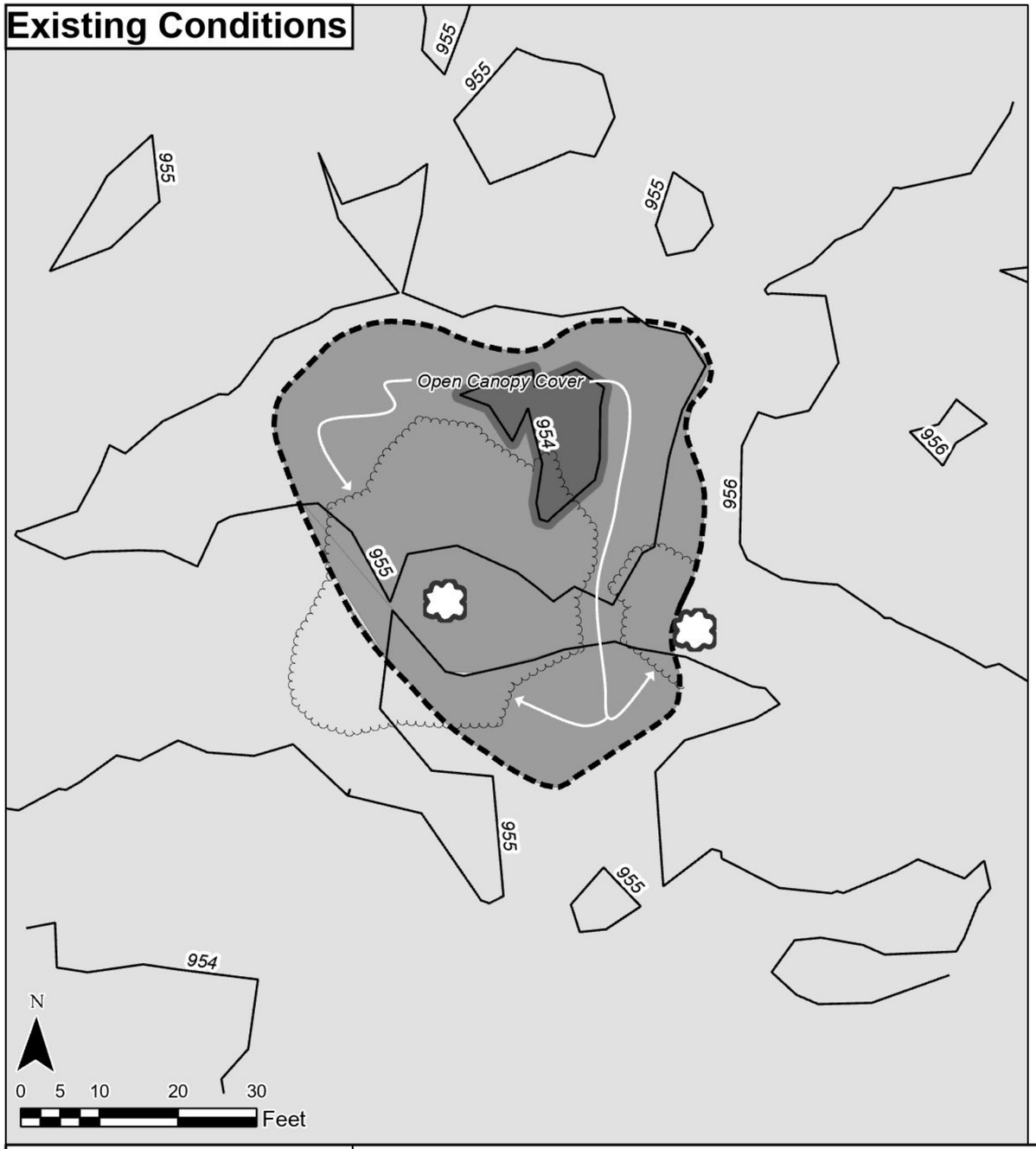
Existing Conditions & Planting Plan
5A-VP-16
Housatonic River - Pittsfield, MA

SCALE	DATE	PROJECT NO.
1:200	6/18/2025	60670015

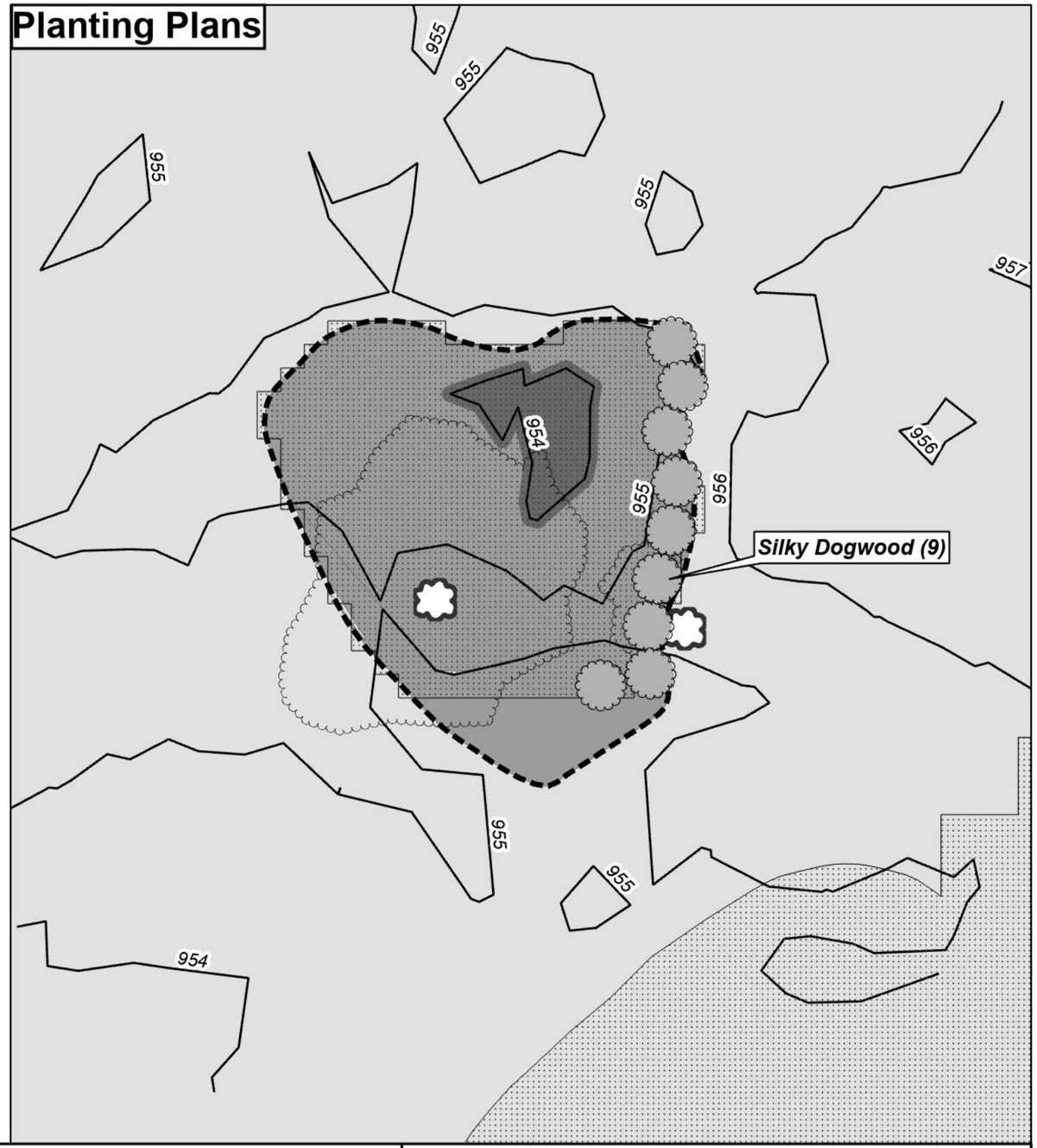
AECOM

Figure R3
Map Sheet 3 of 6

Existing Conditions



Planting Plans



Note:

- Wetland seed mix to be applied to all disturbed portions of the pool with bare soil.

Legend

- Canopy Cover
- 1-Foot Contour
- Deeply Flooded Pocket
- Existing Trees
- Pool Boundary
- Vernal Pool Remediation Areas
- Limits of Seasonal Flooding

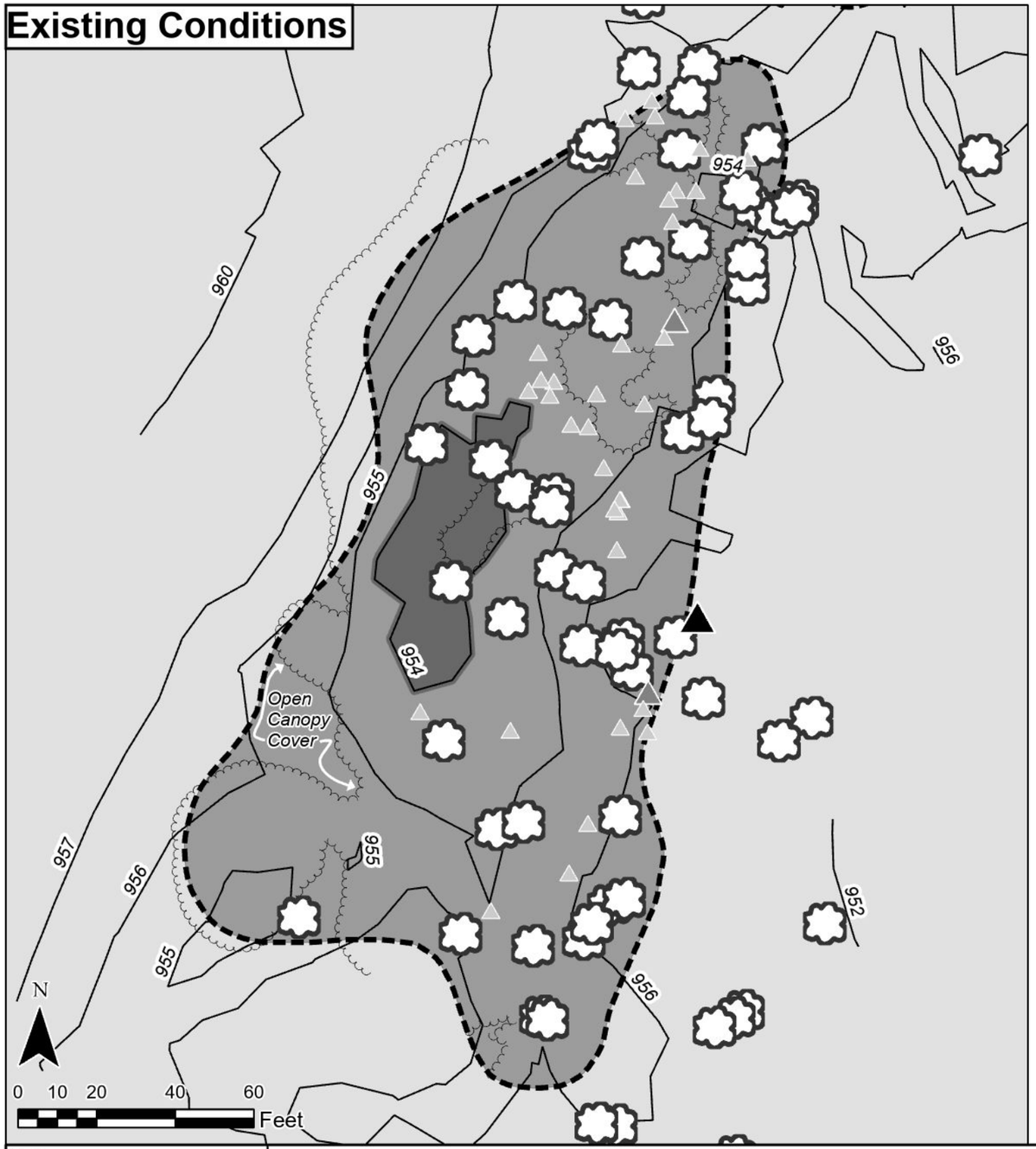
Existing Conditions & Planting Plan
5A-VP-52
Housatonic River - Pittsfield, MA

SCALE	DATE	PROJECT NO.
1:200	6/18/2025	60670015

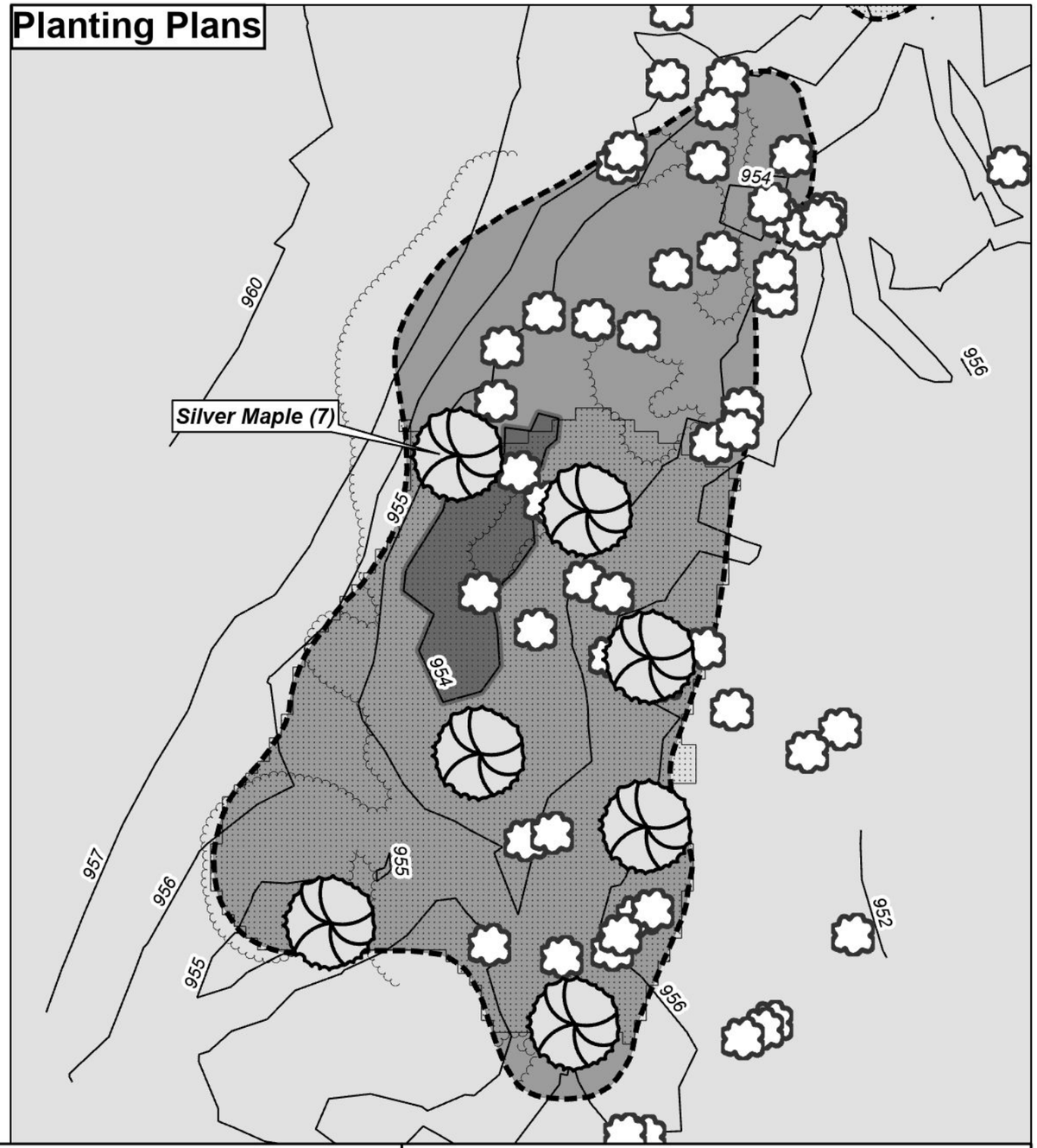
AECOM

Figure R4
Map Sheet 4 of 6

Existing Conditions



Planting Plans



Notes:

- Coarse woody debris to be replaced as directed by wetland scientist.
- Wetland seed mix to be applied to all disturbed portions of the pool with bare soil.

Legend

- Canopy Cover
- Pool Boundary
- 1-Foot Contour
- Vernal Pool Remediation Areas
- Deeply Flooded Pocket
- Limits of Seasonal Flooding
- Existing Trees

Existing Coarse Woody Debris

- <1-10 SF
- 11-20 SF
- 21-50 SF

Existing Conditions & Planting Plan
5A-VP-57
Housatonic River - Pittsfield, MA

SCALE	DATE	PROJECT NO.
1:400	6/18/2025	60670015

AECOM

Figure R5
Map Sheet 5 of 6

Table 1. New England Wetland Plants "WetMix"

Botanical Name	Common Name	Indicator
Carex vulpinoidea	Fox Sedge	OBL
Carex scoparia	Blunt Broom Sedge	FACW
Carex lurida	Lurid Sedge	OBL
Carex lupulina	Hop Sedge	OBL
Poa palustris	Fowl Bluegrass	FACW
Bidens frondosa	Beggar Ticks	FACW
Scirpus atrovirens	Green Bulrush	OBL
Asclepias incarnata	Swamp Milkweed	OBL
Carex crinita	Fringed Sedge	OBL
Vernonia noveboracensis	New York Ironweed	FACW
Juncus effusus	Soft Rush	FACW
Symphyotrichum lateriflorum	Starved/Calico Aster	FACW
Iris versicolor	Blue Flag	OBL
Glyceria grandis	American Mannagrass	OBL
Mimulus ringens	Monkey Flower	OBL
Eutrochium maculatum	Spotted Joe Pye Weed	OBL

Apply seed mix at the recommended rates:

1. New England WetMix to be applied at 1 pound per 2,500 square feet

Table 2. FACW Wetland Meadow Mix - ERNMX-122

Botanical Name	Common Name	Indicator
Carex vulpinoidea, PA Ecotype	Fox Sedge	OBL
Carex lurida, PA Ecotype	Lurid Sedge	OBL
Elymus virginicus, Madison-NY Ecotype	Virginia Wildrye	FACW
Juncus effusus	Soft Rush	OBL
Verbena hastata, PA Ecotype	Blue Vervain	FACW
Carex scoparia, PA Ecotype	Blunt Broom Sedge	FACW
Asclepias incarnata, PA Ecotype	Swamp Milkweed	OBL
Zizia aurea, PA Ecotype	Golden Alexanders	FAC
Glyceria striata, PA Ecotype	Fowl Mannagrass	OBL
Verbena urticifolia, PA Ecotype	White Vervain	FAC
Eupatorium perfoliatum, PA Ecotype	Boneset	FACW
Onoclea sensibilis	Sensitive Fern	FACW
Symphyotrichum puniceum, PA Ecotype	Purplestem Aster	OBL
Carex crinita, PA Ecotype	Fringed Sedge	OBL
Lobelia siphilitica, PA Ecotype	Great Blue Lobelia	FACW
Heliopsis helianthoides, PA Ecotype	Oxeye Sunflower	FACU
Mimulus ringens, PA Ecotype	Square Stemmed Monkeyflower	OBL
Scirpus cyperinus, PA Ecotype	Woolgrass	OBL
Solidago rugosa, PA Ecotype	Wrinkleleaf Goldenrod	FAC
Lycopus americanus, PA Ecotype	American Water Horehound	OBL

Apply seed mix at the recommended rates:

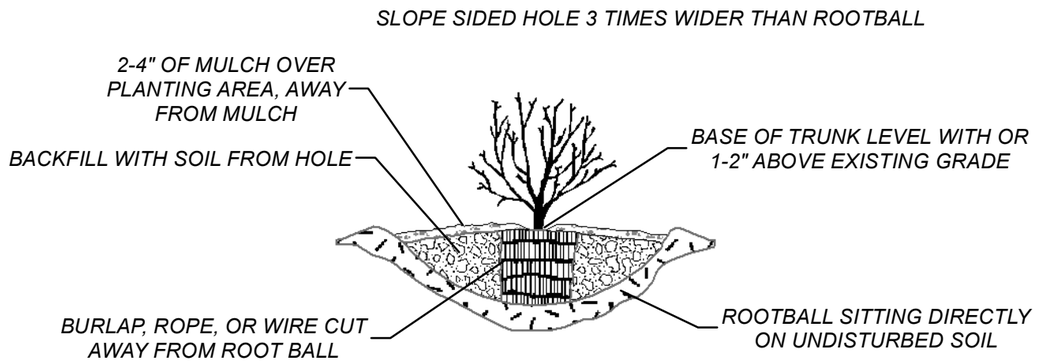
1. FACW Wetland Meadow Mix - ERNMX-122 to be applied at 20 pounds per acre, or 1/2 pound per 1,000 square feet.

Table 3. Proposed tree and shrub plantings in the restored vernal pools

Pool ID	Scientific Name	Common Name	Layer	Count
5A-VP-4	*Acer saccharinum*	Silver maple	Tree	2
	Cephalanthus occidentalis	Buttonbush	Shrub	13
	Ilex verticillata	Winterberry	Shrub	19
	Cornus amomum	Silky dogwood	Shrub	44
	Spirea alba	Meadowsweet	Shrub	7
	Vaccinium corymbosum	Highbush blueberry	Shrub	5
5A-VP-7	*Acer saccharinum*	Silver maple	Tree	1
	Cephalanthus occidentalis	Buttonbush	Shrub	19
	Ilex verticillata	Winterberry	Shrub	22
	Cornus amomum	Silky dogwood	Shrub	99
	Spirea alba	Meadowsweet	Shrub	14
5A-VP-16	*Ilex verticillata*	Winterberry	Shrub	2
	Cornus amomum	Silky dogwood	Shrub	7
5A-VP-52	*Cornus amomum*	Silky dogwood	Shrub	9
5A-VP-57	*Acer saccharinum*	Silver maple	Tree	7

1. All trees and shrubs shall not exceed a one-gallon container size or be planted at depths greater than 12 inches

See Section 32 30 00 – Restoration, Planting and Seeding Specifications located in Appendix F of the Final Revised Vernal Pool Pilot Study Work Plan.



PLANTING DETAIL 3
NOT TO SCALE

NO.	DATE	REVISIONS	BY	CHK	APP	APP

AECOM
AECOM Environment
250 Apollo Drive
Chelmsford, MA 01824

Planting and Construction Notes

Proposed Vernal Pool Restoration Plan
Reach 5A Pilot Study Pools
Pittsfield, Massachusetts

DATE: 6/18/2025

PROJ. NO.: 60605466

DRAWING NUMBER:
R6

SHEET NUMBER:
6 OF 6

Appendix F
Design Specifications

GE-Pittsfield/Housatonic River Site Vernal Pool Pilot Study

Section Number	Section Title
01571	Operations Environmental Restrictions and Controls
02 21 00	Surveys
02 51 00	Decontamination
02 72 00	Water Management
02 81 02	Transportation and Disposal of Waste Material
13 80 01	Temporary Access Roads and Staging Areas
13 90 01	Amendment Placement – Vernal Pools
31 05 13	Soils and Aggregates
31 11 00	Clearing and Grubbing
31 23 00	Excavation and Fill
31 25 00	Erosion and Sediment Controls
32 30 00	Restoration, Planting, and Seeding
35 20 24	Excavated Material Processing and Handling

PART 1 – GENERAL

1.01 DESCRIPTION

A. Scope:

1. This Section is applicable to Rest of River (ROR) construction Work that involves active remediation or handling of polychlorinated biphenyl (PCB)-containing materials. Section 01572 – Construction Environmental Restrictions and Controls addresses Work involving construction work that does not involve active remediation of handling of PCB-containing materials
2. The Contractor shall conduct all Work in compliance with the ROR Quality of Life (QOL) Standards established for air quality, noise, odor, and lighting. The QOL Standards were established in the U.S. Environmental Protection Agency (EPA)-approved Second Revised Quality of Life Compliance Plan (QOL Compliance Plan; Anchor QEA and Arcadis 2025[1]). The QOL Standards are listed below in Part 1.01.B.
3. The Contractor shall conduct all Work in compliance with the Surface Water Action Levels established in Section 3.9 of the Project Operations Plan (POP; Arcadis 2025[2]). The Surface Water Action Levels are listed below in Part 1.01.C.
4. The Contractor shall supply and maintain all labor, equipment, tools, methods, controls, materials, temporary construction, and mitigation measures necessary to ensure that all Work is compliant with the QOL Standards.
5. The Construction Manager, or a third party under the direction of the Construction Manager or the Owner, will perform monitoring to demonstrate compliance with the applicable QOL Standards and Surface Water Action Levels and as warranted in response to project-related complaints. Monitoring for compliance with the QOL Standards will be conducted in accordance with the QOL Compliance Plan and the POP, including Attachment D (Ambient Air Monitoring Plan) and Attachment G (Construction Monitoring Plan). Monitoring for compliance with the Surface Water Action Levels will be conducted in accordance with Section 3.9 of the POP. The Contractor may choose to conduct its own monitoring; however, the monitoring conducted by the third party shall form the basis for decisions regarding compliance with the QOL Standards and Surface Water Action Levels.
6. If any QOL Standards and Surface Water Action Levels are exceeded or a project-related complaint is received that requires corrective action, the

[1] Anchor QEA and Arcadis, 2025. *Second Revised Quality of Life Compliance Plan. Housatonic River – Rest of River.* Prepared for General Electric Company, Pittsfield, Massachusetts. May 2025

[2] Arcadis, 2025. *Project Operations Plan GE-Pittsfield/Housatonic River Site.* Prepared for the General Electric Company, Pittsfield, Massachusetts. May 2025.

Contractor will be notified by the Construction Manager, and the Contractor shall implement controls and any necessary mitigation measures to address the exceedance or complaint. If such an exceedance or complaint occurs, the Contractor shall assist the Construction Manager in investigating the cause of the exceedance and determining any additional engineering or operational controls needed.

B. QOL Standards

1. Air Quality QOL Standards
   a. Air Quality QOL Standard for Particulate Matter
      1) The QOL Standard for Particulate Matter applies to particulates smaller than 10 micrometers in diameter (PM_{10}) and includes both a Notification Level and an Action Level.
      2) PM_{10} Notification Level: 10-hour average PM_{10} concentration of 120 micrograms per cubic meter ($\mu g/m^3$)
      3) PM_{10} Action Level: 10-hour average PM_{10} concentration of 150 $\mu g/m^3$
      4) Compliance with the QOL Standard for Particulate Matter will be determined based on PM_{10} monitoring by the Construction Manager or a third party in accordance with the QOL Compliance Plan, Ambient Air Monitoring Plan (Attachment D of the POP), and Construction Monitoring Plan (Attachment G of the POP). PM_{10} monitoring will occur for a minimum of 10 hours when construction is ongoing and throughout the duration of construction activities. If the duration of construction activities on a particular day is longer than 10 hours, the data collected over the full monitoring period will be averaged and compared to the PM_{10} Notification Level and Action Level.
      5) If the workday average PM_{10} Notification Level is exceeded at any time, the Contractor shall implement additional engineering or operational controls, as necessary, to reduce dust generation and prevent a PM_{10} Action Level exceedance from occurring.
      6) If the workday average PM_{10} Action Level is exceeded at any time, the Contractor shall implement additional engineering or operational controls, as necessary, to reduce dust generation and prevent another exceedance of the PM_{10} Action Level.
      7) If the workday average PM_{10} Action Level is exceeded on two consecutive days, the Contractor shall temporarily stop dust-generating Work, if directed to do so by the Construction Manager, in the vicinity of the location where the exceedance was observed. The stop-work requirement will continue until directed by the Construction Manager based on EPA approval of appropriate response actions to prevent another exceedance of the Action Level from occurring.
   b. Air Quality QOL Standard for PCBs
      1) The QOL standard for PCBs includes both a Notification Level and an Action Level for total PCB concentrations.

2) The PCB Notification Level is 0.05 microgram per cubic meter ($\mu g/m^3$) based on a 24-hour average.
3) The PCB Action Level is 0.1 $\mu g/m^3$ based on a 24-hour average.
4) Compliance with the QOL Standard for PCBs will be determined based on PCB air monitoring by the Construction Manager or a third party in accordance with the QOL Compliance Plan, Ambient Air Monitoring Plan (Attachment D of the POP), and Construction Monitoring Plan (Attachment G of the POP).
5) During construction, PCB monitoring will initially be performed in the vicinity of potential sources of PCB emissions for two sequential 24-hour periods (i.e., two back-to-back daily events) at the start of each new type of construction activity in each construction season to confirm that representative airborne concentrations for PCBs do not exceed the designated standards.
6) If the initial PCB monitoring indicates that air PCB levels are acceptable, one 24-hour monitoring event will then be conducted weekly for each area of active construction for the duration of that construction activity. In addition, monitoring will be reinstituted when a new type of remediation activity occurs in an area.
7) If the 24-hour average PCB concentration exceeds the PCB Notification Level, additional response actions will be implemented, in consultation with EPA, to prevent exceedances of the Action Level. The actions to be considered in such circumstances include the types of measures described in Section 4.3.4 of the QOL Compliance Plan.
8) If the 24-hour average PCB concentration exceeds the PCB Action Level, the Contractor shall temporarily stop PCB-generating Work, if directed to do so by the Construction Manager, in the vicinity of the location where the exceedance was observed. The stop-work requirement will continue until directed by the Construction Manager based on EPA approval of appropriate response actions to prevent another exceedance of the Action Level from occurring.

c. Air Quality QOL Standard for Visible Dust
1) The QOL Standard for Visible Dust is to mitigate project-related visible dust from leaving the Work area.
2) The Construction Manager will investigate, with assistance by the Contractor, the cause of visible dust if observed leaving the Work area. If warranted, the Construction Manager will notify the Contractor if corrective action is required to address observations of visible dust.

2. Noise QOL Standards
a. The primary objective of the Noise QOL Standards is to limit potential impacts of noise generated by the project on the surrounding communities.
b. For residential areas, separate Noise QOL Standards were established for daytime and nighttime periods, and the residential daytime noise standard

includes both a Notification Level and an Action Level. The residential nighttime noise standard and non-residential noise standard (applicable any time of day) are both Action Levels.

c. The Noise QOL Standards are listed on the table below. All sound levels are presented in decibels on an A-weighted scale (dBA).

Type	Numerical Standard (Maximum Hourly Average)
Notification Level: Residential Daytime (7:00 a.m. to 9:00 p.m.)	75 dBA
Action Level: Residential Daytime (7:00 a.m. to 9:00 p.m.)	80 dBA
Action Level: Residential Nighttime (9:00 p.m. to 7:00 a.m.)	65 dBA
Action Level: Non-Residential (Day or Night)	80 dBA

d. When nighttime work occurs in an area adjacent to both residential and non-residential receptors, the residential nighttime noise standard will apply.

e. Compliance with the Noise QOL Standards will be determined based on noise monitoring conducted by the Construction Manager or a third party in accordance with the QOL Compliance Plan and the Construction Monitoring Plan (Attachment G of the POP).

3. Odor QOL Standard

a. The primary objective of the odor QOL standard is to protect the surrounding communities from nuisance odors that unreasonably interfere with the comfortable enjoyment of life and property or the conduct of business.

b. For general odors, the Odor QOL Standard is to mitigate the presence of uncomfortable project-related odors identified by project workers, the Owner, EPA, or via an odor complaint from the public. The standard will be considered to not be met if uncomfortable project-related odors are identified frequently and recurrently or if such objectionable odors are not mitigated in a timely manner.

c. For hydrogen sulfide (H_2S) odors, a numerical QOL Standard is triggered in the event that a complaint or report is received from a worker, the public, or EPA that is related to the distinct rotten-egg smell of H_2S.

d. The numerical Odor QOL Standard for H_2S is a 1-hour average concentration of 0.01 part per million (ppm; 14 $\mu g/m^3$).

e. Compliance with the numerical Odor QOL Standard for H_2S will be determined based on monitoring by the Construction Manager or a third party

in accordance with the QOL Compliance Plan and Construction Monitoring Plan (Attachment G of the POP).

4. Lighting QOL Standard
   a. The Lighting QOL Standard is to mitigate nuisance project-related lighting impacts based on any complaints from nearby receptors.
   b. The Lighting QOL Standard will be considered to be not met if frequent, recurrent lighting complaints related to project activities occur or if project-related nuisance lighting impacts are not mitigated in a timely manner.
   c. The Lighting QOL Standard does not supersede worker health and safety lighting requirements established by the Occupational Safety and Health Administration (OSHA) and U.S. Coast Guard (USCG), where applicable.

C. Surface Water Action Levels
   a. Turbidity Action Level
      1) Turbidity Action Level:

$$\text{Turbidity}_{\text{Downstream}} > \text{Turbidity}_{\text{Upstream}} + 50 \text{ NTU}$$

      2) Compliance with the Turbidity Action Level will be determined based on turbidity monitoring within the river by the Construction Manager or a third party in accordance with the Construction Monitoring Plan (Attachment G of the POP). For each active work area in the river, two continuous turbidity monitors will likely be deployed, one upstream of the active work area and one downstream of the active work area (and downstream of erosion and sedimentation control measures, such as turbidity curtains). At each monitoring location, turbidity will be monitored in real time and reported in nephelometric turbidity units (NTU). Turbidity levels will be logged a minimum of every 15 minutes and downloaded and reviewed at least once per day to assess potential changes in water column turbidity.
      3) In the event that any of the 15-minute readings recorded at the downstream location exceeds the above Turbidity Action Level, a number of site assessment activities will be initiated under the direction of the Construction Manager or the Owner, including, but not limited to, the following:
         a) Review of the ongoing removal and/or other construction activities and the potential need for modification of the condition or performance of the existing erosion and sedimentation control measures
         b) Continued monitoring at the downstream location to determine whether the exceedance was an anomaly or whether the elevated reading was a short-duration event.
      4) If it is determined that the Turbidity Action Level exceedance was not an anomaly or short-duration event (e.g., if an exceedance is observed for two

or more consecutive 15-minute readings), evaluative water column samples will be collected at both the upstream and downstream locations for analysis of total PCBs and total suspended solids (TSS). The resulting data will be compared to the upstream and downstream turbidity data to assess whether the elevated downstream turbidity reading is also reflected in the PCB and TSS data. This additional, evaluative water column sampling will be continued daily until the Turbidity Action Level is no longer exceeded.

5) If these assessment activities indicate that the elevated downstream turbidity reading reflects a water quality impact that could persist or recur and that it is related to the removal or other construction activities, the Construction Manager will direct the Contractor to modify construction activities to the extent feasible and/or to implement additional controls. These measures shall remain in place until compliance with the Turbidity Action Level is achieved and until directed by the Construction Manager.

b. PCB Action Levels

1) The PCB sampling data will be reviewed during construction to assess potential impacts to the water column within the river. Upstream and downstream PCB data collected from within the river will be compared with the following PCB action level:

$$PCBs_{Downstream} > PCBs_{Upstream} + 5 \text{ micrograms per liter } (\mu g/L)$$

2) Compliance with the PCB Action Level will be determined based on water sampling within the river by the Construction Manager or a third party in accordance with the Construction Monitoring Plan (Attachment G of the POP). The water samples will be analyzed for PCB congeners and TSS.

3) In the event that the PCB Action Level is exceeded, a number of site assessment activities will be initiated under the direction of the Construction Manager or the Owner, including, but not limited to, the following:
   a) Review of the ongoing removal activities and the potential need for modification of the condition or performance of the existing control measures; and/or
   b) Collection of additional, evaluative water column samples from various locations within or adjacent to the removal area in an effort to identify the potential source(s) of the elevated PCB result.

4) If these assessment activities indicate that the elevated downstream PCB result reflects a water quality impact that could persist or recur and that it is related to removal activities, the Construction Manager will direct the Contractor to modify the construction activities to the extent feasible and/or to implement additional response measures. These measures shall remain in place until compliance with the PCB Action Level is achieved and until directed by the Construction Manager.

c. Surface Water Visual Observation
   1) The Contractor and other project personnel will visually observe the water surface for the presence of turbidity and/or sheens during in-water construction activities (i.e., intrusive remediation activities in the river and along the riverbanks, including sediment removal and riverbank soil removal, and intrusive remediation activities in backwaters or any other waterbody with a hydraulic connection to the Housatonic River).
   2) If water quality impacts are observed, the observer will notify the Construction Manager and the Owner, and turbidity monitoring data will be reviewed.
   3) The Owner will make any notifications required by law. In addition, if a visible sheen is observed to be generated during remediation activities, the Owner will notify EPA. If EPA issues a stop-work order after such a notification, the Construction Manager will direct the Contractor to implement corrective actions to mitigate the observed conditions. The correction actions shall remain in place until directed by the Construction Manager.

D. References

1. Second Revised Quality of Life Compliance Plan (Anchor QEA and Arcadis 2025)
2. Project Operations Plan (Arcadis 2025), including Ambient Air Monitoring Plan (Attachment D) and Construction Monitoring Plan (Attachment G)
3. 29 *Code of Federal Regulations* (CFR) 1926.52

1.02 SUBMITTALS

A. Pre-Construction

1. The following plans may be submitted separately or as part of the Contractor's Operations Plan.
2. Submit a Dust and PCB Emissions Control Plan that, at a minimum, includes: a description of routine control measures, methods, and best management practices (BMPs) that will be implemented by the Contractor during each phase of the Work to control on-site dust and PCB emissions generation and migration from Work areas and to prevent an exceedance of the Air Quality QOL Standards; identification of the water source(s) to be used by the Contractor for dust suppression and control; a contingency plan that details the procedures, additional controls, and mitigation measures that will be followed if there is an exceedance of the PM_{10} Notification Level, PM_{10} Action Level, PCB Notification Level, PCB Action Level or QOL Standard for Visible Dust; and a description of any air quality sampling or monitoring that the Contractor will perform at its own discretion.

3. Submit a Noise Control Plan that, at a minimum, includes: a description of routine control measures, methods, and BMPs that will be implemented by the Contractor during each phase of the Work to prevent an exceedance of the Noise QOL Standards and nuisance to neighboring properties; specific controls, methods, and mitigation measures that will be employed to control or reduce noise during sheet-pile installation (if applicable); an inventory of noise levels for noise-generating equipment that will be used by the Contractor during the Work; a contingency plan that details the procedures, additional controls, and mitigation measures that will be followed if there is an exceedance of the Noise QOL Standards or if a noise complaint is received that is determined by the Construction Manager to require mitigation; and a detailed description of noise monitoring that will be performed by the Contractor, including the monitoring equipment, procedures, frequency, and locations.
4. Submit an Odor Control Plan that, at a minimum, includes: a description of routine control measures, methods, and BMPs that will be implemented by the Contractor during each phase of the Work to mitigate and minimize odor emissions into the air during the Work as necessary to maintain compliance with the Odor QOL Standard; specific controls, methods, and mitigation measures that will be employed to control or reduce odors during management of sediments and decaying organic matter (e.g., aquatic plants and other organisms), if applicable; a contingency plan that details the procedures, additional controls, and mitigation measures that will be followed if there is an exceedance of Odor QOL Standard or if an odor complaint is received that is determined by the Construction Manager to require mitigation; and a description of any sampling or monitoring that the Contractor will perform at its own discretion.
5. Submit a Lighting Control that, at a minimum, includes: the types and locations of lighting to be used by the Contractor along with the energy sources to power the lighting; a description of routine control measures, methods, mitigation measures, and BMPs that will be implemented by the Contractor during each phase of the Work to prevent an exceedance of the Lighting QOL Standard and nuisance to neighboring properties, to minimize impacts from lights to neighboring properties, and to protect against potential light impacts on traffic safety; a contingency plan in the event of power outages or if certain lights fail to operate; and a contingency plan if the Lighting QOL Standard is exceeded, including potential contingency response actions and mitigation measures.
6. Submit a Turbidity/Sheen Control Plan that, at a minimum, includes: a description of the methods that will be implemented by the Contractor to comply with the water quality requirements; proposed methods and equipment to be used for turbidity control; proposed manufacturer's specification sheets detailing any material and equipment to be used for any turbidity control systems; proposed plan for performing visual inspections of the water surface for turbidity and sheens; proposed maintenance plan to ensure adequate performance of any turbidity control systems; a description of response actions

and procedures to be implemented in the event that sheens are observed during active construction operations, including the equipment, materials, and procedures that will be used and procedures for the management, storage, and disposal of materials used for sheen containment and control; and a contingency plan if any Surface Water Action Levels are exceeded and require corrective action or if a surface water visual observation requires corrective action, including potential contingency response actions and mitigation measures to be implemented in the event of an exceedance.

7. Submit manufacturer's product data, specifications, storage requirements, and application instructions for any proposed dust, PCB emissions, and/or odor mitigation agents.
8. Submit shop drawings, material data, and other applicable details for any structures, barriers, or enclosures identified to control noise (e.g., temporary noise barriers, acoustic barrier enclosures, or other noise suppression devices).

B. During Construction and Operations

1. Submit the results for any monitoring conducted by the Contractor in a format acceptable to the Construction Manager.
2. Submit Corrective Action Reports within 24 hours of notification by the Construction Manager for any exceedance of a QOL Standard, Surface Water Action Level, or for any project-related complaint that requires corrective action. Corrective Action Reports shall include a description of the exceedance or complaint, causes of the exceedance or complaint, and actions taken or to be taken to mitigate the exceedance or complaint and to prevent the incident from recurring.

PART 2 – PRODUCTS

2.01 DUST AND PCB EMISSIONS CONTROLS

A. Clean, potable water.

B. Mitigation agents selected by the Contractor to control site-specific dust and PCB emissions generated during the Work. Specific dust mitigation agents shall be identified by the Contractor in the Dust Control Plan and in any Corrective Action Reports.

C. Application measures and equipment applicable for water and any other selected dust mitigation agents, including for proper mixing, storage, and application.

2.02 NOISE CONTROLS

A. Noise monitoring equipment.

B. Engineering controls (e.g., temporary noise barriers, acoustic barrier enclosures, mufflers, or other noise suppression devices) for use as necessary.

C. Specific noise control measures shall be identified by the Contractor in the Noise Control Plan and in any Corrective Action Reports.

2.03 ODOR CONTROLS

A. Mitigation agents selected by the Contractor to control site-specific odors generated during the Work. Specific odor mitigation agents shall be identified by the Contractor in the Odor Control Plan and in any Corrective Action Reports.

B. Odor mitigation agents may include but are not limited to: BioSolve® Pinkwater (by The BioSolve Company), Atmos Shield 645 (AC-645) Foam Concentrate (by Atmos Technologies), or ConCover 180 spray-on cover (by New Waste Concepts, Inc.).

C. Application measures and equipment applicable for selected odor mitigation agents, including for proper mixing, storage, and application.

2.04 LIGHTING CONTROLS

A. Engineering controls (e.g., light shrouds, temporary light barriers, or other light control devices) for use as necessary

B. Specific lighting control measures shall be identified by the Contractor in the Light Control Plan and in any Corrective Action Reports.

2.05 SURFACE WATER CONTROLS

A. Sorbent booms and pads

B. Specific turbidity control measures shall be identified by the Contractor in the Turbidity/Sheen Control Plan and in any Corrective Action Reports.

PART 3 – EXECUTION

3.01 GENERAL

A. If a QOL Standard or Surface Water Action Level is exceeded or a project-related complaint is received that requires corrective action, the Contractor will be notified by the Construction Manager. In the event of an exceedance or a project-related complaint that requires corrective action, the Contractor shall:

1. Assist the Construction Manager in the investigation and evaluation of the cause of the exceedance or complaint and the need for additional and modified engineering or operational controls.
2. Document the project and non-project events that were occurring at the time and location of the exceedance or complaint.
3. Submit a Corrective Action Report describing the exceedance or complaint, causes of the exceedance or complaint, and actions taken to mitigate the exceedance or complaint and to prevent the incident from recurring.
4. Implement additional or modified engineering controls, operational controls, or other mitigation measures, as appropriate, to address such exceedance and prevent another exceedance from occurring.

B. If the Contractor receives a complaint related to dust, odor, noise, or light, the Construction Manager shall be notified immediately.

3.02 DUST AND PCB EMISSIONS CONTROL

A. The Contractor shall implement appropriate methods, engineering controls, operational controls, or other mitigation measures, as needed, to conduct Work in compliance with the QOL Standards for Particulate Matter, PCBs, and Visible Dust listed in Part 1.01.B, and to prevent dust from becoming a nuisance to nearby properties.

B. Provide positive means to prevent airborne dust and PCB emissions from dispersing into the atmosphere. Use only potable water when a water misting system is to be used for dust and particulate control.

C. Water applications shall be applied as frequently as required without creating nuisances such as excessive mud and ponding of water.

D. Do not use chemical means for dust, PCB emissions, or particulate control without the Construction Manager's prior approval.

E. Employ construction methods, routine control measures, and BMPs throughout the duration of the Work, including during nonworking periods, to control on-site dust and PCB generation and dust particulate matter migration from Work areas during each phase of the Work. Construction methods, control measures, and BMPs to control dust and PCB emissions may include, but are not limited to:

1. Removing, placing, handling, loading, and unloading soils and materials using methods that minimize the generation of and PCB emissions.
2. Applying water to control the generation of airborne and PCB emissions.
3. Applying a temporary cover on exposed soil or material stockpiles.
4. Using temporary vegetative cover on disturbed soil areas, where appropriate.

5. Controlling the speed of construction vehicles.
6. Using covers on trucks hauling fine or dusty material.
7. Preventing tracking of soils onto haul routes.
8. Modifying haul routes or surfaces to control and reduce dust generation.
9. Assessing wind conditions to determine if construction methods or operational controls warrant modification to control and PCB emissions generation.

F. Apply water to haul routes, open excavations, soil-covered areas, material staging piles, and loading and unloading areas as needed during Work activities, as needed during nonworking periods, and if requested by the Construction Manager to minimize dust and PCB emissions generation.

G. Ensure that potential dust-generating and PCB-generating areas are thoroughly wetted at the end of each working day, unless precipitation is occurring, to prevent the generation of dust during nonworking periods. Apply mulch, wetting, or other methods approved by the Construction Manager prior to long Work stoppages to prevent the generation of dust and PCB emissions during nonworking periods.

H. The Construction Manager may stop Work at any time if the Contractor's control measures are inadequate for the wind conditions or if the Contractor's control measures are not sufficient for controlling the release of Work-related dust, PCB emissions, or particulates. Any stop-work order shall remain in effect until directed by the Construction Manager.

3.03 NOISE CONTROL

A. The Contractor's activities shall minimize noise emissions to greatest degree practicable.

B. The Contractor shall provide all equipment, controls, and mitigation measures to conduct Work in compliance with the Noise QOL Standards in Part 1.01.B and to minimize nuisance to adjacent properties.

C. The Contractor shall comply with OSHA regulations related to occupational noise exposure (29 CFR 1926.52).

D. The Contractor shall obtain written approval from the Owner prior to performing noise-generating Work between 9:00 p.m. and 7:00 a.m. or on weekends or state or federal holidays, except in the case of emergencies (in which case the Owner and Construction Manager shall be notified of such Work as soon as practicable).

E. When Work is performed during overnight hours (i.e., between 9:00 p.m. and 7:00 a.m.) near residential receptors, activities that generate or have the potential to generate loud or disruptive noise shall be minimized to the extent practicable, except where necessary to

address an emergency condition. Loud equipment operation, sheet-pile driving, and stone material handling shall not be conducted when working near residential receptors during overnight hours.

F. Use properly muffled equipment and conduct routine preventive maintenance on equipment and exhaust systems to minimize the noise generated by the Contractor's equipment and to reduce the potential for exceedance of the Noise QOL Standards or nuisance to neighboring properties.

G. Employ proactive construction methods, routine control measures, and BMPs throughout the duration of the Work, including during nonworking periods, to control noise during each phase of the Work. Construction methods, control measures, and BMPs to control noise may include, but are not limited to, the following:

1. Using shrouds, barriers, or other sound-attenuating walls around stationary equipment (e.g., generators and pumps) or between noise sources and receptors.
2. Scheduling the Work to minimize or avoid equipment use that might result in prolonged or excessive elevated noise levels during early morning or overnight hours
3. Controlling the speed at which equipment is operated
4. Using broadband/white noise backup alarms on construction equipment that frequently operate in reverse (e.g., front-end loaders and dump trucks)
5. Using electric- or battery-powered vehicles or equipment, where practicable.

H. The Contractor shall perform noise monitoring near equipment that generates noise to verify that the specifications are satisfied. Monitoring shall be conducted daily at each operation for the first 2 weeks of Work. After the initial 2 weeks of monitoring, the Contractor shall conduct monitoring at least once per week at each operation or for any changes in equipment, procedures, or conditions. Should noise monitoring by the Contractor suggest a potential for an exceedance of the specification requirements, the Contractor shall immediately inform the Construction Manager. Submit all noise monitoring data in a format acceptable to the Construction Manager.

I. If the Construction Manager notifies the Contractor that any of the Noise QOL Standards were exceeded or that a complaint has been received that requires corrective action, the Contractor shall implement operational controls, engineering controls, or other sound mitigation measures as quickly as possible but no longer than 4 hours after notice by the Construction Manager.

3.04 ODOR CONTROL

A. The Contractor shall implement appropriate methods, engineering controls, operational controls, or other mitigation measures, as needed, to conduct Work in compliance with

the Odor QOL Standard listed in Part 1.01.B and to minimize nuisance to adjacent properties.

B. The Contractor must proactively employ odor controls during the Work and evaluate and modify construction techniques and site management practices, as necessary and appropriate, to control objectionable odors caused by the Work, the Contractor's operation of vehicles and equipment, and other actions.

C. The Construction Manager may stop Work at any time if the Contractor's control measures are not sufficient for controlling Work-related odors as specified in this Section. Any stop-work order shall remain in effect until directed by the Construction Manager.

3.05 LIGHTING CONTROL

A. The Contractor shall provide all equipment, controls, and mitigation measures to conduct Work in compliance with the Lighting QOL Standard in Part 1.01.B and to minimize nuisance to adjacent properties.

B. Lighting shall be maintained such that it is not a nuisance to the neighboring properties or the community.

C. All Work shall be conducted in compliance with regulations set by the OSHA and the USCG, where applicable. The Lighting QOL Standard shall not supersede lighting requirements established by OSHA or USCG.

D. The Contractor shall supply sufficient lighting to Work areas to provide safe conditions during low-light and nighttime operations.

E. Fixed lighting shall be installed where necessary for safe illumination of frequent access areas, such as walkways, temporary office facilities, and equipment staging areas.

F. Lighting shall be directed toward Work areas and away from adjacent properties.

G. Measures shall be implemented to protect against potential lighting impacts on traffic safety on public or private roadways.

H. The Contractor shall employ routine control measures and BMPs to minimize or limit potential off-site nuisance impacts generated by lighting. Routine control measures and BMPs may include, but are not limited to, proper positioning of lights, proper setting of beam direction, adjusting the brightness of lights, limiting the heights of light masts, and shielding.

I. The Contractor shall provide engineering controls (e.g., light shrouds, balloon lights, temporary light barriers, or other light-control devices) for use, as necessary, to minimize impacts from lights to neighboring properties.

3.06 WATER QUALITY CONTROL

A. The Contractor shall implement appropriate methods, engineering controls, operational controls, or other mitigation measures, as needed, to conduct Work in compliance with the Surface Water Action Levels specified in Part 1.01.C.

B. The Contractor shall employ routine control measures and BMPs to minimize or limit potential releases to the water column.

C. The Contractor shall furnish, install, deploy, inspect, relocate, and maintain any turbidity control systems in accordance with the manufacturer's recommended procedures, consistent with the layout and design provided with the Contractor's Turbidity/Sheen Control Plan and to the satisfaction of the Construction Manager.

D. The Construction Manager reserves the right to suspend Work at any time as necessary if there is a water quality concern that may cause contamination of adjacent areas.

3.07 SHEEN RESPOSNE AND CONTROL

A. The Contractor shall have a vessel and crew for monitoring and deploying oil sheen control and oil sorbent booms and pads to address observed oil sheens at the direction of the Construction Manager.

B. At all times, the Contractor shall have sufficient sheen response personnel, booms, sorbents, vessels, and all other necessary equipment and materials on site to respond to oil sheens in accordance with this Specification. When oil sheens are present, the response crews shall be actively engaged in sheen control actions. Sheen response personnel may perform other activities when sheen response activities are not required but shall be available at the Project Site to respond quickly if sheens are observed, and they shall be dedicated to sheen response activities while sheens are present.

C. The Contractor shall monitor the water surface for the presence of oil sheens using available vantage points from ongoing Work to inspect for the presence of oil sheens and identify their development, location, appearance, drift direction, and rate of movement.

D. If the Contractor observes one or more oil sheens on the water surface, the Contractor shall immediately notify the Construction Manager. The Construction Manager will also monitor for the presence of oil sheens and will notify the Contractor if any oil sheen is observed.

E. If one or more oil sheens are observed on the water surface by the Contractor or the Construction Manager, the Contractor shall, at a minimum, implement the following responses:

   1. The Contractor shall deploy and maintain oil containment booms, oil sorbent booms, and oil sorbent materials to intercept and control the sheen. The oil

sorbent booms and oil sorbent materials shall be deployed, adjusted, and maintained in a configuration that will allow continued in-water Work within the contained area. The oil sorbent boom and oil sorbent material shall extend for the same length as the oil containment boom and shall be located on the side of the oil containment boom closest to the operation. The ends of oil containment boom(s), oil sorbent booms, and oil sorbent materials shall be secured or otherwise connected in a manner that provides continuous coverage where deployed but does not adversely impact or hinder the construction operation.

2. Once sheens are observed and the oil containment boom(s) and oil sorbent materials are deployed, the Contractor shall visually inspect and verify the condition and effectiveness of the position of the deployed booms and oil sorbent materials at least once every hour. The Contractor shall adjust the boom(s) and oil sorbent materials so as to maximize the potential to oil containment oil sheens.
3. The Contractor shall sweep areas where oil sheens are observed with oil sorbent material if necessary to minimize the escape of sheens downstream.
4. If oil sheens are observed to have collected behind the oil containment boom(s) or other stationary locations, the Contractor shall actively collect the sheens and any other floating debris in contact with the sheen.
5. The Contractor shall perform maintenance of all deployed oil containment booms and oil sorbent materials at least once per shift, including, but not limited to, removing any trapped floating material and sheens along the boom system; and replacing ineffective, oil-laden, or worn sorbents to ensure that oil containment booms and sorbent materials function as intended. Sorbent materials shall be replaced following the requirements of this Specification, every 5 days of continuous deployment, or at the request of the Construction Manager, whichever occurs first.
6. When deployed, oil sorbent booms and oil sorbent materials shall remain in place at all times, except as necessary to allow vessels or equipment access. Prior to opening or removing oil sorbent booms and oil sorbent materials, the Contractor shall visually inspect the opening for the presence of sheens.
7. If sheens are observed, sweep or actively collect the sheens prior to opening the booms. If the materials must be moved to facilitate access, the time period when the oil sorbent booms and oil sorbent materials are open shall be kept to an absolute minimum and be closed immediately after the vessel(s) passes.
8. If no oil sheens have been observed within 48 hours of performing an oil sheen response, the Contractor may suspend the use of oil containment booms and oil sorbent materials. The oil sorbent booms and oil sorbent materials shall be redeployed immediately in accordance with this Specification if oil sheens are observed in that location.

F. All used sorbent materials, sorbent booms, and other materials generated during the collection, control, and containment of sheens shall be removed for proper disposal by the Contractor.

END OF SECTION

PART 1 – GENERAL

1.01 DESCRIPTION

A. Scope

1. The Contractor shall provide survey control sufficient for verifying existing grades, excavation and treatment horizontal limits, post-excavation depths and elevations, and final (restored) elevations and to document the performance of the work to the satisfaction of the Construction Manager as specified herein.
2. The Contractor shall employ or subcontract a licensed Professional Land Surveyor to provide the surveying functions necessary for the proper construction and documentation of the work. All survey-related work products shall be sealed and signed by a registered Massachusetts Professional Engineer or Licensed Surveyor. All references to the Contractor herein include the Surveyor.
3. Horizontal Datum is based on North American Datum of 1983 (NAD83). Vertical Datum is based upon North American Vertical Datum (NAVD88).
4. Survey control for construction and documentation purposes shall be the responsibility of the Contractor. The Contractor shall safeguard all survey points and benchmarks.
5. The Contractor shall furnish and/or provide all supervision, labor, tools, materials, equipment, services, and appurtenances necessary for, or incidental to, completing all work necessary for performing the surveying activities described herein and preparing required as-built survey data and drawings of pre-construction, interim, and post-construction grades.

B. Related Sections

1. Section 13 80 01 – Temporary Access Roads and Staging Areas
2. Section 13 90 01 – Amendment Placement – Vernal Pools
3. Section 31 23 00 – Excavation and Fill

1.02 APPLICABLE CODES, STANDARDS, AND SPECIFICATIONS (NOT USED)

1.03 SUBMITTALS

A. Prepare and submit a Survey Plan as part of the Contractor's Operations Plan for review and approval by the Construction Manager prior to the start of any survey-related field work. The Plan shall include the following:

1. Name, address, telephone number, and qualifications, including licensure and/or certification, of the Surveyor, crew chief, superintendent, and all other persons proposed to perform surveys or survey related activities

2. Survey equipment, methods, and procedures
3. Figures showing the survey grid points per the spacing required herein
4. Survey schedules and crew
5. All milestone and other field survey activities for the project
6. A listing of the control points to be used during survey operations
7. A description of recordkeeping procedures during surveying
8. A proposed survey deliverable format, including example electronic files

B. Survey Data Records

1. The Contractor shall furnish the Construction Manager with copies of project field notes, computations, any records relating to the layout of the work, and information on any computer software required to interpret the finished data and records for review and approval prior to the final progress payment. The Owner and Construction Manager will use them as necessary to verify completion of the project work prior to submittal of the final payment. The Contractor shall retain copies of all such material furnished to the Construction Manager.
2. Survey data shall be provided in x, y, z, d (easting, northing, elevation, description) format. Each data file shall include a descriptive header including, but not limited to, software and equipment information, project name and client, horizontal and vertical datums, units, survey type, alignment, and stations surveyed.
3. The Contractor shall maintain a complete, accurate log of survey work as it progresses at the Site.
4. The accuracy of the Contractor's survey and other furnishing of data to the Construction Manager do not constitute a transfer of responsibility for verifying accuracy.

C. As-Built Drawings. Upon completion of major phases of Work, the Contractor shall submit a copy of the associated survey drawing with relevant as-built data in a format compatible with AutoCAD Civil 3D 2023 and in PDF. At a minimum, the as-built drawings shall include the following information:

1. Surveyed elevations of the grid points specified in Part 3.01.D of pre-construction, constructed final excavation, and post-backfill elevations.
2. General site conditions, including access roads, drainage features (basins, culverts, and stormwater management areas), berms, fences and gates, buildings, tanks, and manholes.

1.04 PERFORMANCE CRITERIA/QUALITY ASSURANCE

A. The Contractor shall have a minimum of 5 years' experience completing the type of work specified herein.

B. All survey data acquisition, layout, and related work shall be performed and signed by a licensed Surveyor.

C. The Contractor shall conduct and document the quality control procedures recommended by the survey equipment manufacturer for the equipment used.

D. Surveying shall be conducted to meet the requirements specified herein; including, but not limited to, documenting the completed construction work with accuracy sufficient to allow for evaluation and confirmation the project work is being completed in conformance with the Contract Documents.

E. When applicable, the Contractor shall regularly resurvey benchmarks for comparison with original elevations and positions. Where the Contractor uses a laser for control, the Contractor shall periodically check the grade and alignment during each day's operation. The Contractor shall promptly notify the Construction Manager if changes in elevations or positions occur to be reviewed for consistency with the Design Drawings.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.01 GENERAL

A. The Contractor shall exercise care during the execution of the work activities specified herein to minimize any disturbance to existing property and to the landscape and waters in the areas surrounding the work areas. Survey crews shall not traverse into controlled areas or private property without first obtaining approval by the Construction Manager.

B. The Contractor shall reference survey points to the provided survey control points and record all survey locations, with horizontal and vertical data, on project record documents.

C. Survey controls shall be established at the start of the work and maintained throughout the construction activities. The Construction Manager or Engineer will provide survey benchmarks so that the Contractor's licensed Surveyor can establish appropriate horizontal and vertical control consistent with the existing survey data.

D. Prior to construction, the Construction Manager or Engineer will provide to the Contractor the required survey control points based on a 10-foot control grid within each excavation area, plus additional control points along the perimeter of the excavation area. The Contractor shall be required to maintain this grid and complete all elevation measurements on this grid for the duration of the project (i.e., the same control points will be used to measure elevations prior to and following soil removal activities, as well as to document final post-backfilling limits and elevations). Surveying shall be performed to verify that the

horizontal and vertical limits of removals have been obtained and that the final surface grade has been achieved.

3.02 PRE-CONSTRUCTION SURVEY

A. The Contractor shall perform pre-construction surveys at the survey points specified above of the following:

1. Elevations of the entire area of the vernal pools subject to excavation
2. Perimeters of the areas to be excavated
3. Perimeters of the areas to be treated (i.e., the entire areas of the vernal pools subject to treatment)

B. Pre-construction survey data and drawings shall be submitted for approval to the Construction Manager prior to commencing any excavation or media placement activities in the surveyed areas, unless otherwise allowed by the Construction Manager.

3.03 POST-EXCAVATION SURVEY

A. The Contractor shall perform post-excavation surveys on the established 10-foot grid and perimeter locations to document that the target removal depth has been achieved at all survey points.

B. The Contractor shall provide survey results associated with post-excavation conditions to the Construction Manager for approval prior to initiating backfilling.

3.04 POST-CONSTRUCTION SURVEY

A. The Contractor shall perform post-construction (i.e., post-backfilling) surveying on the established 10-foot grid and perimeter locations to document the completed work and to confirm restoration to pre-construction elevations as detailed in Section 31 23 00 – Excavation and Fill.

B. The Contractor shall perform a post-restoration survey of all excavation and amendment pools on a 10-foot grid and perimeter locations to document the completed work and to document as-built conditions.

C. The Contractor shall perform post-construction surface topography measurements within other areas significantly disturbed by construction activities, such as staging areas and secondary temporary access roads.

D. The Contractor shall survey and identify drainage features (e.g., culvert pipes, subsurface pipes, manholes, catch basins, ditches, swales, pipe inlets/outlets, riprap protection, check dams, and berms) potentially impacted by the Work. Include descriptions of items including material types, pipes and sizes, manholes, and catch basins.

3.05 CONTROL OF WORK

A. Reference Points

1. Established reference points damaged or destroyed by the Contractor shall be re-established by the Contractor.
2. From established reference points, establish lines, grades, and elevations necessary to control the Work. Obtain measurements required for executing the Work to the tolerances specified.
3. Establish, place, and replace as required such additional stakes, markers, and other reference points necessary for control, intermediate checks, and guidance of construction operations.

B. Accuracy:

1. For topographic land surveys:
   a. Horizontal accuracy shall be ±0.1 foot unless otherwise specified or approved by the Construction Manager.
   b. Vertical accuracy shall be ±0.05 foot unless otherwise specified or approved by the Construction Manager.
   c. Survey calculations shall include an error analysis sufficient to demonstrate required accuracy.

END OF SECTION

PART 1 – GENERAL

1.01 DESCRIPTION

A. Scope

1. The Contractor shall furnish all materials, equipment, and labor necessary to construct, maintain, and operate decontamination areas associated with decontamination of vehicles, equipment, materials, and personnel, as well as to collect, characterize, and dispose of decontamination fluids.
2. The Contractor is responsible for decontamination of all vehicles, equipment, and personnel that come into contact with contaminated materials at the site prior to handling clean materials or prior to demobilization from the Site.
3. Track and report the decontamination status of equipment on a daily basis.

B. Related Sections

1. Section 02 72 00 – Water Management
2. Section 31 23 00 – Excavation and Fill
3. Section 13 80 01 – Temporary Access Roads and Staging Areas
4. Section 13 90 01 – Amendment Placement – Vernal Pools
5. Section 35 20 24 – Excavated Material Processing and Handling

1.02 APPLICABLE CODES, STANDARDS, AND SPECIFICATIONS

A. *Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities* (October 1985), as prepared by the National Institute of Occupational Safety and Health, Occupational Safety and Health Administration (OSHA), and U.S. Environmental Protection Agency (USEPA).

B. Code of Federal Regulations 40 CFR 761.

1.03 SUBMITTALS

A. The Contractor shall include Safety Data Sheets (SDSs) for all cleaning and decontamination solutions in the Contractor's Health and Safety Plan. SDSs shall be provided for review by the Construction Manager prior to being brought on site.

B. The Contractor shall prepare and submit a Project-specific Decontamination Plan as part of the Contractor's Operations Plan for review and approval by the Construction Manager that outlines the facilities, measures, and controls to manage and prevent contamination outside of the work area limits and includes, at a minimum, the following:

1. Methods and procedures for equipment and personnel decontamination (e.g., bulk material removal, high-pressure water sprays, manual brushing, and boot washes) and methods of storage, transport, and disposal for decontamination wastes
2. Any decontamination products to be used
3. Planned locations of decontamination activities and methods to reduce contact with impacted materials
4. Describe the locations where equipment and personnel decontamination will be conducted.
5. Identify methods to track and report the daily decontamination status of all equipment.

C. The Contractor shall submit an Equipment Decontamination Documentation Report to the Construction Manager to certify decontamination has been completed on all equipment before it is demobilized.

PART 2 – PRODUCTS

A. The Contractor shall use only those cleaning and decontamination materials that will not create hazards to health or property and will not damage surfaces.

B. The Contractor shall use only those cleaning and decontamination materials and methods recommended by the manufacturer of the surface material to be cleaned.

C. The Contractor shall use cleaning materials only on surfaces recommended by the cleaning material manufacturer.

D. SDSs shall be kept on site at all times for all cleaning products in accordance with the Contractor's Health and Safety Plan (HASP).

PART 3 – EXECUTION

3.01 GENERAL REQUIREMENTS

A. All non-disposable equipment that comes in contact with polychlorinated biphenyl (PCB)-containing material shall be decontaminated by the Contractor prior to handling clean materials or prior to demobilization from the Site.

B. The Contractor shall decontaminate all vehicles leaving the work area, including temporary access roads, to prevent the tracking of soil material outside of the limits of work and onto local roads. Vehicles and equipment that come into contact with impacted materials shall be visually inspected and decontaminated to the satisfaction of the Construction Manager. Any visible soil or other debris shall be promptly removed

and appropriately disposed of, in accordance with the specifications of this Section and to the satisfaction of the Construction Manager.

C. All vehicles requiring decontamination shall be washed sufficiently to remove all visible soil from the vehicle body, undercarriage, and tires. The Contractor shall ensure no visible tracking of soils onto roadways occurs, as visually confirmed by the Construction Manager.

D. The Contractor is responsible for the cleaning and off-site removal of non-disposable equipment that has been used during implementation of the Project and has come in contact with impacted materials or otherwise become soiled.

E. The Contractor is responsible for post-cleaning wipe sampling for PCBs with oversight by the Construction Manager and analysis of those wipe samples for any equipment that has been in contact with impacted materials prior to demobilization. The equipment will not be allowed to leave the Site until wipe sample results verify PCB results are less than 10 micrograms per 100 square centimeters (cm^2).

F. The decontamination standard for equipment that will remain on site and be dedicated to future potential Project use and may be used for other operations (such as backfilling) is the removal of all visible sediment/soil on the surface of the equipment, to be confirmed by the Construction Manager.

G. The decontamination standard for equipment that will no longer be used on the Project is the removal of visible material and power washing of surfaces so the cleaned surface can be wipe tested to show that equipment surfaces contain PCBs at concentrations less than 10 micrograms per 100 cm^2. Wipe test locations and frequencies are subject to approval by the Construction Manager. The results of this initial wipe testing must show that equipment surfaces contain PCBs at concentrations less than 10 micrograms per 100 cm^2. If this initial testing verifies that decontamination procedures were effective (i.e., less than 10 micrograms per 100 cm^2), future decontamination of equipment that will remain on site and be dedicated to future potential Project use shall be confirmed by visual inspection that all visible sediment/soil on the surface of the equipment has been removed. If this initial testing indicates decontamination procedures were not effective, the Contractor shall adjust its decontamination procedures and conduct additional wipe testing with oversight by the Construction Manager to demonstrate effective decontamination.

H. Wipe samples shall be collected using a hexane-soaked gauze pad provided by an approved analytical laboratory following USEPA's standard wipe test methodology (i.e., using a 10- by 10-centimeter template and wiping the surface with the gauze pad while applying uniform pressure from left to right and then top to bottom within the template). The wipe samples shall be submitted to an approved analytical laboratory by the Contractor for analysis for PCBs in accordance with USEPA SW-846 Method 8082.

I. The decontamination process shall be performed in such a manner that all water used and sediment removed during decontamination is captured and managed in accordance with Section 02 72 00 – Water Management and all applicable laws and regulations.

J. The Contractor shall take precautions to limit contact between the vehicle/equipment, personnel performing the decontamination activities, and any decontamination liquids that may accumulate in the decontamination area. Personal protective equipment, including disposable clothing for personnel engaged in decontamination activities, shall be used as required by the Contractor's HASP.

3.02 DECONTAMINATION AREAS

A. Construct and maintain decontamination area(s) in accordance with the Contract Documents to accommodate all loads, vehicles, equipment, and migration scenarios.

B. Construct the decontamination area at locations approved by the Construction Manager prior to construction. This will include decontamination areas local to each pilot test vernal pool, as well as tire wash stations at the egress from temporary access roads to public roadways, as shown in the Design Drawings.

C. Construct and maintain appropriately sized decontamination areas for personnel. Locate personnel decontamination areas within the contamination-reduction zone and include facilities necessary to decontaminate personnel upon exiting the work area (exclusion zone) in accordance with the Contractor's HASP and local, state, and federal laws and regulations.

END OF SECTION

PART 1 – GENERAL

1.01 DESCRIPTION

A. Scope

1. The Contractor shall furnish all labor, equipment, materials, power, and appurtenances necessary to manage Construction Water generated during the Project. Construction Water includes, but is not limited to, the following:
   a. Water generated during excavation operations
   b. Water generated from soil dewatering and processing activities
   c. Water generated from wheel washing and other decontamination activities
   d. Stormwater that accumulates in the excavation and staging areas
2. The Contractor shall collect Construction Water, temporarily containerize Construction Water within the staging areas in fractionation tanks, and dispose of Construction Water off site at GE's Building 64G Water Treatment Facility (WTF) at the GE-owned facility in Pittsfield (Building 64G WTF) or at an off-site facility in accordance with this Section.
3. The Contractor shall provide, maintain, and remove as necessary any tanks, piping, and pumps necessary to containerize Construction Water and temporarily store the Construction Water as needed prior to on-site disposal at the Building 64G WTF or at an off-site facility.
4. Water that has not been impacted by solidification/stabilization agents or detergents and decontamination additives or other additives may be disposed of at the Building 64G WTF following pre-treatment to achieve a total suspended solids (TSS) content of 25 milligrams per liter (mg/L).
5. Water that has been impacted by solidification/stabilization agents or detergents and decontamination additives or other additives shall be disposed of by the Contractor at a GE-approved off-site disposal facility.
6. The Contractor shall furnish all labor, equipment, and materials necessary to power, operate, and maintain a temporary water pre-treatment system (PTS) to successfully pre-treat Construction Waters generated during performance of the Work to be treated at the Building 64G WTF. The Contractor shall design the temporary PTS to meet all applicable performance requirements and Technical Specifications.
7. The Contractor shall plan and be prepared to conduct Construction Water management 7 days per week, 24 hours per day as necessary based on field conditions as determined by the Construction Manager.

B. RELATED SECTIONS

1. Section 02 51 00 – Decontamination
2. Section 02 81 02 – Transportation and Disposal of Waste Material
3. Section 13 80 01 – Temporary Access Roads and Staging Areas
4. Section 31 23 00 – Excavation and Fill
5. Section 35 20 24 – Excavated Material Processing and Handling

1.02 SUBMITTALS

A. The Contractor shall prepare and submit a Water Management Plan as part of the Contractor's Operations Plan for review and approval by the Construction Manager prior to mobilization. At a minimum, the Water Management Plan shall include the following:

1. A description of the water management components, treatment equipment, and storage tanks, including the types, sizes, quantities, arrangements, power sources, and capacities of each component
2. Shop Drawings showing proposed layout and details of the system to collect, containerize, convey, and pre-treat Construction Waters, including manufacturer make and model of equipment, tanks, pumps, piping, manifolds, valves, gauges, instrumentation, connections, materials, supports, controls, appurtenances, and any other necessary items required
3. A complete description of procedures to be followed during installation, location and provision of primary power source (if required), operation, and maintenance and removal in relation to the proposed sequence of the Work
4. Design calculations demonstrating the adequacy of the proposed systems and equipment, including all treatment system components. Design calculations and submittals shall be certified by a licensed Professional Engineer registered in Massachusetts
5. Contingency measures to handle additional water volume associated with storm events
6. A detailed description of the transfer system associated with the contingency high surface water elevation transfer system
7. Response actions for impending storms, including steps to secure Site facilities, equipment, and materials

PART 2 – MATERIALS

2.01 GENERAL

A. The Contractor shall be responsible for the selection and provision of all processes, equipment, pumps, piping, manifolds, tanks, valves, gauges, connections, supports, controls, electrical, instrumentation, and appurtenances and other materials related to the Work. Products used in the Work shall be produced by manufacturers regularly engaged in the production of such items and that have a successful history of product acceptability, as interpreted by the Construction Manager.

B. The Contractor shall be fully responsible for inspecting Work performed by all of its subcontractors to ensure the Work complies with the Design Drawings, Specifications, and Contract Documents.

2.02 MINIMUM REQUIREMENTS

A. At a minimum, the water collection and temporary storage system shall include the following components. The Contractor may propose alternate or additional components for approval by the Construction Manager:

1. Water Storage: Adequate water storage capacity shall be provided for all water requiring treatment. The Contractor shall supply and operate all required transfer pumps and piping necessary to transfer influent flow to and from the water storage system.
2. Transfer Pumps and Piping: Transfer pumps and piping shall be provided as necessary to transfer water from portable tanks to the Building 64G WTF. All transfer pumps shall be plumbed and capable of pumping their rated capacity at the total dynamic head required for all system components.
3. Filtration Equipment: Filtration equipment shall be provided sufficient to meet the TSS discharge criteria
4. Sample Ports: Sample ports shall be provided such that water quality samples can be collected before transportation to the Building 64G WTF.
5. Miscellaneous Components: All other miscellaneous components (e.g., valves, piping, controls, and gauges) shall be provided as necessary for a complete and operable water collection and storage system.

2.03 SPARE PARTS

A. The Contractor shall furnish spare parts and accessories for equipment necessary to maintain continuous operation of the water collection, treatment, and temporary storage system.

B. Spare parts for the water collection, treatment, and temporary storage system shall be maintained and stored either on site or within a reasonable distance from the Project Site by the Contractor. Sufficient spare parts shall be provided to ensure operation of the water collection and temporary storage system as needed with minimal downtime.

PART 3 – EXECUTION

3.01 TEMPORARY WATER STORAGE, TREATMENT, AND DISPOSAL

A. The Contractor shall provide all water storage tanks, piping, filters, and pumps required for collection, temporary storage, treatment, and on-site transport to and disposal at the Building 64G WTF of Construction Water or off site in accordance with this Section.

B. Water to be disposed of off site shall be characterized, transported, and disposed of consistent with Section 02 81 02 – Transportation and Disposal of Waste Material

C. The method(s) by which water is collected, stored, treated, and transferred shall be conducted in a manner that prohibits the spillage, leakage, or other release of water as collected.

D. Equipment, pumps, piping, and tanks shall be maintained in good condition at all times. Any and all leaks shall be immediately and properly repaired.

E. The Contractor shall size storage tanks, piping, filters, and pumps to provide sufficient capacity to prevent downtime and to account for applicable storm events.

F. Management of on-site storage tank capacity, on-site treatment, transport and/or disposal of temporary water is solely the Contractor's responsibility. Any power requirements shall be the responsibility of the Contractor to provide by means of a temporary connection to available power (complete with ground-fault and overcurrent protection) or an electrical generator.

G. The Contractor shall clearly mark all storage containers to indicate the known or suspected contents, source area(s), and date(s) of generation.

3.02 PRE-TREATMENT SYSTEM PERFORMANCE REQUIREMENTS

A. The temporary PTS and associated storage shall be in the designated staging areas indicated on the Contract Drawings.

B. The Contractor shall design the temporary PTS to meet the following discharge criteria:

1. TSS shall be less than 25 mg/L.

2. Discharge flow rate shall be determined by the Contractor within the limits of the Building 64G WTF, can accept a feed rate from the transport tankers of up to approximately 20 to 30 gallons per minute.

C. The daily discharge rate may be decreased or temporarily halted at the discretion of the Owner based on field conditions and the operating capacity of the Building 64G treatment system. For planned events, GE shall provide the Contractor with 24 hours' notice.

D. The Contractor shall not transfer any water to the Building 64G WTF without prior approval and coordination with the Construction Manager.

E. The Contractor shall dispose of the waste solids generated from the temporary PTS in accordance with Section 02 81 02 – Transportation and Disposal of Waste Material.

3.03 TESTING, STARTUP, OPERATION, AND REPORTING

A. After mobilization and setup of the temporary PTS, the Contractor shall perform system startup and testing activities and troubleshooting prior to initiating full-scale (normal) operations in accordance with the manufacturer's recommendations. The test shall demonstrate to the satisfaction of the Construction Manager that the Contractor's systems are adequate to meet PTS performance requirements identified in this Technical Specification.

B. During operations and prior to transfer of pretreated water to the Building 64G WTF, all batched water shall be tested for TSS at a minimum rate of 1 sample per 5,000 gallons of water.

C. If the effluent TSS exceed the criteria outlined in this Technical Specification, the Contractor shall suspend the discharge operations immediately and undertake appropriate remedial measures to bring the discharge in compliance with the criteria.

D. The Contractor shall monitor and record the volume of water transferred to the Building 64G WTF.

E. The Contractor shall submit the representative water samples for analysis for TSS. All laboratory analytical results shall be provided to the Construction Manager prior to transport to the Building 64G WTF.

3.04 CONTINGENCY FOR HIGH-WATER CONDITIONS

A. Pilot study construction is planned for late summer or autumn when the vernal pools are not flooded and during relatively dry conditions. In the event that there is significant standing water in the pilot study pools, and it is not anticipated that the pools will dry out in a time frame that will allow for completion of the pilot test construction in the construction season, the Contractor shall work collaboratively with the Construction

Manager to develop a plan to pump the standing water in the vernal pools to the Housatonic River in a manner that minimizes entrainment of sediments at the suction end to avoid impacts to the river. If pumping of standing water to the river is required, the Contractor shall prepare a pumping and discharge plan that will be subject to approval by the Construction Manager before implementation. Prior to the Construction Manager approval of the plan, U.S. Environmental Protection Agency (EPA) approval of the proposed pumping and discharge approach will be required.

B. During any pumping to the river, measures shall be implemented to minimize entrainment of sediments at the suction end. Any water pumped to the Housatonic River shall be filtered to remove suspended solids prior to discharge.

C. The Contractor shall provide, install, and operate the required pumps, piping, and other equipment required for this water transfer.

END OF SECTION

PART 1 – GENERAL

1.01 DESCRIPTION

A. Scope

1. The Contractor shall furnish all labor, materials, tools, vehicles, containers, markings, documentation, and equipment necessary for the transportation of waste materials to Owner-approved off-site disposal facilities. Waste materials generated during the vernal pool pilot study are anticipated to include, but are not limited to, excavated material, debris, removed vegetation that will not remain at the Site, personal protective equipment (PPE), and spent filter media and solids generated from water treatment.
2. Because the Upland Disposal Facility (UDF) and the Utility Drive Rail Transload Area are not expected to be fully constructed and operational when the vernal pool pilot study is implemented, waste materials generated during the vernal pool pilot study shall be transported off-site by truck or as otherwise approved by the Construction Manager and Owner.
3. The Contractor shall characterize waste for off-site disposal as specified herein and in accordance with the Contract Documents.
4. The Contractor shall conduct transportation and disposal of waste materials as specified herein and in accordance with the Contract Documents.
5. The Contractor shall implement best management practices (BMPs), controls, and other measures necessary to maintain compliance with the project environmental and quality of life criteria described in Section 01571 – Operations Environmental Restrictions and Controls.

B. Related Sections

1. Section 01571 – Operations Environmental Restrictions and Controls
2. Section 02 51 00 – Decontamination
3. Section 13 80 01 – Temporary Access Roads and Staging Areas
4. Section 35 20 24 – Excavated Material Processing and Handling

1.02 APPLICABLE CODES, STANDARDS, AND SPECIFICATIONS

A. 40 *Code of Federal Regulations* (CFR) 258 through 268 and 40 CFR 761

B. 49 CFR 107, 171, and 177

C. 310 Code of Massachusetts Regulations (CMR) 30

D. Applicable U.S. Department of Transportation (USDOT) and Massachusetts Department of Transportation (MassDOT) regulations

E. USEPA SW 846 Method 9095B – Paint Filter Liquids Test

F. Revised Final Resource Conservation and Recovery Act Corrective Action Permit (USEPA, September 2020[1])

G. Revised On-Site and Off-Site Transportation and Disposal Plan (Revised T&D Plan; Arcadis 2024[2])

H. Project Operations Plan (Revised T&D Plan; Arcadis 2025[3])

I. Revised Quality of Life Compliance Plan (QOL Plan) (Anchor QEA and Arcadis 2025[4])

J. National Manual on Uniform Traffic Control Devices for Streets and Highways

K. If there is a conflict or overlap of any of the above references applicable to the Work, the most stringent provision will be controlling. In the event any requirement of this Technical Specification contradicts any such applicable regulatory requirement, immediately notify the Construction Manager of such conflict or contradiction.

1.03 SUBMITTALS

A. The Contractor shall prepare and submit to the Construction Manager for review and approval a Waste Transport/Disposal Plan as part of the Contractor's Operations Plan containing all pertinent information relating to the transport and disposal of materials specified herein. The Waste Transport/Disposal Plan shall include, at a minimum, the following:

1. A summary of waste materials anticipated to be generated along with estimated quantities.
2. Details for all waste transporters to be used including, but not limited to, the following:
   a. Name, title, and telephone number of contact person for each transporter to be used.
   b. MassDOT Transporter Identification Number and expiration date.

[1] EPA (U.S. Environmental Protection Agency), 2020. *Revised Final Permit Modification to the 2016 Reissued RCRA Permit and Selection of CERCLA Remedial Action and Operation & Maintenance for Rest of River*. December 2020.
[2] Arcadis, 2024. *Revised On-Site and Off-Site Transportation and Disposal Plan*. Prepared for the General Electric Company, Pittsfield, Massachusetts. October 2024.
[3] Arcadis, 2025. *Project Operations Plan GE-Pittsfield/Housatonic River Site.* Prepared for the General Electric Company, Pittsfield, Massachusetts. May 2025.
[4] Anchor QEA and Arcadis, 2025. *Second Revised Quality of Life Compliance Plan. Housatonic River – Rest of River.* Prepared for General Electric Company, Pittsfield, Massachusetts. May 2025

c. Proof of permit, license, or authorization to transport hazardous material in Massachusetts and any other applicable state.

3. Details for all recycling and treatment/disposal facilities that the Contractor proposes to use including, but not limited to, the following:
   a. Facility name and address.
   b. Name, title, and telephone number of contact person for each facility.
   c. Lists of materials that each facility will accept for this Work, as well as whether the facility is a recycling, treatment, storage, or disposal facility.
   d. Estimated quantities of waste materials that are expected to be transported to each facility-specific location.
   e. Written confirmation from the facility that they will accept the type and quantities of materials, the daily maximum and minimum quantities (cubic yards or tons per day), and the dates and times (including days of the week) they will accept materials from this Work.
   f. Documentation that the facility possesses all permits and approvals necessary to accept and dispose of the waste materials.
   g. Trucking routes to the facility.
4. Details, procedures, and methods for characterizing waste materials, as required by the Owner-approved disposal facilities. Information must include, but not be limited to, methodology for sample collection, chemical and physical analyses, sampling and testing frequencies, and applicable criteria.
5. Identification of the Contractor's Waste Transport Manager
6. A description of the procedures, materials, methods, and equipment to be used for loading and transporting waste materials to the Owner-approved off-site disposal facilities including, but not limited to, the following:
   a. Traffic control procedures.
   b. Truck inspection and decontamination procedures.
   c. Coordination with the disposal facility(ies).
   d. Recordkeeping procedures and submittal of daily transport reports and trucking logs.
   e. An estimated number of truckloads to be transported to the Owner-approved off-site disposal facility(ies) each week, along with the maximum truckload weights.
   f. Means and methods for lining and covering trucks.
   g. Means, methods, and locations for loading material onto trucks at the excavation areas and staging areas.
   h. A description of the means and methods to estimate the weight of each truckload.
   i. A description of the bills of lading, waste manifest, and chain-of-custody procedures.
   j. A template for bills of lading and waste manifests.

k. Means and methods for unloading material at the Owner-approved off-site disposal facility(ies).
l. Provisions for responding to transportation emergencies such as accidents, spills, releases, or other incidents.

B. The Contractor shall submit copies of all waste profiles established with the selected and approved disposal facilities.

C. The Contractor shall submit a copy of all waste manifests and bills of lading for each truckload transported from the Project Area to the Owner-approved off-site disposal facility(ies). At a minimum, each waste manifest or bill of lading shall contain the following information:

1. Load number (sequential).
2. Hazardous waste manifest or bill of lading number.
3. Truck ID number (e.g., license plate number of the truck and/or trailer used).
4. Type of material transported (e.g., dewatered/processed soil, debris, and vegetation).
5. Disposal location.
6. Date and time of loading at the removal area or staging area.
7. Approximate volume and weight of the material.
8. The 24-hour number at which Owner personnel will be contacted as soon as practicable in case of an accident.
9. Signature of the Owner (or their authorized representative) and the truck driver prior to departing the Project Area.
10. Date and time of departure from the Project Area.
11. Date and time of unloading at the Owner-approved off-site disposal facility.
12. Signature of the truck driver and Disposal Facility representative when the materials are unloaded at the Owner-approved off-site disposal facility

D. The Contractor shall submit daily disposal tracking logs to the Construction Manager. The disposal tracking log shall include date, waste type, transporter, disposal facility identification and location, manifest number, vehicle number, driver, and approximate volume and weight of waste.

E. The Contractor shall submit final weight/scale tickets for all waste shipments.

F. The Contractor shall document final disposal of the waste at the designated facility by submitting disposal receipts and/or Certificates of Disposal from the disposal facility. Such certificates and receipts shall bear the printed name of the facility operator and shall

specify the date of delivery, quantity and type of material delivered, and weight tickets, and must be signed by a representative of the facility operator. The disposal receipts will be submitted to the Construction Manager on a weekly basis.

1.04 REGULATORY REQUIREMENTS

A. Applicable federal, state, and local laws, codes, and ordinances that govern or regulate hazardous materials and wastes, shall apply to the work of this Technical Specification, including the Massacusetts Hazardous Waste Regulations, USEPA Resource Conservation and Recovery Act (RCRA) regulations in 40 CFR 258 through 268, and polychlorinated biphenyl (PCB) regulations at 40 CFR 761.

B. Trucks used to transport excavated material shall be inspected and certified by USDOT. The Contractor shall obtain all federal, state, and local permits as required for the transport of waste material. The Contractor shall adhere to all permit requirements.

C. The Contractor shall comply with the requirements of 310 CMR 30 – Hazardous Waste, specifically 30.4 – Requirements for Transporters of Hazardous Waste.

D. The Contractor personnel shall be trained in accordance with USDOT requirements for handling and shipping hazardous materials, with such training to include general safety, emergency response, exposure protection, accident prevention, preparation of shipping papers, and securing loads.

E. Each waste transporters shall have a Commercial Driver's License with a Hazardous Materials Endorsement.

PART 2 – PRODUCTS

A. Polyethylene sheeting, minimum 10-mil thickness

PART 3 – EXECUTION

3.01 GENERAL

A. All waste materials generated shall be transported and disposed of off-site at an Owner-approved disposal facility in accordance with all applicable federal, state, and local laws and regulations. In addition, the Contractor shall comply with the procedures and requirements described in the Revised T&D Plan (Arcadis 2024), including Section 6.2 (Off-Site Transportation Requirements), Section 6.3 (Tracking and Recordkeeping), and Section 8 (Off-Site Disposal Destination Screening and Selection), and Section 9 (Community Assessment and Mitigation).

B. The Contractor shall propose an appropriate and licensed off-site disposal facility(ies) for each waste stream generated during the Work. The Contractor's proposed disposal facilities shall be subject to approval by the Owner.

   1. Bulk waste with a PCB concentration greater than or equal to 50 mg/kg shall be disposed of in a TSCA chemical waste landfill or hazardous waste landfill permitted by EPA under Section 3004 of RCRA or by a state authorization under Section 3006 of RCRA. Potential Subtitle C disposal facilities for disposal of such waste are listed in Table 8-1 of the Revised T&D Plan (Arcadis 2024). These Subtitle C landfills are also potential disposal options for RCRA-regulated hazardous waste (if any) that is non-TSCA-regulated or waste that is both TSCA-regulated and RCRA-regulated.

   2. Non-TSCA/non-RCRA material shall be disposed of at RCRA Subtitle D (solid waste) disposal facilities as long as the acceptance criteria of the individual facility permits are met. Potential Subtitle D landfills for the disposal of non-TSCA/non-RCRA waste are listed in Table 8-1 of the Revised T&D Plan (Arcadis 2024).

C. The Contractor shall coordinate the schedule and transport of materials with the approved disposal facilities.

D. The Contractor shall be responsible for ensuring that all materials to be disposed meet the requirements of the selected disposal facilities.

E. The Contractor shall assign at least one Waste Transport Manager to coordinate the loading, transport, and unloading of waste shipments with the Owner-approved off-site disposal facilities. The Waste Transport Manager shall be trained in accordance with the requirements of 49 CFR Part 172 Subpart H. The Waste Transport Manager shall ensure that the Owner-approved transport haul routes and chain-of-custody requirements are followed. The Waste Transport Manager or their appropriately trained designee shall prepare, review, and sign the bills of lading for each truck prior to departing the Project Area. The Waste Transport Manager shall be responsible for properly marking, labeling, and placarding each shipment. The Waste Transport Manager shall also be responsible for tracking the location of each truck transporting materials from the Project Area to the Owner-approved off-site disposal facilities and shall be capable of communicating directly with the truck driver by phone or radio.

F. For containers or transport vehicles used for off-site transport that contain material with PCB concentrations of 50 mg/kg or greater or that contain greater than the Reportable Quantity of PCBs (1 pound), the container or transport vehicle shall be marked as containing PCBs in accordance with EPA's TSCA regulations (40 CFR 761.40) and applicable USDOT regulations. Specifically, large PCB mark labels shall be affixed to each such container or transport vehicle on all sides. If it is determined that the waste constitutes RCRA hazardous waste, applicable placarding would accompany the loads based on the predominant hazard identified during RCRA characterization. These

marking, labeling, and placarding requirements are not applicable to transportation of material with PCB concentrations less than 50 mg/kg and containing less than 1 pound of PCB.

G. The Contractor shall implement traffic control measures to minimize potential traffic impacts, including potential accidents. The traffic control measures shall include those specified in Section 9 – Community Assessment and Mitigation of the Revised T&D Plan (Arcadis 2004).

H. The Contractor shall be responsible for removal of solid waste and debris at the Project Area throughout the duration of the Work. At all times, the Contractor shall ensure that the area within the Limits of Work and the adjoining areas, including roadways, access areas, and storage areas used, are free of solid waste and debris and shall clean up the Project Area and remove all solid waste and debris as Work progresses.

3.02 WASTE CHARACTERIZATION

A. The Contractor shall be responsible for all waste characterization necessary to the extent required by the selected off-site treatment, storage, and disposal facility (TSDF).

B. Characterization of waste for off-site disposal shall be completed consistent with the Waste Characterization Plan included as Appendix A of GE's Project Operations Plan (POP) (Arcadis 2025). In accordance with the Waste Characterization Plan, excavated soils from the vernal pools may fall into three categories: 1) material containing PCB concentrations at or above 50 milligrams per kilogram (mg/kg), for which the disposal is regulated under USEPA's Toxic Substances Control Act (TSCA) regulations; 2) material that constitutes characteristic hazardous waste under USEPA's RCRA regulations (if any); and 3) material for which disposal is not regulated under the TSCA regulations and which does not constitute hazardous waste under RCRA regulations.

C. A portion of the material to be excavated has been determined to have in-situ PCB concentrations greater than 50 milligrams per kilogram (mg/kg) and thus shall be disposed of off-site as TSCA-regulated waste.

D. Existing analytical data from previous Rest of River (ROR) sediment and floodplain soil sampling for non-PCB constituents were evaluated to determine whether sediments and soils designated for removal may be considered hazardous waste under RCRA. This screening evaluation was performed using the "20 times rule." This screening of the ROR data indicate that characteristic RCRA hazardous waste would not be expected in the ROR.

E. Existing soil analytical data have or will be provided to the Contractor for use in establishing waste profiles with the selected disposal facilities. If additional waste characterization is required by the off-site TSDF operator, the Contractor shall be responsible for all waste characterization sampling, analytical testing, reporting, and data

validation. All waste characterization data shall be submitted to the Construction Manager within 7 days of receipt from the analytical laboratory.

F. The Contractor shall notify the Construction Manager at least 3 business days prior to sampling for waste characterization for offsite recycling or treatment/disposal. The Construction Manager may elect to observe any sampling performed by the Contractor.

3.03 WASTE PROFILES AND SHIPPING DOCUMENTS

A. The Contractor shall be responsible for establishing waste profiles with the selected disposal facilities.

B. For off-site transport to off-site disposal facilities, manifests shall be used to track waste shipments to the selected disposal facilities. Non-hazardous waste manifests shall be used for shipments of non-TSCA/non-RCRA waste to Subtitle D facilities. The Uniform Hazardous Waste Manifest (UHW Manifest) form (EPA Form 8700-22 and, if necessary, continuation sheet Form 8700-22S) shall be used for shipments of TSCA-regulated waste and/or RCRA hazardous waste (if any) to Subtitle C facilities.

C. Waste manifests shall accompany the off-site transported material and be signed by the generator (GE) or its authorized representative, the transportation vendor(s), and the final receiving facility. The Contractor shall be responsible for coordinating signatures for all waste manifests. Copies of all final waste manifests shall be submitted to the Construction Manager.

D. The Contractor shall work with the relevant off-site disposal facility to prepare and print unique and appropriate shipping documents for each off-site shipment. The shipping documents shall include all transporters used during transportation to the disposal facility. Each transporter shall sign its section of the shipping document until it reaches the disposal facility. The disposal facility shall return shipping documents to the Contractor to close out the process.

E. The Contractor shall obtain weight tickets for each off-site shipment and provide copies of the tickets to the Construction Manager with the associated waste manifest.

3.04 WASTE PHYSICAL PROPERTY REQUIREMENTS

A. All excavated soils and debris shall pass the Paint Filter Test (USEPA Test Method 9095B) prior to loading and transport to the Owner-approved off-site disposal facilities. The Paint Filter Test shall be performed by the Contractor in accordance with Section 35 20 24 – Excavated Material Management and Processing.

B. The Contractors shall process waste materials as needed to achieve all acceptance criteria by the disposal facility.

3.05 TRANSPORT AND DISPOSAL

A. Transport of materials to off-site disposal facilities by truck shall be performed by licensed haulers in accordance with appropriate local, state, and federal regulations.

B. Waste shall be transported in lined and covered USDOT-approved containers. Containers shall meet all USDOT shipping requirements. Shipping containers shall be filled to within legal weight and height limits for shipping. Waste shall be contained to comply with all approved disposal facility requirements.

C. The Contractor shall be responsible for segregating, processing, and sizing debris and vegetation as necessary to meet the Owner-approved off-site disposal facility's criteria prior to transport.

D. The Contractor shall be responsible for providing adequate measures to prevent the development of free liquids (as determined by the Paint Filter Test) during transport and to prevent spillage or discharge of waste from the transportation vehicle during waste hauling operations.

E. Trucks transporting material from the Project Area to the Owner-approved off-site disposal facilities shall follow the haul route(s) shown on the Design Drawings.

F. The Contractor shall retain custody of each waste shipment until accepted at the appropriate disposal site. Acceptance of the materials at the applicable disposal facility shall occur when the waste hauling procedures and unloading requirements as outlined in the Owner-approved off-site disposal facility's Operations and Maintenance Manual (or their applicable procedures) have been confirmed by the facility operator. If the applicable requirements are not fulfilled, the Contractor shall retain custody of the materials, and the Construction Manager shall be notified immediately.

G. The Contractor shall delivery and unload the waste materials at the Owner-approved off-site disposal facility within 180 days of excavation.

H. For the transport of excavated materials from the project Site by truck to the off-site disposal facility(ies) or to an off-site railroad loading area for further transport by rail, the Contractor and the transporters (as applicable) shall comply with all off-site transportation and disposal requirements.

I. The transport of excavated materials from the staging areas (or from the removal areas if material can be directly loaded) by truck to the appropriate off-site disposal facility(ies) or to an off-site rail loading area shall be conducted in accordance with the following guidelines:

    1. After a safety check of the truck, the truck bed shall be lined with polyethylene sheeting.

2. Excavated soil and debris shall then be placed in the truck and the load shall be covered.
3. An appropriate waste manifest or bill of lading shall be prepared and signed.
4. After another safety check of the vehicle and placarding, the truck shall leave the staging areas and proceed to the off-site disposal facility(ies) (or loading area) using the pre-approved route.

J. All trucks leaving on public roads shall meet MassDOT and U.S. DOT weight limits.

K. If rail is used to transport waste materials to an off-site disposal facility, the Contractor and its rail transporter (as applicable) shall:

1. Comply with federal and state requirements for such transport using appropriate waste manifests or bills of lading and other appropriate railroad shipping documents.
2. Placard railroad cars in accordance with USDOT and Federal Railroad Administration requirements.
3. Employ qualified personnel trained in accordance with USDOT requirements for handling and shipping hazardous materials, with such training to include general safety, emergency response, exposure protection, accident prevention, preparation of shipping papers, and securing loads.
4. Transport material in USDOT-approved shipping containers that are covered (e.g., intermodal boxes, gondolas).
5. Have detailed provisions for responding to transportation emergencies such as accidents, spills, releases, or other incidents.
6. Maintain transportation and disposal records, including the number of loads of materials sent to the disposal facilities on a daily basis and copies of the final manifests, weight tickets, and certificates of disposal.

END OF SECTION

PART 1 – GENERAL

1.01 DESCRIPTION

A. Scope

1. The Contractor shall furnish all supervision, labor, tools, materials, equipment, services, and appurtenances necessary for the construction, stability, maintenance, and repairs of temporary access roads to allow for the transit of equipment, materials, and personnel throughout the site as required in execution of the Work.
2. Existing primary temporary access roads as shown in the Design Drawings are defined as existing unimproved roads where pilot test activities will be conducted. The Contractor shall be responsible for improvements to these roads as necessary to complete the pilot test activities. Removal of temporary road improvements following construction is not required.
3. Planned secondary temporary access roads as shown in the Design Drawings are defined as temporary roads to be constructed by the Contractor. The Contractor shall be responsible for clearing the route, construction of these roads, and road removal and restoration following completion of construction.
4. The Contractor shall improve, construct, and maintain existing and planned temporary access roads, as shown in the Design Drawings, of width and load-bearing capacity to support the safe and efficient transit of vehicles, equipment, and all other appurtenances necessary for the performance of the Work.
5. The Contractor shall construct/improve access roads and staging areas to minimize disturbance of existing trees greater than 6 inches in diameter at breast height (DBH) and to minimize impacts to existing marsh subgrade and vegetation, where present, under oversight by the Owner's designated Project Wetland Scientist. This may include using gravel or low-impact methods, such as matting, as determined on a case-by-case basis. For any wetland areas with softer organic soils, The Contractor shall use methods other than gravel to avoid, to the extent practicable, excessive soil compaction that could result in detrimental impacts to restoration. Existing marsh to be protected is primarily present adjacent to Vernal Pool 5A-VP-52. The Contractor's proposed means and methods shall be detailed in the Contractor's Operations Plan and must be approved by the Construction Manager prior to the start of work associated with these features.
6. The Contractor shall construct staging areas as necessary to support construction activities, including excavated soil and backfill/amendment temporary staging, soil dewatering and stabilization if needed, and equipment and personnel decontamination. Staging areas shall be constructed and operated as necessary to allow safe and efficient execution of the project, to minimize habitat impacts to

the surrounding area, and to prevent spread of contamination from the vernal pools to surrounding areas.

7. The Contractor shall anticipate variable surface and subsurface conditions within the roadway alignments and staging areas, including low-lying and wet areas.
8. As shown in the Design Drawings, there are multiple culverts under and adjacent to the temporary access roads. It is mandatory to maintain them in their current condition to avoid impacting surface water flow to and from some of the vernal pools (i.e., do not increase or decrease flow capacity through them). Appropriate measures shall be taken by the Contractor to ensure their protection.
9. Preservation of the existing topography adjacent to the vernal pools shall be maintained throughout site access and all other construction activities. It is important to ensure surface water flows to and from the vernal pools are maintained consistent with current conditions. This is especially important for Vernal Pools 5A-VP-4, 5A-VP-7, 5A-VP-52 and 5A-VP-57, which have channels or swales leading to or from them.
10. The Contractor shall field-verify conditions on its own and improve/construct temporary roadways and staging areas as appropriate.

1.02 RELATED SECTIONS

A. Section 01571 – Operations Environmental Restrictions and Controls

B. Section 02 21 00 – Surveys

C. Section 02 51 00 – Decontamination

D. Section 02 81 02 – Transportation and Disposal of Waste Material

E. Section 31 05 13 – Soils and Aggregates

F. Section 31 11 00 – Clearing and Grubbing

G. Section 31 25 00 – Erosion and Sediment Controls

H. Section 32 30 00 – Site Restoration, Planting, and Seeding

1.03 SUBMITTALS

A. Prepare and submit detailed descriptions of the Contractor's proposed approach for temporary road and staging area construction and usage for review and approval by the Construction Manager as part of the Contractor's Operations Plan.

PART 2 – PRODUCTS

2.01 GENERAL

A. Materials shall be adequate in capacity for the required usage, shall not create unsafe conditions, and shall comply with the requirements of all applicable codes and standards and requirements of the Design Drawings and Specifications.

B. Imported materials or components of the temporary access roads and staging areas shall be clean and in good condition to the satisfaction of the Construction Manager and shall meet the requirements of Section 31 05 13 – Soils and Aggregates. If any deficiencies are identified by the Construction Manager upon inspection of the materials, the Contractor shall address such deficiencies as soon as possible.

2.02 MATERIALS

A. Aggregate

1. Aggregate used for construction of or improvements to temporary access roads and staging areas shall conform to material specified in Section 31 05 13 – Soils and Aggregates.

B. Temporary Matting

1. Temporary matting used for temporary access roads and/or staging areas shall consist of preassembled/premanufactured matting that can be placed directly on existing subgrade and decontaminated following removal. Mats shall be of appropriate stiffness and size to support and distribute loads.

PART 3 – EXECUTION

3.01 GENERAL

A. The Contractor shall install/improve temporary access roads and staging areas in a neat and reasonable uniform appearance that is structurally adequate for the required purposes. Temporary access roads shall be kept clear of sediment, refuse, and debris, maintained during execution of the Work and repaired as necessary throughout the duration of Site operations to minimize rutting or other significant deformations.

B. The Contractor shall maintain temporary access roads and staging areas to the satisfaction of the Construction Manager for the duration of the Work for which they are required. If any deficiencies are noted by the Construction Manager, the Contractor shall address such deficiencies as soon as possible.

C. The Contractor shall obtain required approvals from the Construction Manager regarding the placement of traffic-control devices, which may impact public and private roadways

associated with the Work. All approvals shall be in written form. Verbal communications will not be applicable as approval verification. The Contractor shall submit copies of written communications to the Construction Manager for review.

3.02 CONSTRUCTION/IMPROVEMENT OF TEMPORARY ACCESS ROADS AND STAGING AREAS

A. The Contractor shall provide all equipment, materials, and labor to construct and maintain the temporary access roads and staging areas as necessary to complete the Work and as generally shown on the Design Drawings.

B. The Contractor shall notify the Construction Manager when temporary access road and staging area construction and improvements are completed. The Contractor and Construction Manager must conduct a Site walk to verify installation and improvements have been completed in accordance with the Specifications and Design Drawings.

3.03 RESTORATION OF TEMPORARY ACCESS ROADS AND STAGING AREAS

A. The Contractor shall decontaminate, as appropriate, prior to removal from the Site, materials installed as components of temporary matting. Decontamination activities shall be performed in accordance with Section 02 51 00 – Decontamination.

B. The Contractor shall leave all improvements to existing primary temporary access roads constructed in place following execution of the Work.

C. The Contractor shall remove all secondary temporary access roads and local staging areas upon completion of the Work, and the areas shall be restored in accordance with Section 32 30 00 – Site Restoration, Planting, and Seeding.

D. Decontamination of roadway materials such as construction mats prior to moving to a new area of the site or removal from the site shall be completed consistent with Section 02 51 00 – Decontamination.

E. Disposal of any material resulting from removal of temporary access roads and local staging areas shall be completed consistent with Section 02 81 02 – Transportation and Disposal of Waste Material.

END OF SECTION

PART 1 – GENERAL

1.01 DESCRIPTION

A. Scope

1. The Contractor shall furnish all labor, supervision, materials, tools, equipment, services, accessories, and appurtenances necessary for, or incidental to, the placement and mixing (where specified) of amendments within the designated test vernal pools as shown on the Design Drawings and as described in this Technical Specification.
2. The Contractor shall place the amendments throughout the designated vernal pool limits shown on the Design Drawings and in individual Amendment Certification Units (ACUs) established within each vernal pool.
3. Two types of amendment applications will be tested as part of the pilot study – a sand and powdered activated carbon (PAC) mixture (hereafter referred to as "sand/PAC amendment") as described in Part 2.01 and an approved pelletized PAC delivery product as described in Part 2.02. Mechanical mixing will be tested during the pilot study in two amendment pools (vernal pools 5A-VP-9 and 5A-VP-15) that will receive the sand/PAC amendment. The amendment type and application approach for each test pool are shown on the Design Drawings.
4. The Contractor is responsible for sourcing and procuring the specified amendment materials; sampling and testing proposed amendment materials prior to delivery to the Site to verify compliance with the specified requirements; transporting the materials to approved temporary staging areas; unloading, staging, and protecting the amendment materials; blending amendments as necessary to achieve specified requirements; transporting the materials to the placement areas; and placing the amendment materials in the designated vernal pools in accordance with the Design Drawings and this Technical Specification to meet the performance requirements detailed in Parts 3.04.B and 3.04.C.
5. The Contractor shall implement best management practices (BMPs), controls, and other measures necessary to maintain compliance with the project environmental and quality of life criteria described in Section 01571 – Operations Environmental Restrictions and Controls.

B. Related Sections

1. Section 01571 – Operations Environmental Restrictions and Controls
2. Section 02 21 00 – Surveys
3. Section 02 51 00 – Decontamination

4. Section 13 80 01 – Temporary Access Roads and Staging Areas
5. Section 31 05 13 – Soils and Aggregates
6. Section 31 11 00 – Clearing and Grubbing
7. Section 31 25 00 – Erosion and Sediment Controls

1.02 SUBMITTALS

A. The Contractor shall submit an Amendment Placement Plan as part of the Contractor's Operations Plan to the Construction Manager for review and approval prior to the start of any field work relating to amendment placement. The Amendment Placement Plan shall, at a minimum, include the following:

1. Figures showing the proposed layout and extent for each vernal pool and ACU
2. Tables summarizing the areal extent of each vernal pool and each ACU within each vernal pool
   a. The tables shall summarize the area, amendment type, application rate, and application method for each ACU, along with estimated tonnages of amendment materials to be applied to each ACU.
3. Figures showing the proposed sequence for placement of amendments in each vernal pool to prevent disturbance to previously placed amendments and minimize unintended disturbance to the vernal pools, to the extent practicable
4. Electronic files in AutoCAD DWG format showing the proposed vernal pool ACU polygon boundaries
5. Figures showing the location, arrangement, and layout of temporary staging areas, material blending areas, loading areas, equipment locations, and any other details pertinent to the material management operations
6. Identification and locations of all amendment and sand material sources, along with a schedule for procurement, testing, and delivery
7. Written confirmation that the amendment materials meet the requirements in accordance with Parts 2.01 and 2.02, including manufacturer certifications and testing results as applicable
8. The estimated average thickness of the sand/PAC amendment and pelletized PAC delivery product based on the selected materials and their associated densities to achieve the application rate requirements
9. Details for material transport and staging, which include, at a minimum, transportation methods, schedules, and routing; locations of material staging areas; and details for the equipment that will be used (e.g., trucks, backhoes, conveyors, loaders, pumps, hoppers, and containers) to transport amendment materials from the source locations to the material staging areas and from the material staging areas to the designated vernal pools

10. Procedures, means, and methods for protecting the PAC and pelletized PAC delivery product from precipitation and moisture prior to placement in the designated areas
    a. The plan shall include a description of how the Contractor will isolate the material from degradation, including any proposed covers, desiccants, and monitoring.
11. Procedures, means, and methods for preparing, blending, mixing, and staging of sand/PAC amendment materials, including a description of how the Contractor will verify that the final in-place mixed ratio and homogeneity requirements are achieved
    a. At a minimum, the Contractor shall provide the estimated volume and weight of each type of material to be blended for each designated test vernal pool and ACU and describe how the mix ratios will be measured and optimized in the field.
12. A detailed description and means and methods for mobilizing amendment placement equipment and personnel around and into the treatment test pools, including the use of low-ground-pressure equipment and construction mats for any equipment positioned adjacent to or within the lateral extents of the vernal pools
13. Procedures, means, and methods for placement of the sand/PAC amendment materials and pelletized PAC delivery product, including details of the equipment to be used for material placement (e.g., backhoes, metering hoppers, conveyors, loaders, pumps, sources of water [if used], and containers), means of positioning, sequencing, and material placement techniques
14. Details of the estimated or effective ground pressure for any equipment working within the vernal pools, including equipment weights and methods to distribute the equipment loads and minimize disturbance and compaction of the vernal pool soils
    a. These details shall include the proposed types and sizes of construction matting that will be used and describe how the matting will be placed, maneuvered, and removed to facilitate the amendment placement operations.
15. Procedures, means, and methods for mixing of the sand/PAC amendment with the upper 6 inches of soil in vernal pools 5A-VP-9 and 5A-VP-15, following verification of amendment material placement
16. Procedures, means, and methods to achieve uniform distribution of amendments across the placement area and to minimize overplacement
17. Procedures, means, and methods to conduct the ramp-up test as detailed in Part 3.03

18. Procedures, means, and methods to verify accurate amendment placement locations, coverages, and performance requirements that shall, at a minimum, include the following:
    a. Procedures to verify the required lateral extent of placement
    b. Methods of survey or positioning control during placement, including the use of electronic positioning and associated software
    c. Methods to monitor material volumes and weights during placement
    d. Proposed quality control information (e.g., material volume tracking and physical sampling) to be generated throughout material placement operations to provide feedback on placement operations and document amendment placement
19. Procedures, means, methods, and BMPs that will be implemented to minimize dust generation during amendment loading, unloading, blending, transport, and placement.
20. Estimated amendment placement production rates, including the estimated average daily volume, weight, and area placement rate.
21. A detailed schedule and description of the sequence in which the planned amendment placement work will be performed for each vernal pool, accounting for verification and approval by the Construction Manager.

B. Product Data

1. Material specifications for the proposed PAC and pelletized PAC delivery product, as well as the manufacturer's written instructions on material handling, staging, and storage.

C. Material Samples

1. Provide one sample (2-pound minimum) for each proposed amendment for inspection by the Construction Manager, including the proposed PAC and the proposed pelletized PAC delivery product.

PART 2 –PRODUCTS

2.01 SAND/PAC AMENDMENT

A. The sand/PAC amendment shall be produced by blending or mixing sand with PAC at a ratio of 50% by dry weight of each material type.

1. The sand component of the sand/PAC amendment shall meet the geotechnical and chemical criteria included in Section 31 05 13 – Soils and Aggregates.
2. The PAC component of the sand/PAC amendment shall meet the following criteria:

a. The material shall be virgin.
b. The base material shall be bituminous coal.
c. Steam shall be used as its activation method.
d. Minimum iodine number is 800 milligrams per gram.
e. Maximum moisture is 10% by weight.
f. There is no more than 1% by weight greater than 100 mesh (0.15 millimeter [mm]).
g. There is no more than 10% by weight greater than 200 mesh (0.075 mm).

2.02 PELLETIZED PAC DELIVERY PRODUCT

A. The pelletized PAC delivery product shall consist of SediMite by Sediment Solutions (Ellicott City, Maryland), or an approved equivalent. Any proposed equivalent shall include details of the material types and composition of the product.

B. The PAC component of the pelletized PAC delivery product shall meet the requirements listed in Part 2.01.A.2.

C. The PAC component of the pelletized PAC delivery product shall be composed of approximately 50% PAC by dry weight.

PART 3 – EXECUTION

3.01 EQUIPMENT

A. The Contractor shall select the means and methods for amendment material blending, placement, and mixing that will achieve the performance requirements for each ACU as required on the Design Drawings and in this Specification. These means and methods shall be detailed in the Amendment Placement Plan and approved by the Construction Manager, as described in Part 1.02.

B. Any equipment entering a vernal pool footprint or operating adjacent to a vernal pool shall be low-ground-pressure equipment and be positioned on construction mats that distribute the equipment loads and minimize disturbance or compaction of the underlying vernal pool soils, to the extent practicable.

C. Any equipment that contacts polychlorinated biphenyl (PCB)-impacted soils shall be adequately decontaminated per Section 02 51 00 – Decontamination prior to use in amendment material blending or placement operations.

3.02 GENERAL

A. The amendment placement and verification for each vernal pool will be conducted on an ACU basis, with each vernal pool divided into ACUs not to exceed 2,500 square feet

(ft^2). Each vernal pool shall be divided into a minimum of three ACUs. The layout and sizing of the ACUs for each vernal pool shall be proposed by the Contractor in the Amendment Placement Plan and will be subject to review and approval by the Construction Manager. Where practicable, the Contractor's ACUs for a vernal pool shall be designated to be a consistent or nearly consistent size.

B. The Contractor shall not proceed with amendment placement operations in a vernal pool until the Construction Manager has provided the Contractor with written notification that amendment placement may commence. The Construction Manager's approval to begin amendment placement will not be provided until the Contractor's pre-placement survey is completed to establish the lateral extent of the vernal pool and the associated ACUs, as detailed in the approved Amendment Placement Plan and in accordance with Section 02 21 00 – Surveys.

C. The Contractor shall schedule and execute the work following the sequence of construction detailed in the approved Amendment Placement Plan or as otherwise approved by the Construction Manager. The Contractor shall conduct and sequence placement of amendment material such that previously placed amendment material is protected and not disturbed by subsequent movement of equipment.

D. The Contractor shall not commence amendment placement work until erosion and dust control measures are in place to the satisfaction of the Construction Manager.

E. The Contractor shall provide for secure transport and storage of amendment materials, and such materials shall be covered or otherwise secured to the satisfaction of the Construction Manager, during staging and transport. The Contractor shall install erosion control measures in accordance with Section 31 25 00 – Erosion and Sediment Controls surrounding all material staging areas. The Contractor shall designate a clean staging area at the locations depicted in the Design Drawings or in other areas as proposed by the Contractor for approval by the Construction Manager and described in pre-construction submittals per Section 13 80 01 – Temporary Access Roads and Staging Areas.

F. The Contractor shall protect the PAC and pelletized PAC delivery product from precipitation and moisture prior to placement in accordance with manufacturer recommendations.

G. The Contractor shall be responsible for any damage, deterioration, or theft of stored materials, equipment, tools, and supplies. The Contractor shall assume full responsibility for the storage and protection of all materials and equipment brought to the Site. Materials that become damaged, deteriorated, destroyed, or stolen shall be repaired or replaced at the discretion of the Construction Manager.

H. The Contractor shall establish an accurate method of horizontal control before amendment placement commences in accordance with Section 02 21 00 – Surveys and

the approved Amendment Placement Plan. The proposed method and maintenance of the horizontal control system is subject to approval of the Construction Manager, and, if at any time the method fails to provide accurate location for the amendment placement operations, the Construction Manager may suspend operations. Any lost time due to suspension of operations will be the sole responsibility of the Contractor. The Contractor may be directed by the Construction Manager to remove misplaced material at the sole responsibility of the Contractor.

I. Vegetation removal within the vernal pools shall be limited to cutting and removal of dogwood shrubs and similar small woody vegetation unless approved by the Construction Manager. Any vegetation removal from the vernal pools shall leave the root system in place. Vegetation removal shall be performed under the oversight of the Construction Manager and a Project Wetland Scientist and in accordance with Section 31 11 00 – Clearing and Grubbing.

J. The Contractor shall adequately blend and prepare sand/PAC amendment materials to achieve a well-homogenized blend prior to placement. The Contractor shall use approved measurement techniques to accurately quantify the amount of sand and PAC mixed together. Excavator bucket mixing of sand and PAC will not be a permissible method of blending.

K. Amendment materials shall be placed in a method to reduce damage or impact to existing vernal pool soils and vegetation to the extent practicable. Any equipment entering a vernal pool footprint or operating adjacent to the vernal pool shall be low-ground-pressure equipment positioned atop construction mats.

L. The Contractor shall place amendment materials in accordance with the application rate requirements described in Parts 3.04.B and 3.04.C.

M. The Contractor shall provide details and methodology to accurately track the quantity of material placed per ACU in accordance with the specified requirements.

N. Woody debris may be removed from vernal pools to facilitate access but shall be placed back into the vernal pools following amendment application and mixing, where applicable. Any woody debris removed shall be temporarily staged near the vernal pool and then replaced after amendment placement in the same general location and density as the pre-test conditions.

3.03 AMENDMENT PLACEMENT RAMP-UP TEST

A. The Contractor shall demonstrate the efficacy of sand/PAC amendment material blending, placement and verification methods for the sand/PAC amendment and pelletized PAC delivery product prior to implementing full-scale amendment placement operations. The amendment placement ramp-up test will be conducted in one ACU of the first vernal pool where each amendment type is placed.

B. The Contractor shall conduct testing of the sand/PAC amendment blending operations to demonstrate the components of the sand/PAC amendment have been adequately blended and prepared. The Contractor shall provide advance notice to the Construction Manager who will be present to observe the blending test. The Contractor shall submit the results of the blending test in a form acceptable to the Construction Manager.

C. Following the Construction Manager's approval of the sand/PAC amendment blending test, the Contractor shall complete separate ramp-up amendment placement tests for each amendment type. The ramp-up tests shall incorporate the Contractor's means and methods presented in the Amendment Placement Plan to demonstrate and model full-scale placement operations. The ramp-up tests shall be conducted over one ACU for each amendment type. The ramp-up testing will be conducted to verify that the performance requirements for amendment placement are achieved as specified in Parts 3.04 and 3.05. The Contractor shall provide advance notice to the Construction Manager, who will be present to observe the placement tests. The Contractor shall submit the results of the ramp-up testing in a form acceptable to the Construction Manager.

D. At the initiation of post-amendment-placement soil mixing (Part 3.06), the Contractor shall conduct initial soil/amendment mixing in one ACU for each mixing method in 5A-VP-15 in the presence of the Construction Manager to demonstrate adequate mixing as intended by the pilot study objectives. Observations of the soil mixing ramp-up test shall be documented and reviewed with the Construction Manager to determine if any modifications to the soil mixing approach are warranted for the full-scale mixing operation. The Contractor shall submit the results of the mixing tests in a form acceptable to the Construction Manager.

E. If results of the ramp-up testing dictate modifications to the Contractor's approach, the Contractor shall provide a detailed plan in writing to the Construction Manager for review and approval. The Contractor shall then conduct additional ramp-up testing until the Contractor demonstrates achievement of performance requirements. If the ramp-up testing results in modifications to placement operations and if directed to do so by the Construction Manager, the Contractor shall revise and resubmit the Amendment Placement Plan for Construction Manager approval.

3.04 AMENDMENT PLACEMENT

A. The Contractor shall place the amendments in the vernal pools as indicated on the Design Drawings in accordance with this Specification and as detailed in the approved Amendment Placement Plan. Any deviations shall be reviewed and accepted by the Construction Manager prior to execution.

B. Sand/PAC Amendment Performance Requirements:

1. The Contractor shall place the sand/PAC amendment to achieve a minimum PAC application rate of 0.79 pound per square foot (lb/ft^2; approximately 34,400 pounds per acre) in each ACU.
2. The sand/PAC amendment shall be applied uniformly across the placement area.
3. The overall quantity of sand/PAC amendment placed in each ACU shall consider the weights of each material type and the size of each ACU.
4. The sand/PAC amendment application rate in each ACU will be verified based on material tracking and other measures as detailed in Part 3.05.

C. Pelletized PAC Delivery Product Performance Requirements:

1. The Contractor shall place the pelletized PAC delivery product to achieve a minimum PAC application rate of 0.79 lb/ft^2 (approximately 34,400 pounds per acre) in each ACU.
2. The pelletized PAC delivery product shall be applied uniformly across the placement area.
3. The overall quantity of pelletized PAC delivery product placed in each ACU shall consider the weight percentage of PAC in the product and size of each ACU.
4. The pelletized PAC delivery product application rate in each ACU will be verified based on material tracking and other measures as detailed in Part 3.05.

D. Sand/PAC amendment placement shall be accomplished in such a manner that the materials form a uniform layer of consistent thickness throughout the designated placement area.

E. Following the verification of sand/PAC amendment placement in vernal pools 5A-VP-9 and 5A-VP-15, the Contractor shall implement mechanical mixing techniques as described in Part 3.06.

F. The Contractor shall use an appropriate placement method to minimize disturbance to the underlying soils, to the extent practicable, except in vernal pools 5A-VP-9 and 5A-VP-15 where mixing will occur following amendment placement.

G. The Contractor shall sequence the placement such that placement does not disturb previously placed sand/PAC amendment or pelletized PAC delivery product.

H. If there is standing water in the vernal pools designated for sand/PAC amendment that interferes with the amendment application and it is anticipated that the pools will not dry out in a time frame that will allow for completion during the construction season, the Contractor shall work collaboratively with the Construction Manager to develop a plan to pump the standing water in the vernal pools to the Housatonic River in a manner that minimizes entrainment of sediments at the suction end to avoid impacts to the river. If

pumping of standing water to the river is required, the Contractor shall prepare a pumping and discharge plan that will be subject to approval by the Construction Manager before implementation. Prior to the Construction Manager approval of the plan, U.S. Environmental Protection Agency (EPA) approval of the proposed pumping and discharge approach will be required.

I. The Contractor's methods for the pelletized PAC delivery product application shall be effective to allow placement of the amendment through up to 3 feet of standing water.

3.05 AMENDMENT VERIFICATION

A. Amendment verification will be conducted on an ACU basis, which will be established as described in Part 3.02.A.

B. Verification of amendment placement will be conducted using the following lines of evidence in the following order:

1. Material Tracking Data: The Contractor shall perform real-time tracking and generate documentation of the volume and weight of each type of amendment placed in each ACU. The Contractor shall submit reports, in a form acceptable to the Construction Manager, that identifies the required amount of PAC for each ACU, the volume and weight of the material placed in each ACU, the amendment/material type, the areal extent where the material was placed, the date and time when the material was placed, and the weight percentage of PAC in the material to demonstrate that the amendment has been placed within each ACU to achieve the performance requirements in Parts 3.04.B and 3.04.C.
2. Construction Manager Observations: The Construction Manager will conduct visual observations to verify the material placement activities are conducted by the Contractor in a manner that provides uniform distribution of the amendment materials for each vernal pool.
3. Spatial Coverage. To document that the material has been placed over the required footprint, the Contractor's Quality Control Officer shall conduct visual observations of the placement and generate mapping, in a form acceptable to the Construction Manager, that shows the extent of amendment application with an overlay of the ACU boundaries. The mapping shall be cross referenced to the Material Tracking Data (Part 3.05.B.1).
4. Photographic Documentation: The Contractor shall submit photographic documentation that demonstrates uniform distribution of the amendment materials throughout each vernal pool.
5. Physical Thickness Measurements: The Contractor shall collect physical measurements of the placed thickness of the amendment at a minimum frequency of one measurement per ACU as a line of evidence to demonstrate uniform placement. The physical measurement locations shall be selected randomly within

each ACU and shall not be selected to exclusively target favorable data points or the centroids of each ACU. The Contractor shall submit a map showing the physical measurement locations and a table documenting the measured thicknesses.

C. The Contractor must perform the physical thickness measurements in the presence of the Construction Manager. If the Construction Manager determines that the amendment performance requirements in Parts 3.04.B or 3.04.C have not been achieved, the Contractor shall implement corrective action and produce additional documentation to demonstrate compliance with the performance requirements.

3.06 SAND/PAC AMENDMENT MIXING

A. Following placement and verification of the sand/PAC amendment in vernal pool 5A-VP-15, the sand/PAC amendment shall be mechanically mixed into the surface soils in vernal pool 5A-VP-15 using two different methods where shown on the Drawings.

1. Where designated, tilling of the upper 6 inches of soil shall be performed following sand/PAC placement. The intent of this approach is to turn over the soils to distribute the soil/PAC amendment within the upper 6 inches of the vernal pool soils. This approach will be more aggressive and is expected to result in more thorough mixing but is anticipated to present greater implementability challenges due to vegetation, roots, and woody debris.
2. Where designated, tines shall be used to penetrate the surface soil following PAC/sand placement. The intent of this approach is to push some of the PAC into the top 6 inches of the subsurface and create openings for the PAC to migrate downward. This approach will be less aggressive than the tilling approach and is expected to result in less effective mixing but is anticipated to be subject to fewer implementability challenges.

B. The methods and equipment to achieve the two mixing approaches shall be developed by the Contractor and presented in its Amendment Placement Plan.

C. The mixing method to be used for vernal pool 5A-VP-9 will be determined based on the mixing observations and effectiveness observed for vernal pool 5A-VP-15 in consultation with the Construction Manager.

D. The target depth for amendment-soil mixing is the upper 6 inches of soil. The Contractor shall design its mixing equipment and methods to prevent mixing deeper than the upper 6 inches of soil.

E. The Contractor shall mix the placed amendments into the upper 6 inches of soil within the vernal pools in accordance with this Specification and as detailed in the approved

Amendment Placement Plan. Acceptable methods for post-placement amendment-soil mixing include the following:

1. Tilling using laborer-operated or low-ground-pressure equipment
2. Tines using laborer-operated or low-ground-pressure equipment. Tines shall be long enough to penetrate 6 inches into the subsurface and spaced 6 inches apart.
3. Alternate mixing methods may be proposed by the Contractor and will be subject to approval by the Construction Manager.
4. Bucket mixing of amendment and soil will not be accepted.

F. Mixing shall not result in loss of placed amendment materials outside the limits of the vernal pool or significant redistribution of placed amendment materials within the limits of the vernal pool. If loss or redistribution of placed amendment materials occurs during mixing (i.e., amendment materials sticking to mixing equipment), the Contractor shall discontinue mixing operations and modify the mixing operations in consultation with the Construction Manager.

G. Vegetation removal beyond what is required in the unmixed vernal pools may be required in vernal pools 5A-VP-9 and 5A-VP-15 to facilitate adequate mixing of the vernal pool soils. Any vegetation proposed for removal will be subject to approval by the Construction Manager, who will make such determinations in consultation with a Project Wetland Scientist.

H. Woody debris may be removed from vernal pools 5A-VP-9 and 5A-VP-15 to facilitate mixing, as well as in other vernal pools to facilitate access, but shall be placed back into the vernal pools following mixing. Any woody debris removed shall be temporarily staged near the vernal pool and then replaced after amendment placement in the same general location and density as the pre-test conditions.

I. In addition to the mixing to be pilot tested in vernal pools 5A-VP-9 and 5A-VP-15, the implementability of both types of mixing (till and tine mixing) will be evaluated for different vegetation types at relatively small plots within other pools (including areas of dogwoods, areas of other types of wetland vegetation, and where larger tree roots are present). The exact number, areas, and sizes of these test plots will be determined in the field in consultation with the Construction Manager and a Project Wetland Scientist.

J. After acceptance of amendment placement by the Construction Manager, the Contractor shall conduct a post-placement topographic survey of the vernal pool to document as-built conditions in accordance with Section 02 21 00 – Surveys.

END OF SECTION

PART 1 – GENERAL

1.01 DESCRIPTION

A. Scope:

1. The Contractor shall provide all labor, materials, tools, equipment, and incidentals as shown, specified, and required to furnish and install soils and aggregates for construction of components as indicated on the Design Drawings and in this Specification. The Contractor is responsible for all sampling and testing of soil and aggregate materials to verify compliance with the specified requirements.

B. Related sections

1. Section 13 80 01 – Temporary Access Roads and Staging Areas
2. Section 13 90 01 – Amendment Placement – Vernal Pools
3. Section 31 23 00 – Excavation and Fill
4. Section 32 30 00 – Site Restoration, Planting, and Seeding

1.02 REFERENCES

A. Reference Standards:

1. The following standards are referenced in this Section:
   a. ASTM International (ASTM) D1140, Standard Test Methods for Amount of Material in Soils Finer Than No. 200 (75 µm) Sieve
   b. ASTM D1557, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort of 56,000 ft-lb/ft^3, also known as "Modified Proctor"
   c. ASTM D2487, Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)
   d. ASTM D3980, Standard Test Method for Direct Shear Test of Soils Under Consolidated Drained Conditions.
   e. ASTM D4318, Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
   f. ASTM D6913, Standard Test Methods for Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis
   g. ASTM 6938 Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
   h. U.S. Environmental Protection Agency (USEPA) SW-846 Method 6010, Inductively Coupled Plasma-Atomic Emission Spectrometry

1.03 QUALITY ASSURANCE

A. Materials, procedures, operations, and methods shall be in strict conformance with the Contract Documents. Materials shall be subjected to strict quality control monitoring as detailed herein. The placed materials shall conform exactly to the Contract Documents, except as otherwise authorized in writing by the Construction Manager.

B. Sampling and analysis of soil materials used for construction shall be conducted by the Contractor in accordance with GE's revised Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP) (Arcadis 2023[1]) and Sections 2 and 3 of the Soil Cover/Backfill Characterization Plan included as Attachment B of GE's revised Updated Project Operations Plan (Arcadis 2025[2]).

1.04 SUBMITTALS

A. The Contractor shall submit background information for each proposed material source to the Construction Manager for review as part of the source's initial screening for acceptance. At a minimum, background information shall include the following:

1. The location of the material source(s), including state, county, municipality, address, block, and lot numbers
2. The names, contact information, and relationship of persons involved with the source material preparation and transport of the fill from the material source to the receiving site
3. A description of the borrow site including use history
4. Identification of specific areas within the borrow site on a scaled site plan where material will be obtained for use at the project site
5. Identification of specific areas within the borrow site on a scaled site plan where samples for analytical and geotechnical testing will be obtained
6. A description of sampling methodology to be used to obtain geotechnical and analytical samples
7. The results of geotechnical testing previously performed and a description of the geotechnical properties of the fill material and indication that the material meets the project's geotechnical specifications

B. The Contractor shall submit results of laboratory chemical and physical analysis of each material type from each borrow pit as required in this Technical Specification.

[1] Arcadis, 2023. *Field Sampling Plan / Quality Assurance Project Plan GE-Pittsfield/Housatonic River Site.* Prepared for the General Electric Company, Pittsfield, Massachusetts. December 2023.
[2] Arcadis, 2025. *Project Operations Plan GE-Pittsfield/Housatonic River Site.* Prepared for the General Electric Company, Pittsfield, Massachusetts. May 2025.

C. The Contractor shall submit one 5-gallon bucket with a sample of each proposed type of material for inspection by the Construction Manager.

1.05 DELIVERY

A. Notify the Construction Manager no less than 1 week in advance of delivery of all soil fill materials.

PART 2 – PRODUCTS

2.01 MATERIALS

A. Sand (for mixing with Powdered Activated Carbon for amendment placement)

1. Shall be free from debris, loam, clay, roots, sod, rubbish, surface coatings, foreign material, or other deleterious materials
2. Shall be sampled and meet criteria for geotechnical and chemical analysis as defined by this Specification
3. Shall have gradation in accordance with Table 1

Table 1: Sand Gradation Requirements

Sieve Size	Percent Passing by Weight
4	100
16	60 - 100
40	20 - 100
100	0 - 30
200	0 - 10

B. Topsoil (for use in backfilling the vernal pools and other restoration uses)

1. Topsoil shall be fertile, friable, natural-loam surface soil capable of sustaining vigorous plant growth and free of any admixture of subsoil, clods of hard earth, plants or roots, sticks, stones larger than 1 inch in diameter, pests and pest larvae, or other extraneous material harmful to plant growth.
2. Topsoil shall have the following properties:
   a. A loam texture with Unified Soil Classification System classification of SM (silty sands and sand-silt mixtures) or SC (clayey sands and sand-clay mixtures) granular soil material
   b. A weak granular structure and friable consistency
   c. Minimum 8% organic matter by weight (ASTM D2974)
   d. A pH between 5.6 and 6.9 in accordance with ASTM D4972

3. Prior to acceptance, imported topsoil samples shall be analyzed for texture, organic matter content, nutrients, and pH to verify they meet the above specifications or are otherwise acceptable to the Project Wetland Scientist.
4. Topsoil shall meet the following chemical criteria, per the Soil Cover/Backfill Characterization Plan:
   a. Polychlorinated biphenyl (PCB) Aroclors shall be nondetect or less than 0.021 milligram per kilogram (mg/kg).
   b. Volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs) shall be nondetect.
   c. Metals concentrations shall meet the criteria listed on Table B-1 in Section 3.1.2.2 of the Soil Cover/Backfill Characterization Plan.

C. Dense Graded Aggregate (for Temporary Access Roads and Staging Areas)

1. Material shall be a naturally or artificially graded mixture of natural or crushed gravel, crushed stone, or natural or crushed sand. Crushed slag is unacceptable.
2. Material shall meet the gradation requirements for Dense Graded Crushed Stone for Sub-Base in Table M2.01.7-1 of the State of Massachusetts Department of Transportation Standard Specifications for Highways and Bridges, 2022, as follows:

Particle Size or U.S. Sieve No.	Percentage by Weight Passing
2 inches	100
1-1/2 inches	70–100
3/4 inch	50–85
No. 4	30–55
No. 50	8–24
No. 200	3–10

3. Material shall meet the following chemical criteria, per the Soil Cover/Backfill Characterization Plan:
   a. PCB Aroclors shall be nondetect or less than 0.021 mg/kg.
   b. VOCs and SVOCs shall be nondetect
   c. Metals concentrations shall meet the criteria listed on Table B-1 in Section 3.1.2.2 of the Soil Cover/Backfill Characterization Plan.

2.02 SOURCE QUALITY CONTROL

A. Provide imported topsoil and aggregate material from a permitted mine, pit, or quarry, or a commercial processing facility specializing in the manufacture of topsoil.

B. Initial Borrow Source Assessment: The Contractor shall conduct an initial assessment in coordination with the Construction Manager (if not previously conducted for the proposed material and borrow source) to evaluate whether the materials at the borrow

source are potentially suitable for use, subject to further evaluation through sampling and analysis. This assessment will likely include some or all of the following: a field visit to evaluate the materials and the location of the materials and discussions with the owner of the materials or the property owner regarding the origin of the materials, the historical use of the borrow source area, and any chemical/physical characterization data that may already exist for the material at the source. The level of detail involved in this initial assessment will depend on the candidate materials and will be limited if the potential materials are undisturbed in-place materials. If the initial assessment indicates the materials at the borrow source are potentially usable and thus warrant further evaluation, the Contractor shall coordinate with the Owner for sampling and testing of the potential materials as described in this Technical Specification. The initial assessment shall also meet the requirements described in the Soil Cover/Backfill Characterization Plan.

C. The Contractor shall collect samples for geotechnical and chemical analyses in accordance with the specifications herein.

2.03 MATERIAL TESTING REQUIREMENTS

A. The Contractor shall coordinate, collect, and submit the sample for laboratory analysis and pay for laboratory testing of each material to verify conformance with the Contract Documents.

B. Sampling for geotechnical and chemical quality of the imported materials shall be performed at the source location(s) prior to shipment to the Site unless otherwise approved by the Construction Manager. Do not ship topsoil or aggregate material to the Site until the proposed material, source, and Supplier are accepted by the Construction Manager.

C. Geotechnical Testing: If the results of the Initial Borrow Source Assessment indicate the candidate borrow source and materials may be suitable for use, the Contractor shall obtain representative samples in coordination with the Construction Manager of each of each material types for laboratory geotechnical testing to verify conformance with the Contract Documents.

1. Geotechnical testing shall be completed prior to placement of the material and at a frequency of one per 2,000 cubic yards (cy) of imported off-site materials.
2. Geotechnical sample testing results shall be provided to the Construction Manager to verify acceptability of the soil materials for on-site use. Fill material may not be accepted for import until results of geotechnical analysis are approved by the Owner.
3. Geotechnical testing for sand shall include the following tests:
   a. Grain size distribution (ASTM D6913 or C136)
   b. Moisture content (ASTM D2216)

c. Weight per unit volume of uncompacted materials (ASTM D4254 or C29)
d. Particle specific gravity (ASTM D854 or C128)

4. Geotechnical testing for topsoil shall include the following tests:
   a. Grain size distribution (ASTM D6913 or C136)
   b. Material classification (ASTM D2487)
   c. Moisture content (ASTM D2216)
   d. Organic content (ASTM D2974)
   e. pH (ASTM D4972)

5. Geotechnical testing for dense graded aggregate shall include the following tests:
   a. Grain size distribution (ASTM D6913 or C136)
   b. Weight per unit volume of uncompacted materials (ASTM D4254 or C29)

D. Chemical Testing: If the results of the Initial Borrow Source Assessment indicate the candidate borrow source and materials may be suitable for use, the Contractor shall obtain representative samples of each material (sand, topsoil and dense graded aggregate), in coordination with the Construction Manager, for chemical testing of the materials. Chemical testing of stone materials (e.g., riprap, cobbles, boulders, and drainage stone) is not required, provided that those materials are from a source found to be acceptable in the Initial Borrow Source Assessment. Chemical testing shall be performed as follows:

1. The frequency of sampling/analysis for chemical contaminants is dependent on the source/location of the proposed off-site soil fill material:
   a. If the candidate material is from an undisturbed in-place source (e.g., an active gravel or borrow pit), the source shall provide a letter certifying that the material is virgin, and one representative sample of the material shall be collected and analyzed. The analytical data from this chemical characterization shall be submitted to the Construction Manager, who will compare the data with the criteria described in Section 3.1.2.2 of the Soil Cover/Backfill Characterization Plan. If the data are acceptable, the Construction Manager will submit sample test results to USEPA for approval. The results of this sample will be considered to represent the materials that originate from this virgin source for up to 20,000 cy of material from the borrow source or until such time as the physical characteristics of the source location significantly change.
   b. For off-site materials that have not been certified as a virgin source, the frequency of borrow source characterization testing shall involve the collection of one composite sample for each 2,000 cy from the borrow source and for each distinct material type specified in the technical design documents. If the volume of material to be characterized is less than 2,000 cy, one composite sample shall still be collected from that material. Each composite sample shall be composed of 10 discrete “grab” subsamples that shall be collected at spatially distributed locations within the source material and composited into a single sample to be submitted to a laboratory for the

appropriate chemical analyses identified in this Specification. A photoionization detector (PID) headspace screening shall be performed for all 10 subsample locations used to form the composite sample. However, for analysis of VOCs, each sample shall be a single discrete grab sample collected at one of the 10 subsample locations used to form the composite sample. The analytical data from this chemical characterization shall be submitted to the Construction Manager, who will compare the data with the criteria described in Section 3.1.2.2 of the Soil Cover/Backfill Characterization Plan. If the analytical results from this sampling are acceptable, the Owner will submit sample test results to USEPA for approval. The initial sampling frequency shall be used to characterize up to 2,000 cy of material from the borrow source.

c. If more than one off-site source is proposed for the soil fill material, samples shall be collected and analyzed from each source at the appropriate frequency provided in the above Subparagraphs.

2. Each material type shall be collected and sampled in accordance with the Soil Cover/Backfill Characterization Plan and, in particular, shall be tested as follows:
   a. Each borrow source material sample shall be analyzed for PCBs (as Aroclors) and the VOCs, SVOCs, and metals listed in Appendix IX of 40 *Code of Federal Regulations* 264, plus benzidine, 2- chloroethyl vinyl ether, and 1,2-diphenylhydrazine.
   b. Each borrow source material sample collected for chemical characterization testing shall also be screened using a PID as described in Appendix A2 (Standard Operating Procedure for Photoionization Detector Field Screening) of GE's revised (2023) FSP/QAPP to verify that the materials do not contain elevated levels of volatile organic vapors. All samples shall be collected, analyzed, and validated in accordance with that revised FSP/QAPP or any USEPA-approved revision of that document.
3. Topsoil shall be evaluated for pH and organic content.
4. Chemical testing shall be completed prior to shipment of soil material to the site. Soil material may not be accepted for import to the site until results of chemical analysis are approved by the Construction Manager.

END OF SECTION

SECTION 31 11 00 – CLEARING AND GRUBBING

PART 1 – GENERAL

1.01 DESCRIPTION

A. Scope:

1. The Contractor shall providing all labor, materials, equipment, and incidentals required to perform clearing and grubbing as needed to allow completion of pilot test activities.
2. The Contractor shall be responsible for removing and disposing or reusing of trees, shrubs, brush, logs, vegetation, rubbish, and other objectionable material.
3. The Contractor shall implement best management practices (BMPs), controls, and other measures necessary to maintain compliance with the project environmental and quality of life criteria described in Section 01571 – Operations Environmental Restrictions and Controls.

B. Related Sections:

1. Section 01571 – Operations Environmental Restrictions and Controls
2. Section 13 80 01 – Temporary Access Roads and Staging Areas
3. Section 31 23 00 – Excavation and Fill
4. Section 31 25 00 – Erosion and Sediment Controls
5. Section 13 90 01 – Amendment Placement – Vernal Pools

1.02 SUBMITTALS

A. The Contractor shall prepare and submit a Project Clearing and Grubbing Plan for review and approval by the Construction Manager prior to mobilization as part of the Contractor's Operations Plan that outlines the areas, methods, and equipment to be used for clearing and grubbing.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.01 PREPARATION

A. Protection:

1. Protect existing site improvements, including streets, drives, underground and aboveground utilities, and adjacent property and structures throughout the Work.

Repair damage caused by the Contractor to original condition or replace in kind to the satisfaction of the Construction Manager.

2. Protect trees, shrubs, and vegetation to remain by providing temporary fencing, barricades, wrapping, or other methods as needed.
3. Do not remove trees without the approval of the Construction Manager.

B. Site Preparation:

1. Delineation of Clearing and Grubbing Limits:
   a. Locate and clearly flag trees, vegetation, and other items to remain within the limits of clearing and grubbing.
   b. Provide flagging to delineate limits of areas to be cleared or grubbed. Review at the Site with the Construction Manager before initiating clearing and grubbing Work.
   c. Replace flagging that is lost, removed, or destroyed until clearing and grubbing Work is complete and the Construction Manager allows removal of flagging.
2. Erosion and Sediment Controls:
   a. Install applicable erosion and sediment controls before initiating clearing and grubbing Work.
   b. Comply with erosion and sediment control requirements of Section 31 25 00 – Erosion and Sediment Controls.
   c. Adjust, relocate, or install additional erosion and sediment controls as clearing and grubbing Work progresses to previously uncleared, ungrubbed areas of the Site.

3.02 CLEARING AND GRUBBING

A. Remove all trees less than 6 inches in diameter at breast height, shrubs, brush, logs, vegetation, rubbish, and other surface material as needed to complete the excavation within the limits of the excavation test pools. Stumps and roots shall be removed from within soil excavation areas during excavation activities and managed as contaminated material.

B. Vegetation removal in treatment vernal pools will be completed prior to amendment placement as needed, to be determined in conjunction with the Contractor and Project Wetland Scientist. The goal is to minimize vegetation removal to minimize impacts to the vernal pools. At a minimum, it is anticipated that cutting of dogwoods and similar small woody vegetation will be required.

C. Remove small trees, shrubs, brush, logs, vegetation, rubbish, and other material within the support areas and associated with temporary access road construction and improvement only as necessary and as approved by the Construction Manager. Blanket

tree removal is prohibited. The goal is to minimize impacts to trees, shrubs, and vegetation in these areas.

D. Mature trees in all areas with a trunk diameter at breast height greater than 6 inches will be left in place to the extent practicable, under oversight by the Construction Manager. This will necessitate special excavation adjacent to mature trees within and adjacent to the excavation area as detailed in Section 31 23 00 – Excavation and Fill.

E. Where tree cutting is necessary, trees shall be cut flush with the ground and roots left in place to the extent practicable.

F. Trees and shrubs to remain that have been damaged or require trimming shall be treated and repaired under the oversight of the Construction Manager.

3.03 DISPOSAL OF CLEARED AND GRUBBED MATERIALS

A. The aboveground portions of all cleared vegetation not impacted by contaminated soil will be managed on site in a manner supportive of the local ecology, such as spreading of smaller and chipped material for erosion control; placement of tree trunks, brush, and branches within the remediated vernal pools as habitat features; or creation of adjacent brush or log piles as approved by the Construction Manager.

END OF SECTION

PART 1 – GENERAL

1.01 DESCRIPTION

A. Scope:

1. The Contractor shall provide all labor, materials, equipment, and incidentals required to perform all excavating, filling, and grading as shown, specified, and required to complete the Work per this Specification and the Design Drawings.
2. Perform excavation and fill Work in a manner that prevents damage to property, structures, utilities, and trees larger than 6 inches in diameter at breast height (DBH).
3. Perform excavation and fill Work within the limits and to the depths shown or indicated on the Design Drawings.
4. Excavation and fill equipment operated within and adjacent to the vernal pools shall be low-ground-pressure equipment and operated from construction mats to distribute the equipment loads and minimize disturbance or compaction of the underlying vernal pool soils, to the extent practicable.
5. Excavation and backfilling associated with vernal pools shall be conducted between July 1 and December 31. In addition, to the extent practicable, excavation and backfilling associated with vernal pools shall be performed when there is no or limited standing water in the vernal pools and when groundwater levels are lowest.
6. The Contractor shall implement best management practices (BMPs), controls, and other measures necessary to maintain compliance with the project environmental and quality of life criteria described in Section 01571 – Operations Environmental Restrictions and Controls.

B. Related Sections:

1. Section 01571 – Operations Environmental Restrictions and Controls
2. Section 02 21 00 – Surveys
3. Section 02 51 00 – Equipment Decontamination
4. Section 02 72 00 – Water Management
5. Section 02 81 02 – Transportation and Disposal of Waste Material
6. Section 31 05 13 – Soils and Aggregates
7. Section 31 11 00 – Clearing and Grubbing
8. Section 31 25 00 – Erosion and Sediment Controls
9. Section 32 30 00 – Site Restoration, Planting, and Seeding

10. Section 35 20 24 – Excavated Material Processing and Handling

1.02 SUBMITTALS

A. Excavation and Backfilling Plan: The Contractor shall prepare and submit an Excavation and Backfilling Plan as part of the Contractor's Operations Plan for review and approval by the Construction Manager prior to starting excavation Work. At a minimum, the Excavation and Backfilling Plan shall include the following:

1. Procedures, means, and methods for excavation, dewatering, and backfilling within the designated vernal pools. If different procedures or equipment will be used at different locations, indicate where each procedure and equipment item will be used.
2. Procedures to protect trees with a DBH greater than 6 inches.
3. Proposed methods for excavation and backfilling near trees that will remain in place by hand or using other methods that minimize disturbance to the root system.
4. List of proposed equipment for excavation, dewatering, and backfilling Work.
5. Details for material transport and staging, which include, at a minimum, transportation methods, schedules, and routing; locations of material staging areas; details for the equipment that will be used to transport excavated materials from the vernal pools to the material staging areas; and details for the equipment that will be used to transport fill materials from the source locations to the material staging areas and from the material staging areas to the designated vernal pools.
6. Details of the estimated or effective ground pressure for any equipment working within the vernal pools, including equipment weights and methods to distribute the equipment loads and minimize disturbance and compaction of the vernal pool soils. These details shall include the proposed types and sizes of construction matting that will be used and describe how the matting will be placed, maneuvered, and removed to facilitate the excavation and backfilling operations.
7. Procedures to excavate and handle excavated materials characterized as Toxic Substances Control Act (TSCA) materials separately from non-TSCA materials. The limits of TSCA and non-TSCA characterization areas within the excavation areas are shown on the Design Drawings.
8. Procedures, means, methods, and BMPs that will be implemented to minimize dust generation during excavation, material handling, and backfilling.
9. Planned sequence of excavation and backfilling operations.
10. Detailed schedule of excavation and backfilling Work.

B. Delivery Tickets: Submit a copy of the delivery ticket for each load of fill material delivered to the Site. Each delivery ticket shall indicate Supplier name and source address, project name, contract number, date, material type, MassDOT item number when applicable, and quantity delivered.

1.03 SITE CONDITIONS

A. Subsurface Information:

1. Shallow subsurface conditions generally consist of woodland soils (generally silty loam) that may contain significant tree and other vegetation roots and woody debris. Soils may be inundated, saturated, or partly saturated.

B. Existing Structures and Utilities:

1. The Contractor shall be responsible for identification, location, and protection of all utilities and structures (e.g., manholes, utility poles, sewer lines, water lines, gas lines, overhead lines, and other structures/utilities) prior to and during the Work.

2. There are no known manmade aboveground structures within or immediately adjacent to the vernal pool excavation areas. Aboveground and subsurface utilities are known to be present near some vernal pool excavation areas, along potential access routes, and at or near anticipated support areas. Known subsurface utilities include a sanitary sewer that runs along easements near several of the vernal pools and beneath proposed access routes. Known aboveground utilities include overhead utility poles and lines along proposed access routes. In addition, known underground and aboveground utilities are present at work area entrances along Pomeroy Avenue and Holmes Road.

3. The Contractor shall be responsible for coordinating with Dig Safe (i.e., 811 or www.digsafe.com) to identify the locations of underground utilities at the start of the work and, as necessary, coordinating with utility owners regarding any potential protection requirements. Specifically, the Contractor shall coordinate with the City of Pittsfield to identify the locations, depths, and any protection requirements for the sanitary sewers along proposed access routes and near several vernal pools.

4. Existing aboveground and underground structures, utilities, and facilities shall be protected from damage by the Contractor. The Contractor shall be solely responsible for immediately repairing and restoring existing structures and utilities, and facilities if damaged by the Contractor or the Contractor's operations.

5. Movement and operation of construction equipment over underground utilities shall be at the Contractor's sole risk and only after the Contractor has prepared and submitted to the Construction Manager and utility owners (as applicable), and received acceptance therefrom, a plan describing Contractor's analysis of the

loads to be imparted and the Contractor's proposed measures to protect structures and underground utilities.

6. Do not interrupt existing utilities, except when such interruption is allowed in writing by the Construction Manager after acceptable temporary utility services are provided by the Contractor for the affected structure or property.

PART 2 – PRODUCTS

2.01 MATERIALS

A. See Section 31 05 13 – Soils and Aggregates.

PART 3 – EXECUTION

3.01 INSPECTION

A. The Contractor shall conduct field reconnaissance and survey activities as necessary to plan the Work and identify any potential obstacles.

B. Provide the Construction Manager with sufficient notice and with means to examine areas and conditions under which excavating, filling, and grading Work will be performed.

C. Do not proceed with the Work until unsatisfactory conditions are corrected.

3.02 PREPARATION

A. Survey Control: The Contractor shall establish and maintain survey control prior to and throughout the duration of work as described in Section 02 21 00 – Surveys.

B. Pre-Construction Survey: The Contractor shall conduct pre-excavation topographic surveys in accordance with Section 02 21 00 – Surveys to document baseline elevations and conditions of the vernal pool soil removal areas. As part of this survey, the Contractor to stake the limits of the floodplain soil removal areas.

C. Erosion and Sediment Controls: Provide temporary erosion and sediment controls in accordance with the Design Drawings and Section 31 25 00 – Erosion and Sediment Controls.

D. Dust, Air Quality, Noise, and Odor Controls: Provide dust, air quality, noise, and odor controls in accordance with Section 01571 – Operations Environmental Restrictions and Controls.

E. Site Preparation:

1. Clearing and Grubbing: The Contractor shall conduct pre-excavation clearing and grubbing as necessary to facilitate the excavation activities, but such activity shall be minimized to the extent practicable. Comply with Section 31 11 00 – Clearing and Grubbing.

F. Temporary Barriers:

1. Provide temporary barriers or demarcations surrounding excavations and excavation work areas to provide temporary protection to persons and property. The barriers shall have openings only at vehicular, equipment, and worker access points.

2. During nonworking hours, completely enclose all sides of excavation with temporary barriers or demarcations.

3.03 DEWATERING

A. General:

1. Provide and maintain adequate drainage and dewatering equipment to manage and remove surface and Construction Water as defined in Section 02 72 00 – Water Management.

B. Temporary Dewatering System:

1. It is anticipated that the soil excavation will be performed in summer or fall when there is no standing water within the vernal pools. If water is encountered, the Contractor shall design, provide, operate, and maintain dewatering of the excavation area as necessary to facilitate dewatering of excavated soils, verification of excavation depths, and placement of backfill. The actual methods shall be determined by the Contractor based on the amount of water observed and other location-specific factors.

2. Locate elements of the temporary dewatering system to allow continuous dewatering operation without interfering with the Work to the extent practicable.

C. Disposal of Water Removed by Dewatering System:

1. Water resulting from excavation and fill area dewatering shall be temporarily stored and managed in accordance with Section 02 72 00 – Water Management.

3.04 EXCAVATION

A. The Contractor shall excavate soils to the extents and depths as shown, specified, and required in the Design Drawings. Excavation shall include removing and handling of earth, rock, woody debris, and other materials within the excavation limits. The over-excavation allowance within the vernal pool soil removal areas is 3 inches below the

target removal depths. The Contractor shall minimize over excavation to the maximum extent possible.

B. The Contractor shall excavate, handle, stage, segregate, and dispose of excavated materials characterized as Toxic Substances Control Act (TSCA) materials separately from non-TSCA materials.

C. The Contractor shall clean material handling equipment that handles non-TSCA materials after having handled TSCA materials in accordance with Section 02 51 00 – Equipment Decontamination.

D. Mature trees within and adjacent to excavation areas with a DBH greater than 6 inches shall be left in place to the extent practicable, and excavation in close proximity to these trees shall be performed by hand or using other methods that minimize disturbance to the root system under oversight by a Project Wetland Scientist who will report to the Construction Manager.

E. The extent of open excavations shall be minimized to the greatest extent practical.

F. Excavation Protection: The Contractor shall be responsible for implementing measures to maintain stable excavations, as necessary. Provide excavation protection systems in accordance with laws and regulations to prevent injury to persons and property, including surface structures and underground facilities.

G. Prior to backfilling work, field measurements shall be made and documented to verify target removal depths have been achieved or exceeded at all locations as detailed in Section 02 21 00 – Surveys, and approval has been received from the Construction Manager. Deviations may be approved by the Construction Manager in areas where hand digging is not able to achieve the target removal depths due to the presence of tree roots.

H. Unauthorized Excavation: All excavations outside the lines and grades shown or indicated and not approved by Construction Manager, together with removing and disposing of the excavated material and backfilling with suitable material, shall be the sole responsibility of the Contractor. It shall be the Contractor's sole responsibility to fill unauthorized vernal pool excavations with topsoil to the satisfaction of the Construction Manager.

3.05 FILL AND COMPACTION

A. The Contractor shall not proceed with backfill placement until the Construction Manager has provided the Contractor with written notification that Work may commence.

B. The Contractor shall clean material handling equipment used to remove or handle PCB-containing soils before it handles "clean" backfill materials in accordance with Section 02 51 00 – Equipment Decontamination.

C. Provide all topsoil required for the finished grades as shown on the Design Drawings and as specified in Section 31 05 13 – Soils and Aggregates.

D. Topsoil material that includes unacceptable materials or does not meet the specifications shall be removed and replaced with approved material in accordance with the Contract Documents.

E. Unless otherwise approved by the Construction Manager, materials delivered to the Site shall be weighed on certified scales at the source location or other off-site location. The Contractor shall provide copies of delivery tickets for all backfill materials transported to the Site.

F. The Contractor shall stockpile backfill materials at the Site in sufficient quantities to meet schedule requirements.

G. Placement – General:

1. Place topsoil to re-establish pre-excavation grade as shown on the Design Drawings and as follows:
   a. The average post-placement elevation across each vernal pool shall be less than or equal to the average pre-excavation grade.
   b. Post-placement elevations at each survey point shall be within plus or minus 0.2 foot of the pre-excavation grade.
2. Document and verify that target backfill elevations have been achieved as detailed in Section 02 21 00 – Surveys subject to approval by the Construction Manager.
3. Place topsoil under moist conditions and track in place with low-ground-pressure equipment. Care shall be taken to avoid over-compaction by making only the minimum number of passes needed to adequately place and grade the topsoil.
4. Do not place topsoil when significant standing water is present on the surface of the area where topsoil will be placed unless otherwise approved by the Construction Manager. Manage Construction Water in accordance with Section 02 72 00 – Water Management.
5. Do not place topsoil in a frozen condition or on top of frozen material.
6. The Contractor shall repair observed or measured areas of settlement that occur within 7 days of placement. Make repairs and replacements as required within 5 days after being advised by the Construction Manager.

3.06 FIELD QUALITY CONTROL

A. Earthwork Inspections:

1. Perform daily or more frequent inspections of all excavations, adjacent areas, and protective systems as required by laws and regulations and this Section to ensure their continued effectiveness and integrity and the safety of exposed employees.
2. Inspections shall be performed by the Contractor's supervisor or competent person, as required, together with the Construction Manager, at the following times:
   a. Prior to the start of Work and as needed throughout the day.
   b. After every significant rainstorm or other hazard-increasing occurrence.
3. Document the date, time, and outcome of each inspection in a dedicated log. Submit a copy of the inspection log to the Construction Manager with the daily construction report.

END OF SECTION

PART 1 – GENERAL

1.01 DESCRIPTION

A. Scope:

1. A Stormwater Pollution Prevention Plan (SWPPP) will be prepared by others under the direction of the Owner to meet the substantive provisions of the latest National Pollutant Discharge Elimination System (NPDES) Construction General Permit. The SWPPP will describe controls and inspection requirements to reduce pollution from erosion and sedimentation during the construction project and protect nearby water resources. The SWPPP will be included in the Supplemental Information Package (SIP) that will be submitted for USEPA review and approval prior to construction.
2. The Contractor shall prepare any necessary information required by the Owner to support the SWPPP to be prepared by others, including the development of a location-specific Pollution Prevention and Erosion and Sedimentation Control Plan to control construction-related impacts, including erosion, sedimentation, and other pollutant sources during construction and land disturbance activities. In particular, the plan shall identify control measures to mitigate erosion and sedimentation into wetlands and vernal pools not intended for excavation or disturbance during the pilot study. The plan shall identify all stormwater management activities that are needed during land disturbance and construction, including source control and pollution prevention measures, best management practices (BMPs) to address erosion and sedimentation, stabilization measures, and procedures for operating and maintaining the BMPs, especially in response to wet weather events and frost. The plan shall include a schedule for sequencing construction and stormwater management activities that minimizes land disturbance by ensuring that vegetation is preserved to the extent practicable, and disturbed portions of the site are stabilized as quickly as possible.
3. The Contractor shall be responsible for implementation of the SWPPP for the duration of the Contract, including installing, maintaining, and inspecting the necessary controls and stabilization measures. Implementation of the SWPPP shall be required until the disturbed area is fully stabilized and the temporary erosion and sedimentation controls are removed. The Contractor shall not remove temporary erosion and sedimentation controls until written approval is provided by the Construction Manager.

B. Related Sections:

1. Section 13 80 01 – Temporary Access Roads and Staging Areas
2. Section 13 90 01 – Amendment Placement – Vernal Pools

3. Section 31 11 00 – Clearing and Grubbing
4. Section 31 23 00 – Excavation and Fill
5. Section 32 30 00 – Site Restoration, Planting, and Seeding
6. Section 35 20 24 – Excavated Material Processing and Handling

1.02 APPLICABLE CODES, STANDARDS, AND SPECIFICATIONS

A. Clean Water Act, NPDES Regulations (stormwater discharges), 40 CFR 122.26(c)(1)(ii)(C) and 40 CFR 122.44(k)

B. Massachusetts Clean Water Act, Water Quality Certification Regulations, 314 CMR 9.00 et seq., including 9.06 and 9.07

C. Massachusetts Clean Water Act and Wetlands Protection Act—Stormwater Management Standards, 310 CMR 10.05(6)(k) and 314 CMR 9.06(6)(a)

D. Massachusetts Department of Environmental Protection (MassDEP) Stormwater Handbook and Stormwater Standards

1.03 SUBMITTALS

A. The Contractor shall provide necessary information to support development of a SWPPP by others, including but not limited to a Pollution Prevention and Erosion and Sedimentation Controls Plan.

B. Submit the manufacturer's product data, specifications, and installation instructions for all products listed in the SWPPP and the Pollution Prevention and Erosion and Sedimentation Control Plan.

C. Documentation of inspection and maintenance of erosion and sedimentation controls as required by the SWPPP.

PART 2 – PRODUCTS

2.01 EROSION AND SEDIMENT CONTROLS

A. General:

1. Materials used for erosion and sediment controls shall be in accordance with the applicable regulatory requirements and the approved SWPPP.

B. Reinforced Silt Fencing:

1. Filter Fabric:
   a. Material: Geotextile shall comply with MassDEP guidelines for Soil Erosion and Sediment Control standard and specifications for silt fencing.
   b. Height shall be 16 inches minimum.
2. Fence Support Posts:
   a. Material: Hardwood or steel posts may be used.
      1) Hardwood posts shall be at least 1.25 by 1.25 inches in cross section.
      2) Steel posts shall be "T" or "U" in shape in cross section with a minimum weight of 1 pound per linear foot.
   b. Length shall be a minimum of 4 feet.
3. Wire Reinforcing: Wire fencing shall be a minimum of 14 gauge with a maximum 6-inch mesh opening or otherwise as approved by the Construction Manager.
4. Fabric fasteners shall be heavy-duty staples, wire ties, or other fasteners compatible with support post material.

C. Temporary Erosion Control Blankets: Type 3.B, in accordance with Federal Highway Administration FP-03, Section 713.17.

1. Product and Manufacturer: Provide one of the following:
   a. ECSC-2B by East Coast Erosion Blankets, LLC
   b. Curlex II FibreNet by American Excelsior Company
   c. Or equal as approved by the Construction Manager
2. Erosion control blankets shall be 100% natural and biodegradable and shall not incorporate plastic netting of any kind. Acceptable materials include jute, excelsior, straw or coconut fiber, and cotton.
3. Staples or anchoring stakes shall be 100% biodegradable.

D. Straw Wattles:

1. 12-inch diameter, biodegradable straw wattle, 100% weed free
2. Up to 24-month life expectancy
3. 1/8-inch mesh opening
4. Minimum strength of 180 pounds per square inch per ASTM International 5035

PART 3 – EXECUTION

3.01 EROSION AND SEDIMENT CONTROL

A. Installation and Maintenance:

1. General:
   a. No land disturbance activities shall commence until the SWPPP and Pollution Prevention and Erosion and Sedimentation Control Plan are approved as part of the SIP.
   b. Install and maintain erosion and sediment controls as specified in the approved SWPPP and Pollution Prevention and Erosion and Sedimentation Control Plan. Install erosion and sediment controls prior to and land disturbance activities and maintain the controls throughout the duration of the Work.
   c. Use necessary methods to successfully control erosion and sedimentation, including ecology-oriented construction practices, vegetative measures, and mechanical controls. Use BMP in accordance with applicable laws and regulations, and regulatory requirements to control erosion and sedimentation during the Project.
   d. Plan and execute construction, disturbances of soils, and earthwork by methods to control surface drainage from cuts and fills to prevent erosion and sedimentation. Provide temporary measures for controlling erosion and sedimentation as indicated in the SWPPP.
   e. Regulate drainage and control erosion and sedimentation in areas cleared for storage of materials or equipment, or for temporary facilities.
   f. Provide erosion and sediment controls, including stabilization of soils, at the end of each workday.
2. Provide all required erosion and sediment control measures for the areas where soil will be disturbed before commencing activities that will disturb soil at the Site.
3. Provide erosion and sediment control measures to divert rainfall runoff from entering work areas and open excavations.
4. Implement construction procedures associated with, or that may affect, erosion and sediment control to ensure minimum damage to the environment during construction.
5. Vegetation Removal:
   a. Remove only those shrubs, grasses, and other vegetation that must be removed for construction. Protect remaining vegetation.
6. Earthwork and Temporary Controls:
   a. Control erosion to minimize transport of silt from the Site into existing waterways and surface waters. Such measures shall include, but are not limited to, using berms, silt fencing, gravel or crushed stone, and slope drains.

Apply such temporary measures to erodible materials exposed by activities associated with the remedial construction.

b. Hold the areas of bare soil exposed at one time to a minimum.
c. Provide special care in areas with steep slopes. Minimize vegetation disturbance to maintain soil stability.

7. Inspection and Maintenance:
   a. Periodically inspect areas of earthwork and areas where soil is disturbed to identify evidence of the start of erosion and sedimentation; apply corrective measures as required to control erosion and sedimentation. Continue inspections and corrective measures until soils are permanently stabilized and permanent vegetation has been established.
   b. Inspect erosion and sediment controls prior to conducting any intrusive activities. During Work, erosion and sediment controls shall be inspected at least once every 7 days until restoration is complete.
   c. Repair or replace damaged erosion and sediment controls within 1 day of becoming aware of such damage.
   d. Periodically remove silt and sediment that has accumulated in or behind sediment and erosion controls. Properly dispose of silt and sediment.
8. Duration of Erosion and Sediment Controls:
   a. Maintain erosion and sediment controls in effective working condition until the associated drainage area has been permanently stabilized.
   b. Maintain erosion and sediment controls until the Site is restored, underlying soils are permanently stabilized, and permanent vegetation has been established.
9. Work Stoppage: Provide additional temporary controls necessary to prevent environmental damage to the Site and adjacent areas if the Work is temporarily stopped or suspended for any reason.

B. Reinforced Silt Fencing:

1. Locations of Reinforced Silt Fencing:
   a. Install silt fencing at the locations shown in the Design Drawings and elsewhere as needed to control runoff in accordance with SWPPP.
   b. On slopes, install silt fencing at intervals that do not exceed the maximum lengths indicated in Table 1, unless otherwise approved by the Construction Manager.

Table 1
Maximum Length of Upgradient Slope Between Runs

Slope	Upgradient Slope Length (feet)
<2%	N/A
2–10%	250
10–20%	150
20–33%	80
33–50%	70
>50%	30

c. Provide silt fencing around the perimeter of each stockpile of topsoil, general fill material, and excavated material. Install silt fencing before expected precipitation and maintain it until the stockpile is removed.
d. Do not install silt fencing at the following types of locations:
   1) Area of concentrated stormwater flows such as ditches, swales, or channels
   2) Where rock or rocky soils prevent full and uniform anchoring of silt fencing
   3) Across upstream or discharge ends of stormwater piping or culverts

2. Installation:
   a. Securely fasten filter fabric to each support post in no fewer than four locations. Spacing between support posts shall not exceed 8 feet (center to center).
   b. When two sections of filter fabric abut each other, fold over edges and overlap by a minimum of 6 inches and securely fasten to wire mesh.
   c. Embed posts in the ground to the depth necessary for proper controls but not less than 16 inches below ground surface.
   d. Extend filter fabric a minimum of 6 inches belowground and a minimum of 16 inches aboveground.
   e. Bury filter fabric at bottom of silt fence in a trench, in a “J” configuration, to a depth of 6 inches below grade.

3. Maintenance:
   a. Conduct routine inspection at least once every 7 days until final restoration.
   b. Remove accumulated sediment when depth reaches half the effective height of the sediment control.
   c. Repair and reinstall silt fencing as required.
   d. Do not allow formation of concentrated stormwater flows on slopes above silt fencing unless so shown or indicated in the Contract Documents. If unauthorized concentrated stormwater flows occur, stabilize the slope via earthmoving and other stabilization measures as required to prevent flow of concentrated stormwater flows toward silt fencing.

3.02 REMOVAL OF EROSION AND SEDIMENT CONTROLS

A. Remove erosion and sediment controls only when directed by the Construction Manager.

END OF SECTION

PART 1 – GENERAL

1.01 DESCRIPTION

A. Scope:

1. The Contractor shall furnish all labor, materials, equipment, and incidentals required to restore the vernal pools as detailed in this Specification and in the Design Drawings.
2. Perform restoration Work in a safe manner that prevents injury to persons and property, including, but not limited to, mature trees, surface structures, and Underground Facilities.
3. Perform restoration Work within the areas shown or indicated in the Design Drawings and as determined necessary by the Construction Manager.
4. Restoration equipment operated within and adjacent to the vernal pools shall be low-ground-pressure equipment and/or operated from construction mats to prevent compression of soils.
5. To the extent practicable, the restoration activities associated with the vernal pools shall be done during low-water levels when there is no standing water in the vernal pools and outside of the breeding, development, and emergence period for vernal pool amphibians (approximately early March through July 31)

B. Related Sections

1. Section 13 80 01 – Temporary Access Roads and Staging Areas
2. Section 13 90 01 – Amendment Placement – Vernal Pools
3. Section 31 05 13 – Soils and Aggregates
4. Section 31 11 00 – Clearing and Grubbing
5. Section 31 23 00 – Excavation and Fill
6. Section 31 25 00 – Erosion and Sediment Controls

1.02 SUBMITTALS

A. The Contractor shall prepare and submit a Site Restoration Plan for review and approval by the Construction Manager as part of the Contractor's Operations Plan detailing methods, equipment, and materials to be used as part of site restoration. At a minimum, the Restoration Plan shall include the following:

1. Means by which final grades will be checked and verified by the Contractor prior to seeding and planting

2. Methods, equipment, procedures, and sequence for seeding, planting, fertilizer application, protection fabric placement, and watering
3. Product data sheets, certificates, and source information for proposed seed mixes
   a. The seed certificates shall include the following: botanical name and common name of all species included in the seed mixture, percentage of each species of seed by weight in the mixture, percentage of pure seed for each species included in the mixture, germination percentage, amount of undesirable plant seed present in the mixture, date of packaging, name and address of supplier, and county and state of origin.
4. A list of all plants that will be planted, including the locations, species, quantity of each species, and sizes of each item (if applicable)
5. A fertilizer certificate, if required, and product data sheet and certificate confirming conformance with this Technical Specification
6. Protection Fabric, if required, in addition to manufacturer product data and delivery, handling, storage, installation, and repair methods
7. A maintenance and inspection schedule

1.03 DELIVERY, STORAGE, AND HANDLING

A. The Contractor shall ensure fertilizer is delivered in manufacturer's standard-sized bags or cartons showing weight, analysis, and the name of the manufacturer. The Contractor shall store fertilizer as approved by the Construction Manager.

B. The Contractor shall ensure seed is delivered in the vendor's unopened packages bearing labels showing the vendor's name and seed analysis by weight.

C. The Contractor shall store all seed at the Project Site in a cool, dry place at locations approved by the Construction Manager. The Contractor shall replace any seed damaged during storage.

D. The Contractor shall store seed in weather- and rodent-proof enclosures.

E. Plants shall be maintained in proper moist conditions and protected from wind, herbivory, or other adverse effects.

PART 2 – PRODUCTS

2.01 PROTECTION FABRIC

A. Coir Fiber Fabric shall be Coir Mat 700 or approved equivalent.

2.02 SEED

A. Seed shall be as follows:

1. Cover Crop: *Secale cereale* or approved equivalent
2. Wetland Seed Mix: ERNMX-122 FACW Meadow Mix, New England Wetland Plants "Wetmix" or equivalent seed mixture approved by the Project Wetland Scientist is acceptable.

B. All seed shall have the proper stratification or scarification, in accordance with the producer's instructions, to break seed dormancy.

C. Seed mixtures should be delivered in original sealed containers. Seed in wet, torn, or otherwise obviously damaged packaging is not acceptable. The Contractor shall label containers with the following information: analysis of seed mixture, percentage of pure seed by species, percentage of weed seed, year of production, net weight, date tagged and location, percentage of germination, and name and address of distributor.

2.03 PLANTS

A. Species to be included in the plantings are shown in Table 1 The quantity of each species shall be consistent with the Design Drawings.

B. All plants shall be obtained from nursery stock in the northeastern United States and produced from species native to the region. The source of plant material shall be submitted to the Project Wetland Scientist for review. Any field-collected plant material (e.g., seeds or live stakes) shall be collected from the same region. The Contractor shall provide documentation that plants have been preconditioned for placement by being held in a wet environment.

C. Plants shall be free of insects and diseases, appear healthy, and exhibit visible signs of viability such as green leaves or stems. Plants shall not appear chlorotic or exhibit signs of desiccation. Plants shall not exhibit visible signs of herbivory. Leaf margins shall be predominantly green with limited areas of spots or blotches. Dormant plants shall exhibit healthy roots, rhizomes, and leaf buds. All plant materials, including any collected field stock, shall comply with state and federal laws with respect to inspection for plant diseases and insect infestations. Collected plant materials shall be obtained in strict compliance with any applicable state or federal wetland or species protection programs.

D. Each plant species shall be handled and placed in a manner consistent with good trade practice to verify plants are in acceptable condition at their time of arrival at the Site. Plants not in acceptable condition shall be rejected from use.

E. All plant stock, if not directly transplanted, shall be stored in aboveground locations in non-construction areas accepted by the Construction Manager. All plant stock shall have soil placed around the roots sufficient to protect from desiccation and to provide nourishment during storage. All plants stored in the field prior to installation shall be kept cool and shall be sheltered from the drying effects of direct sunlight and prevailing winds. Plants should not be subject to freezing or drying. It is the Contractor's responsibility to supply adequate water for all plant stock to maintain it in a healthy, vigorous state suitable for transplanting.

2.04 FERTILIZERS

A. Fertilizing of plants is not anticipated in these wetland environments. Any request for fertilizers would require approval by the Project Wetland Scientist. If needed, fertilizer mixes and rates of application shall be made based on laboratory testing of the backfill and the recommendations of the Cornell Cooperative Extension.

2.05 WATER

A. Water shall be from a source approved by the Construction Manager.

PART 3 – EXECUTION

3.01 EXCAVATION AREAS

A. Prior to the start of clearing and excavation, an inventory and photographic record of woody debris within the vernal pools shall be performed. During restoration, woody debris shall be replaced consistent with the original size, location, and density of the original woody debris. Woody debris may be sourced from the vernal pool if it is free of contaminated soil from the vernal pool and surrounding area, from material generated from clearing in other areas of the pilot test project if it is free of contaminated soil, or from off site.

B. During backfilling, woody debris shall be incorporated into the near-surface topsoil to create microtopographic variability, consistent with pre-remediation conditions, as directed by the Project Wetland Scientist.

C. Cut dogwood and other woody shrubs shall be set aside for placement following backfilling to function as temporary egg attachment sites and cover for developing larvae. The cut shrubbery shall be placed along the edges of the vernal pools with the branch tips pointing into deeper water.

D. Prior to planting and seeding, soils shall be prepared with a shallow rake to break up the soil and prepare the surfaces for planting and seeding as per the Design Drawings and this Technical Specification.

E. Planting and seeding shall be performed under direct supervision by the Project Wetland Scientist.

F. The planting plans for each vernal pool (Table 1) shall not be deviated from without the approval of the Project Wetland Scientist. It is recognized that not all species may be available at the time of planting, and substitutions may be allowed with the approval of the Project Wetland Scientist and the U.S. Environmental Protection Agency (USEPA).

G. The wetland seed mix shall be hand-broadcast at the specified rates throughout the area of the restored vernal pools and directly adjacent disturbed areas to create an herbaceous groundcover layer. Acceptable seed mixes include New England wet mix (New England Wetland Plants, Amherst, Massachusetts) and obligate wetland mix (Ernst Seeds, Meadville, Pennsylvania). Comparable alternative sources may be approved by the Project Wetland Scientist and USEPA.

H. Trees, shrubs, and herbaceous plants shall be sized as specified in Table 1 below. Plant material shall be inspected when picked up at the nursery, as well as upon delivery to the site.

I. The planting season will be in the spring from April 1 through June 30 and in the fall from August 15 through November 15.

J. The following planting protocol shall be followed:

1. The planting contractor shall maintain the original grade of the root flare after transplanting from the nursery.
2. The tree/shrub pit shall not exceed 1-foot deep and shall, therefore, be restricted to 1-gallon container plants. Plantings shall be backfilled with topsoil.
3. No fertilizer shall be used in the area of the vernal pools or directly adjacent areas.
4. A temporary earth saucer shall be made to promote water retention over the root ball.
5. Plant material and seed mixtures shall be immediately watered following planting.
6. A 1- to 2-inch layer of mulch composed of leaf litter from trees characteristic of the nearby floodplain forest, minimizing use of oak leaves (*Quercus* spp.) to less than 30%, shall be applied over the area of the restored vernal pools. The leaf litter shall be sourced locally to the extent practicable, such as from nearby neighborhoods or local leaf collection sites. The leaf litter shall not be sourced from other wooded areas of the Housatonic River floodplain. The mulch source and composition shall be reviewed by and approved by the Project Wetland Scientist.

7. Additional erosion control matting shall be placed on disturbed areas as needed or at the direction of the Construction Manager.

3.02 IN SITU TREATMENT AREAS

A. Prior to the start of clearing and excavation, an inventory and photographic record of woody debris within the vernal pools shall be performed. To the extent feasible, woody debris shall be left in place in the treatment vernal pools. However, woody debris removal will be required in vernal pools 5A-VP-9 and 5A-VP-15 to facilitate the mechanical mixing of the amendment and soils to be performed in that pool. Removal of woody debris may also be required in other pools to allow access for equipment required to place the amendment. Any woody debris removed shall be temporarily staged near the vernal pool and then replaced after amendment placement in the same general location and density as it was prior to the test.

B. Vegetation removal in treatment vernal pools shall be completed prior to amendment placement as needed, to be determined in conjunction with the Contractor and the Project Wetland Scientist. The goal is to minimize vegetation removal to minimize impacts to the vernal pools. At a minimum, it is anticipated that cutting of dogwoods and similar small woody vegetation shall be required. There shall be no tree removal.

C. Cut dogwoods and other woody shrubs shall be set aside for placement following amendment application to function as temporary egg attachment sites and cover for developing larvae. The cut shrubbery shall be placed along the edges of the vernal pools with the branch tips pointing into deeper water.

D. A 1- to 2-inch layer of mulch composed of leaf litter from trees characteristic of the nearby floodplain forest, minimizing use of oak leaves (*Quercus* spp.) to less than 30%, shall be applied over the area of the vernal pools following amendment application. The leaf litter shall be sourced locally to the extent practicable, such as from nearby neighborhoods or local leaf collection sites. The leaf litter shall not be sourced from other wooded areas of the Housatonic River floodplain. The mulch source and composition shall be reviewed by and approved by the Project Wetland Scientist. Vegetation removed from the amendment-based pools may also be used, subject to approval by the Project Wetland Scientist.

3.03 ACCESS ROADS AND STAGING AREAS

A. Following finalization of the footprints of the secondary access roads and staging areas by the Contractor and Construction Manager, GE will arrange for the performance of an inventory by a licensed arborist or other qualified person of all trees and shrubs (including species and size) and other significant vegetation anticipated to be removed or significantly damaged due to the pilot test activities. A scaled figure showing the approximate locations of the trees and shrubs and other significant vegetation in areas

that may be affected by the pilot test activities shall also be prepared as part of this inventory.

B. Based on the results of this inventory, a Restoration Plan, which includes a planting plan, will be developed by GE and submitted to USEPA for review and approval. The Contractor shall be responsible for implementing this Restoration Plan.

C. Prior to completion of the vegetation-related restoration, topsoil placement may be required to restore adjacent areas impacted by construction activities to pre-construction elevations. For example, if use of marsh mats to access the vernal pools results in significant settlement such that the surface water flow or ecological integrity of the area is significantly impacted, topsoil shall be placed to restore the area to the original grade. The need for such backfilling will be determined and executed under oversight by the Project Wetland Scientist.

3.04 SEEDING AND PLANTING

A. Seeding and planting shall only occur immediately after approval of backfill placement by the Construction Manager.

B. The Contractor shall not plant or apply seed if the ground is frozen.

C. Seeding and planting shall not be performed when the temperature may drop below 35°F or rise above 90°F over the forthcoming week.

D. The Contractor shall provide notice to the Construction Manager at least 48 hours prior to seeding and planting.

E. The Contractor shall use the seed mixes specified in Part 2.02.A.2 unless alternative mixtures and application formulae have been approved by the Project Wetland Scientist.

F. Seeding rates shall be as prescribed by the seed vendor, unless otherwise approved or specified by the Project Wetland Scientist.

G. Seed shall not be applied when wind conditions are such that materials would be carried beyond designated areas or that materials would not be uniformly applied and when wind velocity exceeds 15 miles per hour.

H. Seeding activities shall not be carried out on days with heavy precipitation that may result in the washing out of seed.

I. The Contractor shall apply seed in a way that ensures the entire required area receives seed. The Contractor shall reseed areas where gaps in the seeded areas exceed 4 square feet.

J. The Contractor shall lightly rake seeded areas within 12 hours to ensure proper soil-seed contact.

K. The Contractor shall not seed areas inundated by water.

L. Seeding shall overlap adjoining vegetation by at least 12 inches.

M. The Contractor shall water seeded areas to promote seed germination and growth. The Contractor shall avoid creating rills and furrows as a result of watering and repair and reseed any rills and furrows resulting from overwatering.

N. The Contractor shall mark seeded areas to prevent intrusion from foot traffic and equipment.

3.05 PROTECTION FABRIC

A. If determined necessary, erosion protection fabric shall be installed after seeding is accepted by the Construction Manager.

B. The surface shall be free of rocks, clods, sticks, and vegetation prior to fabric installation. Fabric shall be placed to have good contact with the soil.

C. The Contractor shall lay protection fabric loosely and stake or staple the fabric to the slope to maintain direct contact with the soil. The fabric shall not be stretched during installation.

D. The Contractor shall install the fabric blankets vertically from top of slope to bottom of slope.

E. The Contractor shall bury and anchor the top of slope and toe of slope portions of the fabric.

3.06 MAINTENANCE – SEEDED AREAS

A. The Contractor shall maintain the seeded and planted areas for a period of one full growing season following seeding. Maintenance responsibilities begin immediately after seeding and planting and continue for one full growing season after the Construction Manager has accepted the seeding and planting.

B. Maintenance shall include control of invasive species and herbivores and other vectors that threaten the establishment of the seeding. The Contractor shall remove undesirable plant material that interferes or inhibits the growth of the plants installed by the Contractor. The Contractor shall take necessary action to correct and restore the unacceptable areas.

C. The Contractor shall maintain vegetative cover by watering, weeding, and reseeding and replanting. In addition, the Contractor shall control prohibited and regulated invasive plant species listed in 6NYCRR Part 575, preferably by physical removal. Restricted hand application of glyphosate, subject to the appropriate limitations of local and state regulations, is acceptable during mid-summer to late summer and fall, though only with the approval of the Construction Manager.

D. The Contractor shall repeat watering weekly for at least 4 weeks after seeding if natural rainfall is less than 1 inch per week.

E. The Contractor shall reseed and replant areas that are unacceptable during the 1-year maintenance period. Bare areas greater than 4 square feet shall be reseeded with the specified seed mix.

F. During the growing season, the Contractor shall conduct corrective action and maintenance within 30 days to address unacceptable areas if notified by the Construction Manager.

G. The Contractor shall notify the Construction Manager 48 hours prior to and following any maintenance activity.

H. Approval of seeded and planted areas will be by the Construction Manager at the end of the growing season the year after seeding and planting. Approval will be provided if all requirements have been met, including the following:

1. Seeded and planted areas are properly established.
2. Seeded and planted areas are free of eroded, bare, or dead spots and free of prohibited and regulated plant species.
3. Mean percent cover of native target species is equal to or greater than 80% in each design plant community type.
4. Mean percent cover of invasive or likely invasive plant species (https://massnrc.org/mipag/) is equal to or less than 10% cover.

TABLE 1. TREE AND SHRUB PLANTINGS INCLUDED IN RESTORATION DESIGN.

Pool ID	Scientific Name	Common Name	Layer	Count
5A-VP-4	*Acer saccharinum*	Silver maple	Tree	2
	Cephalanthus occidentalis	Buttonbush	Shrub	10
	Ilex verticillata	Winterberry	Shrub	16
	Cornus amomum	Silky dogwood	Shrub	38
	Spirea alba	Meadowsweet	Shrub	7
	Vaccinium corymbosum	Highbush blueberry	Shrub	5
5A-VP-7	*Acer saccharinum*	Silver maple	Tree	1
	Cephalanthus occidentalis	Buttonbush	Shrub	19
	Ilex verticillata	Winterberry	Shrub	22
	Cornus amomum	Silky dogwood	Shrub	99
	Spirea alba	Meadowsweet	Shrub	14
5A-VP-16	*Ilex verticillata*	Winterberry	Shrub	2
	Cornus amomum	Silky dogwood	Shrub	7
5A-VP-52	*Cornus amomum*	Silky dogwood	Shrub	9
5A-VP-57	*Acer saccharinum*	Silver maple	Tree	7

Notes:
1. All trees and shrubs shall not exceed a 1-gallon container size or be planted at deeper than 12 inches

END OF SECTION

PART 1 – GENERAL

1.01 DESCRIPTION

A. Scope

1. The Contractor shall furnish all labor, materials, tools, equipment, accessories, and appurtenances necessary to perform all excavated material and debris handling, processing, stockpiling, and management as described on the Design Drawings and in this Technical Specification.

2. The Contractor shall be responsible for determining the means and methods of unloading, handling, processing, dewatering, and transporting the excavated material.

3. The Contractor shall be responsible for the design, construction, and installation of any modifications to the Staging Area as necessary to complete the Work specified herein.

4. The Contractor shall handle, stage, segregate, and dispose of excavated materials characterized as Toxic Substances Control Act (TSCA) materials separately from non-TSCA materials. The limits of TSCA and non-TSCA characterization areas within the excavation areas are shown on the Design Drawings.

5. The Contractor shall clean material handling equipment that handles non-TSCA materials after having handled TSCA materials in accordance with Section 02 51 00 – Equipment Decontamination.

6. The Contractor shall either directly load excavated material and debris into trucks for off-site transportation and disposal or otherwise temporarily stockpile excavated material and debris at a nearby staging area prior to dewatering or stabilizing (as required) prior to off-site transportation to an Owner-approved disposal facility.

7. Potential temporary staging areas for excavated material management and processing are shown on the Design Drawings near the vernal pool excavation areas. Any Contractor-proposed temporary staging areas located at different locations or outside of the potential staging area locations shown on the Drawings will require approval by the Construction Manager.

8. The Contractor shall conduct excavated material dewatering, and segregation, as needed, within the excavation limits or at temporary staging areas. Any stabilization of excavated materials with an additive or amendment shall be performed within a temporary staging area. The Contractor shall, at a minimum, dewater and stabilize excavated materials as needed in accordance with all applicable laws and regulations for transportation over public roadways (e.g., pass

the Paint Filter Test) and to meet the requirements of Owner-approved disposal facilities.

9. The Contractor shall contain and dispose of Construction Water in accordance with Section 02 72 00 – Water Management, including Construction Water generated from excavated material dewatering and stabilization in the staging areas, stormwater runoff collected from the staging areas, truck washing, decontamination procedures, and from other water-generating activities in the staging areas.
10. The Contractor shall implement best management practices (BMPs), controls, and other measures necessary to maintain compliance with the project environmental and quality of life criteria described in Section 01571 – Operations Environmental Restrictions and Controls.

B. RELATED SECTIONS

1. Section 01571 – Operations Environmental Restrictions and Controls
2. Section 02 51 00 – Equipment Decontamination
3. Section 02 72 00 – Water Management
4. Section 02 81 02 – Transportation and Disposal of Waste Material
5. Section 13 80 01 – Temporary Access Roads and Staging Areas
6. Section 31 25 00 – Erosion and Sediment Controls

1.02 SUBMITTALS

A. CONSTRUCTION

1. The Contractor shall prepare and submit an Excavated Material Management and Processing Plan as part of the Contractor's Operations Plan to the Construction Manager for review and approval. The Excavated Material Management and Processing Plan shall be approved by the Construction Manager prior to initiation of any Work that requires excavation. At a minimum, the Excavated Material Management and Processing Plan shall include the following:
   a. A detailed description of the means and methods, including all equipment and personnel, for material management, handling, and transport from the location of removal to the staging areas, if used; segregating Toxic Substances Control Act (TSCA) and non-TSCA materials; dewatering; truck loading; and on- and off-site transport.
   b. Figures showing the locations, arrangement, and layout of the temporary staging areas relative to the excavation areas including material unloading areas, processing areas, stabilization agent staging areas, equipment locations, and any other details pertinent to the processing and handling of the excavated materials.

c. Describe the means and methods to construct and use temporary staging areas with berms and impermeable liners and to securely cover stockpiles.
d. Details related to the Contractor's proposed dewatering and stabilization means and methods.
e. If the Contractor elects to use Portland cement or another approved drying agent, indicate the percent by weight of such materials to be added to satisfy disposal facility requirements. The Contractor shall describe the mixing procedures to be used and describe the measures for controlling/mitigating dust generation.
f. Safety Data Sheets (SDSs) for all proposed dewatering and stabilization agents.
g. A description of testing activities and methods to be performed by the Contractor to verify that excavated material passes the Paint Filter Test and any other requirements of the selected disposal facility.
h. Methods and materials to prohibit leaking of free liquids, including lining truck beds and using tailgate seals.
i. A description of the procedures, materials, and equipment to be used to prevent cross-contaminating surfaces and materials or tracking of excavated material outside of the material staging area.
j. A description of water management procedures at the temporary staging areas.

2. The Contractor shall provide the results of any material testing to verify that excavated material passes the Paint Filter Test and any other requirements of the selected disposal facility.

PART 2 –PRODUCTS

2.01 GENERAL MATERIALS

A. The Contractor shall be responsible for the selection of any dewatering or stabilization agents, subject to approval by the Construction Manager.

B. All additives, polymers, and coagulants to be used during the excavated soil management process shall meet the requirements of the Owner-approved disposal facility(ies).

PART 3 – EXECUTION

3.01 EXCAVATED MATERIAL MANAGEMENT

A. The Contractor shall provide all labor, equipment, and materials to characterize, handle, load, dewater, properly store, and transport excavated materials and miscellaneous debris in accordance with Section 13 80 01 – Temporary Access Roads and Staging Areas, Section 02 72 00 – Water Management, Section 02 81 02 – Transportation and Disposal of Waste Material, and Section 31 25 00 – Erosion and Sediment Controls.

B. The Contractor shall allow saturated soils, when encountered, to drain within the excavation limits by being placed in small piles for gravity dewatering or by draining directly from the excavator bucket suspended over the excavation area prior to being directly loaded into trucks for transportation to an off-site disposal facility or stockpiled in the staging areas.

C. If required, additional gravity dewatering of excavated material shall be completed in the staging areas in preparation for off-Site transport. The Contractor shall coordinate with the Contractor-selected, Owner- approved disposal facility regarding requirements for disposal. Excavated materials shall be stockpiled in the staging areas until sufficiently dewatered by gravity to pass the Paint Filter Liquids Test (USEPA Method 9095B).

   1. For non-TSCA materials, if gravity dewatering procedures do not yield material that will pass the Paint Filter Test, the Contractor shall mix drier non-TSCA excavated materials or drying agents with the stockpiled material, as necessary, such that the material passes the Paint Filter Test and is suitable for transport.

   2. For TSCA materials, if gravity dewatering procedures do not yield material that will pass the Paint Filter Test, the Contractor shall mix drier TSCA excavated materials or drying agents with the stockpiled material, as necessary, such that the material passes the Paint Filter Test and is suitable for transport.

D. The Contractor shall establish segregated areas in the staging areas with impermeable physical separation barriers to preclude intermingling of TSCA materials and non-TSCA materials. The Contractor shall maintain appropriate signage within and/or adjacent to the stockpiles to document the characterization of materials placed in the stockpiles. Any areas of the staging areas used to handle, store, or process TSCA materials shall be thoroughly decontaminated in accordance with the procedures detailed in Section 01 51 00 – Decontamination prior to handling, storing, or processing non-TSCA materials.

E. The Contractor shall use lined watertight material haul trucks for all transport of excavated materials. If free liquids are observed leaking from truck beds, operations will be ceased by the Construction Manager until the Contractor can implement corrective action.

F. Stockpiled excavated material shall be stored in bermed areas lined with impermeable material to the satisfaction of the Construction Manager.

G. Stockpiled excavated material shall be securely covered with impermeable material to prevent wind damage, dust generation, and water infiltration at the end of each workday, when materials are not actively being placed or removed, during precipitation events, or within 30 minutes of notification from the Construction Manager. Such covering activities shall be the sole responsibility of the Contractor. Stockpile covers may consist of either a spray on cover or polyethylene sheeting (minimum 10-mil thickness in accordance with the Design Drawings) to the satisfaction of the Construction Manager. The Contractor's proposed materials, methods, and procedures for covering stockpiled material will be

subject to approval by the Construction Manager. Spray-on covers, if used, shall be applied to the stockpiled material in accordance with the manufacturer's recommendations. Spray-on covers shall be applied only during weather conditions acceptable to the Construction Manager (e.g., excluding periods of high winds).

H. Loading of trucks with material from the staging areas shall be completed in preparation for off-site transport for disposal per Section 02 81 02 – Transportation and Disposal of Excavated Materials.

I. Material testing for verification with trucking and disposal facility acceptance criteria shall take place within the staging areas. The Contractor shall coordinate acceptance criteria with the trucking and disposal facilities and verify compliance with these criteria prior to transporting material for off-site disposal. At minimum, the Contractor shall perform gravity dewatering and stabilization operations to pass a Paint Filter Liquids Test (USEPA Method 9095B) prior to transport. No excavated material shall depart the staging areas until the Contractor submits to the Construction Manager testing results that show compliance with the acceptance criteria.

   1. The Construction Manager may perform their own Paint Filter Liquids Test(s) on material targeted for disposal. If the field test fails, the Contractor shall be required to identify an alternate method to achieve material conditions suitable for transport or dewater existing material to meet Paint Filter Liquids Test.

J. Debris encountered during soil removal that has been in contact with contaminated soil shall be segregated for disposal based on the designation of the surrounding soil or characterized separately for determining the appropriate disposal method. As necessary, large debris items shall be cut to size at the staging areas to facilitate transport and to meet the requirements of the disposal destination.

3.02 SITE MAINTENANCE AND HOUSEKEEPING

A. The Contractor shall perform the following maintenance activities daily:

   1. Temporary access roads and staging areas: Any necessary repairs or replacements shall be implemented by the Contractor immediately, and as directed by the Construction Manager, and shall be the sole responsibility of the Contractor.
   2. Water collection system and sumps: Unclog soil as needed to not disrupt performance of the system.
   3. Barriers, liners, and environmental controls: Repair immediately following observation of deficiency or as directed by the Construction Manager.
   4. The Contractor shall keep the staging areas clean and free from rubbish and debris at all times.

3.03 PROTECTION OF SITE AND WATER RESOURCES

A. The Contractor shall comply with applicable federal, state, and local laws, ordinances, and regulations concerning the control and abatement of water pollution in accordance with Section 31 25 00 – Erosion and Sediment Controls during excavated material management and processing activities.

END OF SECTION

Appendix G
Vernal Pool Photograph Log

Amendment-Based Vernal Pools Photograph Log

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 1	Date: 4/10/19	Photo No. 2	Date: 03/19/24
Description: View of 5A-VP-9 flooded in the spring of 2019 Photo Direction: W		**Description:** 5AVP9 during flooded conditions. Photo Direction: NE	

Photo No. 3	Date: 05/30/24	Photo No. 4	Date: 05/30/24
Description: 5AVP9 during dry conditions. Photo Direction: N		**Description:** 5AVP9 during dry conditions. Photo Direction: W	

AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 5	Date: 6/9/09	Photo No. 6	Date: 08/05/22
Description: View of 5AVP12 during dry conditions in the summer of 2009. Photo Direction: W		**Description:** View of 5AVP12 during dry conditions in the summer of 2022. Photo Direction: E	

Photo No. 7	Date: 05/08/24	Photo No. 8	Date: 05/30/23
Description: 5AVP12 during flooded conditions. Photo Direction: E		**Description:** 5AVP12 during dry conditions. Photo Direction: W	

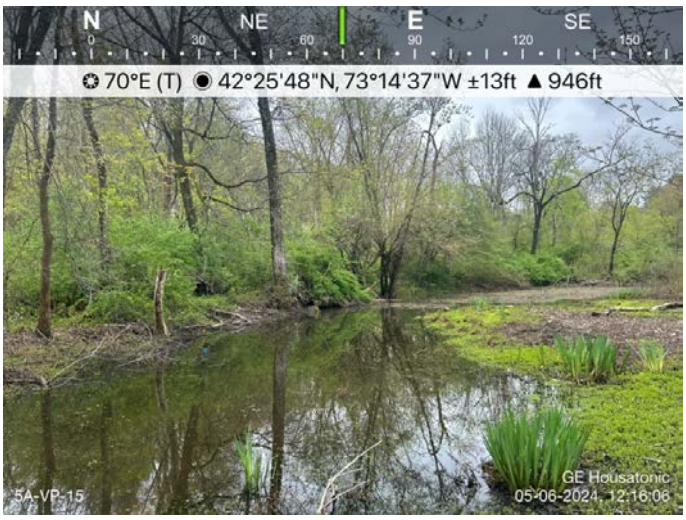
AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 9	Date: 4/13/19	Photo No. 10	Date: 03/19/22
Description: Eastern end of 5AVP15 flooded in the spring of 2019. Photo Direction: W		**Description:** Eastern end of 5AVP15 flooded in the spring of 2024. Photo Direction: W	

Photo No. 11	Date: 05/06/24	Photo No. 12	Date: 06/12/24
Description: 5AVP15 during flooded conditions. West end of pool Photo Direction: E		**Description:** 5AVP15 during dry conditions. West and central portions of the pool Photo Direction: E	



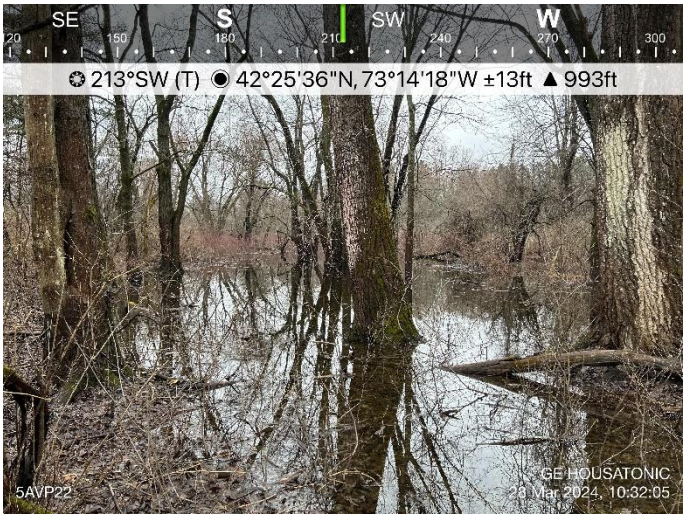
AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 13	Date: 06/12/23	Photo No. 14	Date: 05/30/24
Description: 5AVP15. East end of pool under dry conditions Photo Direction: W		**Description:** 5AVP15 during low waters conditions. West and central portions of the pool Photo Direction: E	

Photo No. 15	Date: 04/26/18	Photo No. 16	Date: 03/28/24
Description: South-central portion of 5AVP22 flooded in spring of 2018 Photo Direction: N		**Description:** Northern extent of 5AVP22 flooded in early spring 2024. Photo Direction: SW	



AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 17	Date: 04/26/18	Photo No. 18	Date: 05/07/24
Description: Southern extent of 5AVP22 during flooded conditions in 2018. Photo Direction: S		**Description:** Southern extent of 5AVP22 during flooded conditions. Photo Direction: N	

Photo No. 19	Date: 03/08/24	Photo No. 20	Date: 05/29/24
Description: Southern extent of 5AVP22 flooded in early 2024. Photo Direction: S		**Description:** Southern extent of 5AVP22 during low water levels in 2024. Photo Direction: N	

AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 21	Date: 05/29/24	Photo No. 22	Date: 08/05/22
Description: Northern end of 5AVP22 during dry conditions. Photo Direction: S		**Description:** Northern end of 5AVP22 during low water conditions. Photo Direction: S	

Photo No. 23	Date: 08/05/22	Photo No. 24	Date: 08/05/22
Description: Southern end of 5AVP22 during dry conditions. Photo Direction: N		**Description:** Southern extent of 5AVP22 during dry conditions in 2022. Photo Direction: S	

AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 25	Date: 03/22/24	Photo No. 26	Date: 05/07/24
Description: Western end of 5AVP27 frozen water in spring of 2018. Photo Direction: W		**Description:** Western end of 5AVP27 under dry conditions Photo Direction: W	

Photo No. 27	Date: 03/22/24	Photo No. 28	05/29/24
Description: Eastern end of 5AVP27 under flooded and frozen conditions. Photo Direction: E		**Description:** Eastern end of 5AVP27 during dry conditions. Photo Direction: E	

Excavation-Based Vernal Pools
Photograph Log

AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 1	Date: 4/26/18	Photo No. 2	Date: 05/25/23
Description: View of 5AVP4 flooded in spring of 2018. Photo Direction: SE		**Description:** North side of 5AVP4 dry during August of 2022. Photo Direction: SE	

Photo No. 3	Date: 08/01/22	Photo No. 4	Date: 05/09/23
Description: Southern end of 5AVP4 dry. Photo Direction: SSW		**Description:** Southern end of 5AVP4 partially flooded Photo Direction: SSW	

AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 5	Date: 03/08/24	Photo No. 6	Date: 05/06/24
Description: Northern end of 5AVP4 flooded in spring of 2024. Photo Direction: WNW		**Description:** Northern end of 5AVP4 during low water conditions. Photo Direction: NE	

Photo No. 7	Date: 05/30/24	Photo No. 8	Date: 03/19/24
Description: 5AVP4, first observation in 2024 of pool dried out. North end of pool. Photo Direction: SE		**Description:** 5AVP4 flooded in early 2024. South end of pool. Photo Direction: NE	

AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 9	Date: 05/30/24	Photo No. 10	Date: 08/01/22
Description: 5AVP4, first observation in 2024 of pool dried out. South end of pool. Photo Direction: NE		**Description:** 5AVP4 dried out in August of 2022. South end of pool. Photo Direction: NE	

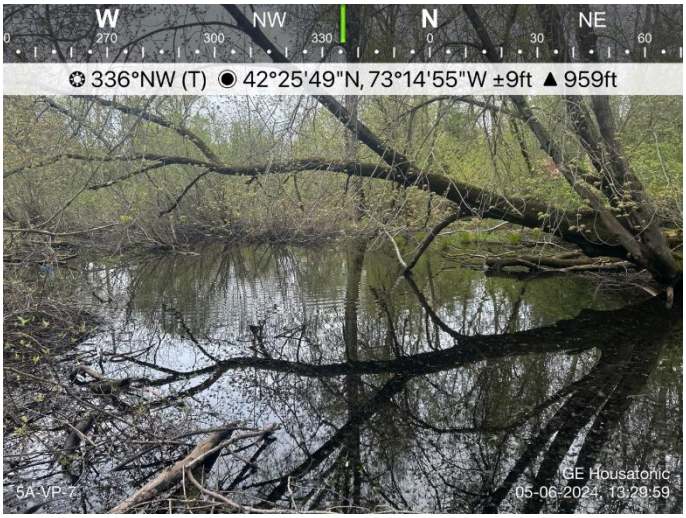
Photo No. 11	Date: 05/23/18	Photo No. 12	Date: 04/13/24
Description: 5AVP7 during low water levels in 2018. Photo Direction: NW		**Description:** 5AVP7 flooded in spring of 2019. Photo Direction: N	

AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 13	Date: 04/18/23	Photo No. 14	Date: 05/09/23
Description: 5AVP7 flooded. Photo Direction: N		**Description:** 5AVP7 flooded Photo Direction: ENE	

Photo No. 15	Date: 08/03/22	Photo No. 16	Date: 05/06/24
Description: 5AVP7 dry in August of 2022. Photo Direction: SE		**Description:** 5AVP7 flooded in spring of 2024. Photo Direction: NW	
			

AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 17	Date: 05/30/24	Photo No. 18	Date: 04/13/19
Description: 5AVP7, first observation of pool dried up in 2024. Photo Direction: N		**Description:** 5AVP16 flooded in spring of 2019. Photo Direction: N	

Photo No. 19	Date: 04/19/23	Photo No. 20	Date: 05/09/23
Description: 5AVP16 during flooded conditions. Photo Direction: E		**Description:** 5AVP16 during dry conditions. Photo Direction: S	

AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 21	Date: 05/06/24	Photo No. 22	Date: 06/27/24
Description: 5AVP16 during flooded conditions. Photo Direction: NE		**Description:** 5AVP16 during dry conditions. Photo Direction: E	

Photo No. 23	Date: 05/14/18	Photo No. 24	Date: 08/09/24
Description: 5AVP52 flooded in spring 2018. Photo Direction: N		**Description:** 5AVP52 during dry conditions in August of 2022. Photo Direction: SW	

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 25	Date: 04/21/23	Photo No. 26	Date: 03/28/24
Description: 5AVP52 flooded Photo Direction: SE		**Description:** 5AVP52 flooded across the floodplain, beyond limits of the depression in early spring 2024. Photo Direction: WNW	

Photo No. 27	Date: 05/14/18	Photo No. 28	Date: 08/09/22
Description: 5AVP57 flooded in the spring of 2018. Photo Direction: N		**Description:** 5AVP57 dried out in August of 2022. Photo Direction: S	

AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 29	Date: 05/10/23	Photo No. 30	Date: 04/24/23
Description: 5AVP57 low water conditions, view from north end of pool Photo Direction: S		**Description:** 5AVP57 high flow channel outlet to river during flooded conditions Photo Direction: ESE	

Photo No. 31	Date: 05/25/23	Photo No. 32	Date: 05/07/24
Description: 5AVP57 during dry conditions. Photo Direction: N		**Description:** 5AVP57 during flooded conditions. Photo Direction: N	

Control Pools Photograph Log

AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 1	Date: 05/23/18	Photo No. 2	Date: 05/21/19
Description: 5AVP3 during dry conditions in spring of 2018 Photo Direction: N		**Description:** 5AVP3 partially flooded during spring of 2019. Photo Direction: N	

Photo No. 3	Date: 08/01/22	Photo No. 4	Date: 03/08/24
Description: 5AVP3 during dry conditions in August of 2022. Photo Direction: N		**Description:** 5AVP3 during flooded conditions. Photo Direction: SW	

AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 5	Date: 04/26/18	Photo No. 6	Date: 08/03/22
Description: 5AVP5 flooded in early 2018. Photo Direction: SE		**Description:** 5AVP5 at low water levels in 2022. Photo Direction: SE	

Photo No. 7	Date: 03/08/24	Photo No. 8	Date: 05/30/24
Description: 5AVP5 flooded in early 2024 . Photo Direction: SE		**Description:** 5AVP5 at low water levels in 2024. Photo Direction: SE	

AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 9	Date: 04/26/18	Photo No. 10	Date: 08/03/22
Description: 5AVP10 flooded in early 2018. Photo Direction: North		**Description:** 5AVP10 dry in August of 2022. Photo Direction: E	

Photo No. 11	Date: 05/06/24	Photo No. 12	Date: 05/30/24
Description: 5AVP10 during flooded conditions. Photo Direction: SW		**Description:** 5AVP10 first observation of dry pool in 2024. Photo Direction: NE	

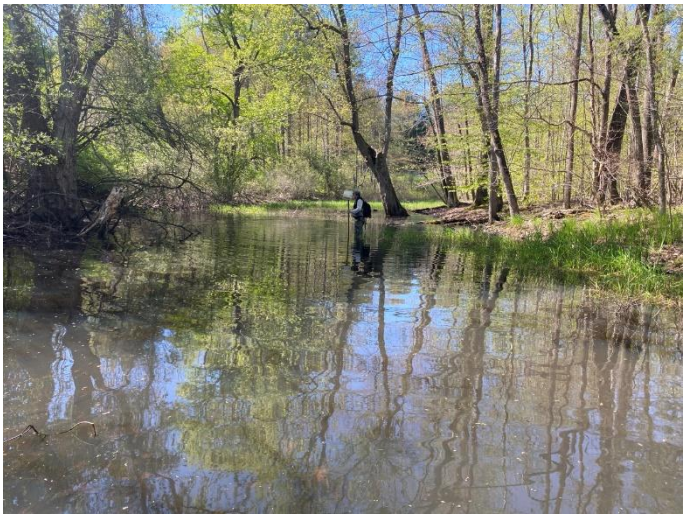
AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 13	Date: 04/23/19	Photo No. 14	Date: 05/30/24
Description: 5AVP21 east side flooded in early 2019. Photo Direction: S		**Description:** 5AVP21 east side during low water levels in 2022 Photo Direction: S	

Photo No. 15	Date: 08/04/22	Photo No. 16	Date: 05/07/24
Description: West side of 5AVP21 during dry conditions. Photo Direction: NW		**Description:** West side of 5AVP21 during flooded conditions. Photo Direction: NW	



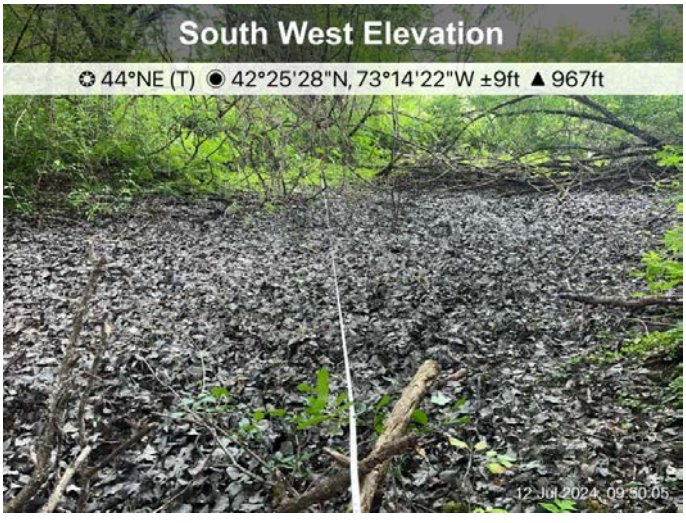
AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 17	Date: 04/20/23	Photo No. 18	Date: 04/23/19
Description: 5AVP21, south end of flooded pool. Photo Direction: SW		**Description:** 5AVP26 during flooded conditions in the spring of 2019. Photo Direction: W	

Photo No. 19	Date: 03/28/24	Photo No. 20	Date: 07/12/24
Description: 5AVP26 during flooded conditions in the spring 2024. Photo Direction: SE		**Description:** 5AVP26 during dry conditions. Photo Direction: NE	



AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 21	Date: 9/17/18	Photo No. 22	Date: 04/21/23
Description: 5AVP55 during low water conditions in 2018. Photo direction: NW		**Description:** 5AVP55 flooded Photo Direction: E	

Photo No. 23	Date: 03/25/24	Photo No. 24	Date: 05/07/24
Description: 5AVP55 flooded in early spring 2024. Photo Direction: E		**Description:** 5AVP55 during flooded conditions in late spring. Photo Direction: E	

AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 25	Date: 05/07/24	Photo No. 26	Date: 06/13/24
Description: 5AVP55 during flooded conditions in late spring. Photo Direction: NNW		**Description:** 5AVP55 during low water conditions in summer of 2024. Photo Direction: WSW	

Photo No. 27	Date: 06/13/24	Photo No. 28	Date: 07/15/24
Description: 5AVP55 low water conditions. Photo Direction: NW from southern edge of pool		**Description:** 5AVP55 during low water conditions. Photo direction: SW	

AECOM

PHOTOGRAPHIC LOG

Client Name: GE	Site Location: Housatonic River Floodplain	Project No. 60719336

Photo No. 29	Date: 04/27/18	Photo No. 30	Date: 08/11/22
Description: 5AVP61 flooded in the spring of 2018. Photo Direction: SE		**Description:** 5AVP61 during dry conditions in 2022. Photo Direction: SE	

Photo No. 31	Date: 05/07/24	Photo No. 32	Date: 07/10/24
Description: 5AVP61 flooded during spring 2024. Photo Direction: SE		**Description:** 5AVP61 during dry conditions in 2024. Photo Direction: E	

Appendix H
Cultural Resources Unanticipated Discovery Plan

June 2025
Housatonic River – Rest of River

Cultural Resources Unanticipated Discoveries Plan

Prepared for
General Electric Company
1 Plastics Avenue
Pittsfield, Massachusetts 01201

Prepared by
AECOM
500 Enterprise Drive
Rocky Hill, Connecticut 06067

Cultural Resources Unanticipated Discovery Plan

Archaeological surveys were conducted in 2024 on behalf of the General Electric Company (GE) in portions of Reach 5A of the Housatonic Rest of River area that will be affected by remediation or support activities and contain or have a high potential to contain cultural resources, and such surveys will continue in 2025 in certain additional areas in Reach 5A. These surveys were and are undertaken to determine whether the remediation and support activities could adversely affect any potentially significant cultural resources. The results of the 2024 surveys were provided in a *Revised Phase IB Cultural Resources Survey Report for Reach 5A*, submitted in June 2025 (AECOM 2025), and the results of the additional 2025 surveys will be provided in an addendum to that report. The surveys to date have identified a total of five archaeological sites within the subject portions of Reach 5A, four of which do not meet the eligibility criteria for listing on the National Register of Historic Places (NRHP) and the fifth will require either avoidance or a Phase II investigation.

On a separate track, GE has developed and is submitting a *Final Revised Vernal Pool Pilot Study Work Plan*, which describes the remediation activities to be conducted as a pilot study in 10 selected vernal pools (as well as seven control vernal pools) in the Rest of River floodplain. The archaeological surveys completed to date have not identified any cultural resources that would be encountered during or affected by implementation of the vernal pool pilot study.

This Unanticipated Discoveries Plan (UDP) has been prepared to address the handling of any human remains or other cultural resources that were not previously identified and that are encountered during the on-site remediation or support activities in Reach 5A, including the vernal pool pilot study. This UDP has been developed to protect any such resources, taking into account the applicable federal regulations embodied in "Protection of Historic Properties" (36 C.F.R. §§ 800.2 through 800.7, 800.12, and 800.13). This plan will be implemented by GE if previously undiscovered archaeological resources and/or human remains are identified. A list of contacts is provided at the end of this plan.

In the case of an unanticipated discovery, GE will follow all relevant state and federal laws and regulations regarding treatment of human remains and other items of cultural patrimony. Potentially relevant laws include the following:

- Native American Graves Repatriation Act (Public Law 101-601; 25 U.S.C. 3001-3031);
- Massachusetts General Laws (M.G.L.) Chapter 38, §6, as amended, Discovery of Unmarked Skeletal Remains;
- M.G.L. Chapter 9, §26A – State Archaeologist's duties;
- M.G.L. Chapter 9, §27C – Cessation of Activities;

- M.G.L. Chapter 7, §38A – Preservation, Excavation, and Analysis of Native American Human Remains;
- M.G.L. Chapter 114, §17 – Preservation of Ancient Burial Places;
- M.G.L. Chapter 272, §71 – Crimes and Punishment: Disinterring Bodies;
- M.G.L. Chapter 272, §73, as amended – Crimes and Punishment: Injuring or Removal of Burial Markers; and
- M.G.L. Chapter 91, §63 – Salvage, Recovery, etc. of Underwater Archaeological Resources; Permits.

1. Human Remains

In the case of an unanticipated discovery of human remains during remediation activities (including the vernal pool pilot study), GE will follow all relevant state and federal laws and recommendations regarding treatment of human remains. GE and AECOM recognize the importance of providing careful and respectful treatment for human remains recovered as an unanticipated discovery or as part of remediation activities. In the event of an unanticipated discovery of human remains, the following protocols will be followed:

(1) Should human remains or evidence of possible burials be encountered, work in the general area of the discovery will stop immediately and the location will be secured and protected from damage and disturbance.

(2) Human remains and associated artifacts will be left in place and not disturbed. No skeletal remains or materials associated with the remains will be collected or removed until appropriate consultation has taken place and a plan of action has been developed.

(3) The county coroner/medical examiner, local law enforcement, the Massachusetts Historical Commission (MHC), and the appropriate federally recognized Native American tribes (or nations) will be notified immediately. The coroner and local law enforcement will make the official ruling on the nature of the remains, being either forensic or archaeological.

(4) If human remains are determined to be Native American, the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated. AECOM will consult with the MHC and appropriate federally recognized Native American tribes (or nations) to develop a plan of action that is consistent with the Preservation, Excavation, and Analysis of Native American Human Remains (M.G.L. Chapter 7, §38A), the Native American Graves Protection and Repatriation Act (25 U.S.C. Ch. 32), and regulations thereunder (43 CFR Part 10).

(5) If human remains are determined to be non-Native American, the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated in accordance with MHC's "Policy and Guidelines for Non-Native Human Remains

Which are Over 100 Years Old or Older" and in a manner consistent with the Advisory Council on Historic Preservation (ACHP) Policy Statement Regarding Treatment of Burial Sites, Human Remains and Funerary Objects (ACHP 2007). Consultation with the MHC and other appropriate parties will be required to determine a plan of action.

In addition to these steps, in the event that there is an inadvertent discovery of human remains that are identified as potentially part of the Stockbridge-Munsee Band of Mohican Indians, the procedures outlined in the *Stockbridge Munsee Community Treatment and Disposition Of Human Remains and Cultural Items/Inadvertent Discovery Protocol*[1] (Stockbridge Munsee Community Band of Mohican Indians 2020) will be followed.

2. Other Archaeological Resources

The following steps will be taken in the event that any archaeological resources other than human remains are encountered by a GE employee, a contractor, or subcontractor during remediation activities, including the vernal pool pilot study. These resources may include, but are not limited to, foundations, walls, stone piles, timber structures, sunken vessels, pits, shafts, and artifact clusters.

(1) Halt Work. Remediation activities within the immediate area of the archaeological resource will be halted ("immediate area" is a context-specific measure, but roughly 50 feet away from the find is generally adequate, although the need for an extension of this area beyond this buffer zone should be considered), and the discovery will be protected from further disturbance. GE's on-site representative will have the authority and responsibility to halt construction in the immediate area of the find.

(2) Notify Project Manager and Cultural Resources Contractor. GE's on-site representative will notify the GE Project Manager at the time when the discovery is made (currently Kevin Mooney, cell: 413-553-6610) and the AECOM cultural resource professional (currently Elisabeth LaVigne, cell: 609-331-1703)

(3) Notify U.S. Environmental Protection Agency (EPA). The GE Project Manager will notify EPA.

(4) Protect the Site. The GE Project Manager and GE's on-site representative will arrange for protection of the find from further disturbance or vandalism.

(5) Notify EPA Archaeologist. The AECOM cultural resource professional will notify the archaeologist serving as EPA's archaeologist of the discovery.

(6) Engage in Consultation. GE, through its cultural resources consultant, will engage in consultation with EPA's archaeologist to determine whether the find could potentially meet the

[1] smc-inadvertent-discovery-policy.pdf

criteria for listing on the NRHP. Sufficient archaeological work will be performed at the unanticipated discovery location to stabilize deposits, protect deposits from scavengers or looters, and collect readily available samples (e.g., radiocarbon dating) that may help pinpoint the age of deposits. If the find is determined to be potentially eligible for listing on the NRHP, additional data recovery work will be performed as required by EPA or determined by GE with EPA approval. Further, if the find is determined to be Indigenous, GE or AECOM will advise with the Stockbridge-Munsee Band of Mohican Indians. Remediation activities will remain halted until EPA advises GE to proceed in the area of the specific unanticipated discovery.

(7) Report. The unanticipated discovery and the actions taken to address it will be documented in a written report that will be submitted to EPA. The report format will be determined by the level of effort required.

3. Implementation and Training

GE will implement the measures outlined in this plan following EPA approval

GE will conduct a short archaeological resource identification training program for remediation field activity staff, including pilot study field staff, in advance of the work. This training program will be presented by the project's cultural resource professional and is intended to help remediation staff identify unanticipated discoveries in the field and report them to GE's on-site representative.

4. References

ACHP (Advisory Council on Historic Preservation), 2007. *Policy Statement Regarding Treatment of Burial Sites, Human Remains and Funerary Objects*. February 23, 2007.

AECOM, 2025. *Revised Phase IB Cultural Resources Survey Report for Reach 5A*. Prepared for General Electric Company, Pittsfield, Massachusetts. June 2025.

Stockbridge Munsee Community Band of Mohican Indians, 2020. *Treatment and Disposition Of Human Remains and Cultural Items/Inadvertent Discovery Protocol*.

Contact List: Cultural Resources Unanticipated Discovery Plan

EPA Representative
Scott Campbell
Taconic Ridge Environmental, Inc.
30 Sunset Drive
Williamstown, Massachusetts 01267
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Appendix I
Vernal Pool Pilot Study Performance Monitoring Plan

June 2025
GE-Pittsfield/Housatonic River Site

ANCHOR QEA AECOM

Vernal Pool Pilot Study Performance Monitoring Plan

June 2025
GE-Pittsfield/Housatonic River Site

Vernal Pool Pilot Study Performance Monitoring Plan

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ATTACHMENTS

Attachment A Vernal Pool Habitat Inventory Standard Operating Procedures

ABBREVIATIONS

AC	activated carbon
bgs	below ground surface
EPA	U.S. Environmental Protection Agency
Final Pilot Work Plan	*Final Revised Vernal Pool Pilot Study Work Plan*
FSP/QAPP	*Field Sampling Plan/Quality Assurance Project Plan*
GE	General Electric Company
mg/kg	milligram per kilogram
Monitoring Plan	*Vernal Pool Pilot Study Performance Monitoring Plan*
N/A	Not applicable
ng/L	nanogram per liter
PAC	powdered activated carbon
PCB	polychlorinated biphenyl
Revised Final Permit	*Revised Final Permit Modification to the 2016 Reissued RCRA Permit and Selection of CERCLA Remedial Action and Operation & Maintenance for Rest of River*
Revised Pilot Work Plan	*Revised Vernal Pool Pilot Study Work Plan*
SOP	standard operating procedure
SPME	solid-phase microextraction
SWAC	spatially weighted average concentration
TBD	to be determined

1 Introduction

On November 13, 2023, the General Electric Company (GE) submitted a *Revised Vernal Pool Pilot Study Work Plan* (Revised Pilot Work Plan; Anchor QEA and Arcadis 2023a) that was subsequently approved by the U.S. Environmental Protection Agency (EPA) on December 5, 2023. As stated in that work plan, the principal objective of the vernal pool pilot study is to evaluate the effectiveness and potential adverse impacts of amendment-based and removal-based remediation of the vernal pools that require remediation. To achieve that objective, one of the activities to be performed prior to implementation of the study is to develop a monitoring program to assess the performance of the amendment-based and removal-based alternatives. This *Vernal Pool Pilot Study Performance Monitoring Plan* (Monitoring Plan) provides the details regarding the post-construction monitoring that will be done to evaluate the effectiveness of the vernal pool pilot testing and is provided as an appendix to the *Final Revised Vernal Pool Pilot Study Work Plan* (Final Pilot Work Plan).[1]

1.1 Vernal Pools Selected for Pilot Study

As described in the Final Pilot Work Plan, 10 vernal pools were selected for inclusion in the pilot study, as approved by EPA. Several criteria were used to select those ten pools, including the following: (1) the total polychlorinated biphenyl (PCB) spatially weighted average concentrations in the surface soil of the pools; (2) pool size; (3) pool accessibility; (4) surrounding habitat; (5) location outside of Core Area 1 habitat; (6) known species within the pool; (7) vegetative cover within the pool; and (8) pool hydrology. Five of these 10 pools will receive removal-based remediation, and the remaining five pools will receive amendment-based remediation (collectively referred to hereafter as "test pools") during the pilot study. These 10 pools are summarized in Section 1.4 and Table 1-3 of the Final Pilot Work Plan and are shown on Figure 1-1. The five amendment pools are 5A-VP-9, 5A-VP-12, 5A-VP-15, 5A-VP-22, and 5A-VP-27. The five pools that will be subject to removal are 5A-VP-4, 5A-VP-7, 5A-VP-16, 5A-VP-52, and 5A-VP-57.

Seven additional vernal pools were selected to be used as field controls (referred to hereafter as "control pools") during the pilot study. The seven control pools are 5A-VP-3, 5A-VP-5, 5A-VP-10, 5A-VP-21, 5A-VP-26, 5A-VP-55, and 5A-VP-61. These control pools will be used to differentiate any changes that may occur in vernal pool ecology as a result of remediation from changes that may occur naturally in response to environmental conditions. The control pools are likewise listed in Table 1-3 of the Final Pilot Work Plan and shown on Figure 1-1.

[1] In addition, this Monitoring Plan describes certain supplemental baseline (pre-construction) sampling of porewater in the amendment-based vernal pools that is necessary to effectively evaluate the effectiveness of the pilot study in those pools.

1.2 Pilot Study Overview

As described in the Final Pilot Work Plan, the pilot study construction activities to be implemented include removal and backfill of soil in the removal-based pools, application of activated carbon (AC) in the amendment-based pools, and site restoration. A summary of the remedial approach for each vernal pool is provided in Table 1-1, which also shows, for each of the amendment-based pools (or portion of such pools), the particular type of amendment (described in the Final Pilot Work Plan and summarized below). The 17 vernal pools to be included in the pilot study, including pertinent information about the pools subject to remediation, are shown on Figures 1-2 through 1-7. The performance criteria for these remediation methods are described in Section 2.

Table 1-1
Vernal Pool Pilot Study Summary

Vernal Pool	Area (acres)	Pool Type	Remediation Approach
5A-VP-9	0.60	Amendment	PAC/sand with mixing (mixing method TBD)
5A-VP-12	0.27	Amendment	SediMite™ (or equivalent) surface application
5A-VP-15 (West)	0.19	Amendment	PAC/sand with till mixing
5A-VP-15 (East)	0.18	Amendment	PAC/sand with tine mixing
5A-VP-22 (North)	0.41	Amendment	PAC/sand surface application
5A-VP-22 (South)	0.41	Amendment	SediMite™ (or equivalent) surface application
5A-VP-27	0.08	Amendment	PAC/sand surface application
5A-VP-4	0.23	Excavation/Restoration	Remove/backfill soil (0- to 1-foot bgs); habitat restoration
5A-VP-7	0.41	Excavation/Restoration	Remove/backfill soil (0- to 1-foot bgs); habitat restoration
5A-VP-16	0.04	Excavation/Restoration	Remove/backfill soil (0- to 1-foot bgs); habitat restoration
5A-VP-52	0.06	Excavation/Restoration	Remove/backfill soil (0- to 1-foot bgs); habitat restoration
5A-VP-57	0.49	Excavation/Restoration	Remove/backfill soil (0- to 1-foot bgs); habitat restoration
5A-VP-3	0.39	Control	N/A
5A-VP-5	0.33	Control	N/A
5A-VP-10	0.17	Control	N/A
5A-VP-21	1.65	Control	N/A
5A-VP-26	0.08	Control	N/A

Vernal Pool	Area (acres)	Pool Type	Remediation Approach
5A-VP-55	0.25	Control	N/A
5A-VP-61	0.26	Control	N/A

1.2.1 Amendment-Based Pilot Study Overview

As described in Section 5.4.1 of the Final Pilot Work Plan, the target application rate for all amendment-based pools is placement of 2.5% by weight powdered activated carbon (PAC) within the top six inches of soil. The amendment will be placed on the surface of the vernal pools using two different application methods, including placement of a PAC/sand blend, and placement of SediMite™ (or an approved equivalent). The PAC/sand blend will be placed with a by-weight ratio of 50% sand and 50% PAC. SediMite™ is a pelletized PAC delivery method of approximately 50% PAC, 30% sand, and 20% bentonite clay. (An approved equivalent pelletized PAC delivery product may be used instead.) When wet, the pellets rapidly disintegrate, releasing the fine-grained PAC.

Following surface application of the amendment, it is anticipated that the amendment will be incorporated into the subsurface over time via natural processes such as bioturbation as well as via burial due to input of new sediment from the surrounding watershed, and decomposition of leaf litter deposited within the pools. Measurements of PAC mixing depths over time will be completed to further evaluate the appropriate depth over which the porewater criterion should be applied, as discussed in Section 4.

Reliance on natural processes to incorporate the PAC into the vernal pool soils will minimize adverse impacts to the habitat within those pools; however, natural mixing is anticipated to be a relatively slow process, and the depth of bioturbation is uncertain. Therefore, mechanical mixing will be tested during the pilot study in two of the five pools (5A-VP-9 and 5A-VP-15) to evaluate the potential effectiveness and implementability of mechanical mixing at increasing the rate of PAC incorporation into the vernal pool soils. The mechanical mixing methods will be tested where the PAC/sand blend is applied. Specifically, two different mixing approaches will be tested in 5A-VP-15. The first mechanical mixing approach will include tilling of the top six inches of soil following PAC/sand placement. This approach will be more aggressive and is expected to result in more thorough mixing but would likely be difficult to implement due to obstructions from existing vegetation, roots, and woody debris. The second mechanical mixing approach will use tines to repeatedly penetrate the surface soil following PAC/sand placement. The tines will function by pushing some PAC into the subsurface and by creating openings for the PAC to migrate downward into the soil. This approach is expected to be easier to implement, but to result in less thorough mixing than tilling. Pool 5A-VP-15 was selected to test the mechanical mixing methods because of the type of vegetation present in this pool (i.e., non-persistent emergent vegetation) is expected to present less challenging mixing

conditions and to recover relatively quickly subsequent to mixing.[2] The mixing methods to be tested in pool 5A-VP-9 (which generally consists of dogwood shrubs, woody debris, and some open areas) will be selected in the field based on effectiveness of the mixing in pool 5A-VP-15. The proposed mixing methods for 5A-VP-9 will be reviewed with EPA prior to implementation. The specific equipment and tools that will be used for mechanical mixing will be determined by the contractor in conjunction with GE during the procurement phase and will be described in the Supplemental Information Package for the pilot study, which will be provided to EPA for review and approval.

1.2.2 Removal-Based Pilot Study Overview

As part of the pilot study, soil removal and backfill areas have been delineated in the five removal-based vernal pools selected for the pilot study (5A-VP-4, 5A-VP-7, 5A-VP-16, 5A-VP-52, and 5A-VP-57), as shown on Figures 1-1, 1-2, 1-5, and 1-6. Vernal pool soils will be removed and backfilled such that the resulting surface area weighted average concentration (SWAC) of PCBs achieves the performance standard of 3.3 milligrams per kilogram (mg/kg) in the upper one foot of soil (discussed in Section 2.1). The vernal pool removal activities will be conducted using low-ground-pressure mechanical excavation equipment and/or construction mats to minimize impacts to surrounding areas. Following excavation and verification that design elevations have been achieved, topsoil will be obtained from an off-site source and placed within the removal areas to re-establish original grades.

1.3 Work Plan Organization

The remainder of this Monitoring Plan is organized into the following sections:

- Section 2 summarizes the PCB and ecological performance criteria for the amendment-based and removal-based vernal pools, as described in Section 2 of the Final Pilot Work Plan.
- Section 3 summarizes the baseline PCB and ecological monitoring that has been completed (additional details are provided in the Baseline Monitoring Report in Appendix C to the Final Pilot Work Plan).
- Section 4 describes the proposed PCB and ecological monitoring and evaluation to be conducted to evaluate performance of the remediation methods used in the pilot study.
- Section 5 describes the vernal pool pilot test and data evaluation and reporting.

[2] In addition to the mixing to be tested in pools 5A-VP-9 and 5A-VP-15, the implementability of both types of mixing (till and tine mixing) will be evaluated for different vegetation types at relatively small plots within other amendment-based pools, as discussed later in this Monitoring Plan.

2 Pilot Study Performance Criteria

The pilot study PCB performance criteria for removal-based and amendment-based test pools are detailed in Sections 2.1 and 2.2. The ecological performance criterion applicable to both sets of test pools is detailed in Section 2.3.

2.1 Removal-Based PCB Performance Criterion

As discussed in Section 1.2, the performance standard for vernal pools, as set forth in the Revised Final Permit issued by EPA for the Rest of River (Revised Final Permit), is to achieve a SWAC of 3.3 mg/kg for total PCBs in the upper one foot of soil of each pool. This standard was used to establish the pilot study design for the five pools selected for the removal-based alternative. PCB-containing soils will be excavated to the depth of one foot and then backfill material will be placed to grade to achieve a post-remediation PCB SWAC equal to or less than 3.3 mg/kg in each vernal pool. This standard will be the performance criterion for the removal-based pools.

2.2 Porewater PCB Performance Criterion and Compliance Depth

As specified in Section II.B.3.b.(1).(b).i of the Revised Final Permit, the treatment of vernal pools with an amendment is required to reduce the bioavailability of PCBs in the vernal pool soil "to a level less than or equivalent to the bioavailability of PCBs associated with 3.3 mg/kg total PCBs in sediment." As described in Section 2.2 of the Final Pilot Work Plan, a porewater-based performance criterion of 40 nanograms per liter (ng/L) was established to assess whether an appropriate reduction of PCB bioavailability has been achieved within these pools. Similar to the removal-based criterion, the porewater-based performance criterion will be assessed on a SWAC-basis.

The appropriate depth over which to apply the porewater performance criterion will be evaluated as part of the pilot study. Following surface application of the amendment, it is expected that the amendment will be incorporated into the sediment over time via natural processes such as bioturbation as well as via burial due to new sediment and leaf litter deposition. As discussed in the Final Pilot Work Plan, the rate and depth to which bioturbation will mix the PAC into the native soils of the vernal pools are uncertain.

The purpose of in situ treatment with carbon amendment is to reduce the bioavailability of PCBs in porewater to achieve the porewater-based performance criterion. The depth over which the performance criterion is applied should be consistent with the depth over which the organisms to be protected may be exposed. Measurements of PAC mixing depths over time will be completed to further evaluate the appropriate depth over which the PCB porewater criterion should be applied, as discussed in Section 4.1. Because the mixing is primarily a result of bioturbation, the observed mixing depths will be indicative of the depth of biological exposure and, therefore, will be used to develop the appropriate compliance depth over which the porewater criterion will be applied.

2.3 Ecological Performance Criterion

Both the removal-based and amendment-based remediation will also be evaluated based on their potential adverse ecological impacts. As indicated in Section II.B.3.b.(2)(e) of the Revised Final Permit, the criterion for success and the means of assessing the ecological effects of these alternatives are to be based upon comparisons of pre-remediation and post-remediation conditions. To accomplish this, the selection of parameters to be evaluated needs to consider the availability of background data, as well as the natural variability in vernal pool dynamics that occurs within and among years. These considerations indicate that the ecological performance criterion should be based on a relatively basic set of parameters that are amenable to being designed, controlled, and managed and can be readily documented and compared with pre-remediation conditions while considering the contemporaneous dynamics as represented through monitoring of the control pools.

Given these considerations, as provided in the Revised Pilot Work Plan and approved by EPA, the overall ecological performance criterion for evaluating the impacts of amendment application or removal and restoration activities on vernal pool environments is that the remediation should not adversely affect the physical characteristics of the vernal pools so as to prevent their continued viability as vernal pools. Comparison of post-remediation results from the test pools to those from the control pools will be used to assess whether any observed deviations from pre-remediation conditions are a result of the remedial activities or natural year-to-year variation.

As discussed in Sections 2.3 and 8 of the Final Pilot Work Plan, numerous field parameters will be measured or monitored in both the test and the control vernal pools after the amendment and removal and restoration work is completed to assess potential ecological impacts of the remediation. Those parameters are described in Section 4.3 and include pool hydrology, the presence of amphibian egg masses and fairy shrimp, amphibian larval development and recruitment, macroinvertebrate community structure, vegetative plant community, general water quality, soil chemistry, and other physical features of the pools. As previously described in the Revised Pilot Work Plan, achievement of the ecological performance criterion will be evaluated by assessing the physical conditions of the restored pools relative to each pool's pre-remediation condition and by conducting within-year comparisons to control pools that have similar pre-remediation physical and biological conditions. Comparisons will consider key physical parameters that are recognized as determining vernal pool viability, including the following:

- Spring/early summer temporary flooding for a duration sufficient to allow obligate vernal pool species (obligate amphibians or fairy shrimp) to carry through their breeding cycle;
- Lack of surface inlets or outlets that would provide surface water conduits for predatory fish to access the pool; and

- Availability of habitat features that indicate development of primary productivity and food sources and provide refuge for developing larvae and egg attachment sites for adult amphibians.

3 Summary of Vernal Pool Baseline Monitoring

Baseline PCB sampling and ecological surveys were conducted in the various test and control pools prior to implementation of the pilot study. In the vernal pools receiving amendment-based treatment, baseline monitoring consisted of bulk soil and porewater PCB sampling, ecological monitoring, and a topographic survey. In the vernal pools receiving removal-based treatment, the baseline monitoring consisted of soil sampling, ecological monitoring, and a topographic survey. The bulk soil and porewater PCB sampling locations were the same locations sampled during the non-residential floodplain pre-design investigation, which was summarized in GE's *Pre-Design Investigation Summary Report for Reach 5A Non-Residential Floodplain Exposure Areas* (Anchor QEA and Arcadis 2023b). In the control pools, only baseline ecological monitoring was performed. Additional details related to baseline sampling and ecological survey methods and results are provided in the *Vernal Pool Pilot Study Baseline Monitoring Report* in Appendix C (Baseline Monitoring Report) to the Final Pilot Work Plan.

4 Pilot Study Monitoring Plan

The pilot test pools will be monitored during construction to ensure construction-based goals are achieved such as removal depth and amendment application rates, and to evaluate the ecological impacts resulting from construction activities, as described in the Final Pilot Work Plan. Longer-term post-construction monitoring will be performed over a period of three years to assess the effectiveness of the pilot testing. This will include monitoring specific to the amendment-based pools and removal-based pools, as described in Sections 4.1 and 4.2. It will also include ecological monitoring and surface water monitoring of the amendment-based pools, removal-based pools, and control pools, as described in Sections 4.3 and 4.4.

4.1 Amendment-Based Pools

Monitoring in the pools subject to placement of amendments will include several elements, including: (1) limited supplemental baseline (i.e., pre-construction) monitoring; (2) periodic post-construction sampling and analysis of porewater PCBs and soil PAC content; and (3) post-construction ecological and surface water characteristics monitoring. A detailed description of each of these elements of the monitoring program is provided below. Porewater PCB and soil PAC content monitoring will be conducted at the locations shown on Figures 4-1 through 4-5.

4.1.1 Supplemental Baseline Monitoring

The pilot study baseline monitoring conducted in 2024 included collection of porewater PCB data to establish the initial porewater PCB concentrations in the five amendment-based pools prior to treatment. Additional baseline (pre-construction) data will be needed in these pools to effectively evaluate the short-term and long-term effectiveness of the pilot study. Supplemental baseline porewater monitoring will include several elements as follows.

- As discussed in Section 2.1.2 of the Baseline Monitoring Report, a cooler containing some of the samples was damaged during shipment to the laboratory and six samples could not be analyzed, including VP9-W/X-13/14, VP9-X-14, VP12-B/C-1/2, VP12-C/D-4, VP22-F/G-2/3, and VP27-F-5. Therefore, supplemental porewater PCB sampling will be completed at these six locations prior to construction.

- As described in Section 5.4.2 of the Final Pilot Work Plan, pool 5A-VP-15 was divided into eastern and western subareas, with different mixing approaches being tested in those two subareas. To provide for an equal number of baseline and post-construction monitoring locations in each subarea, supplemental baseline porewater PCB sampling will be conducted at two new locations (VP15-G/H-13/14 and VP15-H/I-14/15), which will provide a total of five sample locations in each subarea. Similarly, pool 5A-VP-22 was divided into northern and southern subareas, with PAC/sand being placed in the northern subarea and SediMite™ (or

equivalent) being placed in the southern subarea. To provide for an equal number of baseline and post-construction monitoring locations in each subarea, supplemental baseline porewater PCB sampling will be conducted at one new location (VP22-E-3), which will provide a total of five sample locations in each subarea in that pool.

- Previous baseline porewater PCB monitoring was conducted over a depth of 0 to 6 inches. As discussed in Section 2.2, the rate and depth to which bioturbation will mix the PAC into the native soils of the vernal pools are uncertain and thus a 0- to 6-inch sampling interval may not be representative of the depth of amendment effectiveness and biological exposure. Therefore, additional baseline porewater PCB data will be collected from 0 to 3 inches below ground surface (bgs) to evaluate shallower baseline porewater PCB concentrations within each vernal pool. The 0- to 3-inch porewater samples will be collected from the locations shown on Figures 4-1 through 4-5, which include the original baseline monitoring locations and the supplemental sampling locations.

Similar to the prior baseline porewater PCB sampling, a solid-phase microextraction (SPME) passive sampler will be advanced into the surface soil at each location in accordance with the standard operating procedure (SOP) for in situ SPME sampling in Appendix E2 of GE's 2023 *Field Sampling Plan/Quality Assurance Project Plan* (FSP/QAPP) (Arcadis 2023). Based on a conservative estimate of vernal pool porewater concentrations, the SPME passive samplers will remain in place for at least two months, at which point they will be retrieved and analyzed for PCB congeners (by EPA Method 1668C). Sampling locations will be located and recorded using a differential global positioning system.

4.1.2 Post-Construction Porewater PCB Monitoring

Post-construction porewater PCB monitoring will involve the collection and analysis of porewater PCB samples at the locations shown on Figures 4-1 through 4-5. Porewater samples will be collected from the five amendment-based vernal pools at three months, six months, one year, two years, and three years after application of the amendments. The annual post-remediation monitoring events will be conducted at approximately the same time of year as the baseline PCB monitoring (late spring to early summer) to control for potential seasonal variations. These data will be used to evaluate the effectiveness of the amendment in reducing porewater PCB concentrations.

At each sampling location, porewater sampling will be conducted by advancing in situ SPME passive samplers into the surface soils of each vernal pool in accordance with the above-referenced SOP for in situ SPME sampling. Given the uncertainty related to the depth to which bioturbation/mixing will occur (see Section 2.2), porewater will be monitored at two depth intervals (0 to 3 inches and 0 to 6 inches bgs). Because natural mixing of the amendment into the vernal pool soils is expected to occur slowly, the initial post-construction sampling events at three months and six months will include

sampling of only the 0- to 3-inch interval. The annual sampling events (one, two, and three years after construction) will include sampling of both the 0- to 3-inch and the 0- to 6-inch intervals. Based on a conservative estimate of vernal pool porewater concentrations, the SPME passive samplers will remain in place for at least two months, at which point they will be retrieved and analyzed for PCB congeners (by EPA Method 1668C). Sampling locations will be located and recorded using a differential global positioning system.

4.1.3 Post-Construction Soil AC Content Monitoring

This component of the post-construction monitoring program will include collection and analysis of soil samples from the amendment-based vernal pools for AC content at the same locations used for baseline and post-construction porewater PCB monitoring (see Figures 4-1 through 4-5). These data will be used to evaluate PAC mixing depth over time. At each sampling location, soil sampling of the top six inches will be conducted by advancing a three-inch core tube, extracting the material, and sectioning the core material into one-inch intervals, or else by removing soil in one-inch intervals using a hand trowel (or similar device), in accordance with the SOP for vernal pool soil sampling in Appendix D to the 2023 FSP/QAPP. All soil samples will be analyzed for AC (a form of black carbon) using the method developed by Grossman and Ghosh (2009) for quantification of AC and other black carbons. Since the Grossman and Ghosh method quantifies black carbon inclusive of AC, measurement of the background black carbon content will be conducted at all monitoring stations prior to the amendment application.[3]

As noted in the Final Pilot Work Plan, in addition to the mixing to be tested in pools 5A-VP-9 and 5A-VP-15, the implementability of both types of mixing (till and tine mixing) will be evaluated for different vegetation types at relatively small plots within other amendment-based pools (including areas of dogwoods, areas of other types of wetland vegetation, and areas where larger tree roots are present).[4] Therefore, baseline and post-construction monitoring of PAC will be conducted at three locations within each of these additional mixing areas. Sampling locations will be determined in the field following selection and delineation of these additional mixing test areas. Because the testing of mixing in these pools will be conducted to evaluate the implementability of mixing in various types of vegetation, monitoring of porewater PCB concentrations will not be conducted in these areas.

Samples for AC analysis will be collected prior to amendment application, immediately following amendment application, and then on the same frequency as the porewater PCB sampling (i.e., three months, six months, one year, two years, and three years after completion of the amendment

[3] While it is unlikely that significant native black carbon is present in the vernal pools, black carbon is naturally occurring in many environments and should be characterized prior to measuring in situ AC content.

[4] The exact number, areas, and sizes of these test plots will be determined in the field in consultation with a project wetland scientist, and the selected pools will be reviewed with EPA prior to implementation.

application). At each sampling location, soil sampling will be conducted by advancing a three-inch core tube, extracting the material, and sectioning the core material into one-inch intervals or else removing soil in one-inch intervals using a hand trowel (or similar device) in accordance with the SOP for pool soil sampling provided in Appendix D to the 2023 FSP/QAPP. All soil samples will be analyzed using the Grossman and Ghosh (2009) method, as described above. All sampling locations will be located and recorded using a differential global positioning system.

4.2 Removal-Based Pools

Post-construction monitoring of the removal-based pools will focus on evaluating the success of restoration efforts in those pools, as well as assessment of any colonization of invasive plant species. This will consist of the ecological monitoring described in Section 4.3 and the water depth/hydroperiod and surface water monitoring described in Section 4.4. Post-construction monitoring for the vernal pools receiving removal-based treatment will be conducted annually (starting in the spring vernal pool breeding season following completion of construction) for three years to assess yearly variance in ecological parameters. This monitoring will be conducted during the same season as the prior baseline monitoring and ecological surveys to control for seasonal variations. No additional soil PCB sample collection and analysis will be performed in the pilot study pools subject to removal.

4.3 Ecological Monitoring

Post-construction ecological monitoring will be performed in all test and control pools. Ecological monitoring will be performed annually during each of the three years after completion of construction. The annual post-remediation ecological monitoring events will be conducted during the same time of year as the baseline surveys (i.e., spring vernal pool breeding season to summer) to control for potential seasonal variations. A review will also be performed annually at the end of the growing season. The ecological monitoring will include the following elements:

- A survey of the plant community will be conducted using randomly placed monitoring plots, line-intercept sampling, or other standard accepted methods that will provide detailed species-specific information and allow an assessment of plant community composition, canopy cover, plant vigor and health, and presence of invasive plant species, including a comparison with pre-remediation conditions. The plant community survey will be conducted between June 15 and August 15 during each of the three years of monitoring.

- Data will be collected on hydroperiod and maximum flooding depths, including an assessment of surface water flooding conveyance into and out of each pool as discussed further in Section 4.4.

- Detailed topographic data will be collected through use of traditional topographic surveys or an alternative method to substantiate that topographic conditions are consistent with the design criteria (e.g., line level data obtained using established control points such as the surveyed nails in trees). The bathymetric data will be collected along with the hydrologic data.

- Amphibian egg mass counts and surveys for fairy shrimp presence will be performed following remediation. These data will be collected each of the three monitoring years as early as possible during the vernal pool breeding season, considering seasonal trends documented to be occurring in the specific year of the survey. Based on recent previous data, the egg mass and fairy shrimp counts are anticipated to occur between early April and late May but may need to be adjusted based upon weather and other factors. Two rounds of egg mass counts will be conducted in each pool to encompass the entire egg-deposition period for both wood frogs and spotted salamanders. These surveys will be spaced out over approximately three weeks during the early portion of the breeding season but may be adjusted based on weather and local migration patterns.

- Dip net surveys will be conducted to monitor amphibian larval development and assess recruitment into the local population and to assess aquatic macroinvertebrate community structure within each pool. Up to three rounds of dip net surveys for amphibian larvae and macroinvertebrates will be conducted, spaced out through the larval development period. This is expected to result in surveys every two to three weeks from mid-May to early July in each pool, but again they may be adjusted based upon weather and larval development rates.

- Soil profile descriptions within the removal-based treatment pools will be collected to assess development of hydric soil conditions in the top 12 inches, being careful not to extend into the underlying native floodplain soils. Soil profile descriptions are not needed in the amendment-based pools.

- Soil samples will be collected and tested for basic soil chemistry and composition parameters in the vernal pools—specifically, pH, organic carbon content, moisture content, and grain size distribution. These soil samples will be collected coincident with the vegetation sampling (i.e., between June 15 and August 15).

- An assessment will be conducted of the habitat surrounding each vernal pool and any potential vernal pool networking. This will specifically take into account habitat changes that may have occurred from the access, staging, and associated construction activities.

Attachment A contains the Vernal Pool Habitat Inventory SOP that was attached to the Revised Pilot Work Plan, which describes the methods that were used for collection of the baseline ecological

survey information. Those methods will also be used for collection of the post-remediation ecological information.

The post-remediation ecological monitoring data will be reviewed on a yearly basis to evaluate achievement and maintenance of the ecological performance criterion, as described in Section 8.4 of the Final Pilot Work Plan and Section 5.1.2.

4.4 Hydrological and Surface Water Monitoring

As described previously, ecological monitoring will be conducted in all test and control pools. All of these pools will also be monitored for surface water elevations and depth and hydroperiod throughout the designated vernal pool breeding period, using similar procedures to those described in the Vernal Pool Habitat Inventory SOP in Attachment A. This monitoring will focus on documenting vernal pool hydrology between March 1 and July 1 each year and will be used to assess the effects of the pilot testing on vernal pool hydrology. Both the depth and duration of surface water flooding in pilot test pools will be compared to those in the control pools, as well as to background data on hydrology in such pools, to assess whether there are any hydrologic impacts of the pilot testing on the breeding habitat suitability. This hydrologic impact assessment will require the consideration of multiple natural factors, which in combination could affect the depth and duration of flooding (in addition to any effects of the pilot testing). Several years of monitoring the vernal pools within Reach 5A have demonstrated significant yearly and seasonal variation in hydrology within and among vernal pools. Factors such as varying precipitation patterns, inflow-outflow conditions, basin microtopography, and soil conditions all contribute to determining vernal pool hydrology and will require consideration in a qualitative assessment of the effect of applying the amendments and/or the removal and restoration procedure.

In addition, all test and control pools will be monitored for water quality characteristics (specifically pH, temperature, alkalinity, hardness, and dissolved oxygen). These data will be collected using a YSI field meter (or similar) once per year during the spring flooding period of each pool.

4.5 Summary

A summary of the monitoring program is provided in Table 4-1.

Table 4-1
Vernal Pool Pilot Test Monitoring Summary

Monitoring Component	Pre-Construction	Post-Construction					
		Immediately Post-Construction	Month 3	Month 6	Year 1	Year 2	Year 3
Control Pools							
Ecological[1]					X	X	X
Surface water characteristics[2]					X	X	X
Water depth/ hydroperiod					X	X	X
Amendment Pools							
Supplemental Baseline	X						
PCB porewater[3]			X	X	X	X	X
AC content (via black carbon testing)	X	X	X	X	X	X	X
Ecological[1]					X	X	X
Surface water characteristics[2]					X	X	X
Water depth/ hydroperiod					X	X	X
Removal Pools							
Ecological (including soil profile descriptions)[1]					X	X	X
Surface water characteristics[2]					X	X	X
Water depth/ hydroperiod					X	X	X

Notes:

1. Ecological parameters will be monitored seasonally during each of the three annual monitoring events consistent with pre-remediation monitoring. Vernal pool breeding activity will be monitored each spring; vegetative growth will be monitored each summer and at the end of the growing season.
2. pH, temperature, alkalinity, hardness, and dissolved oxygen will be measured once per year during the spring flood period of each pool for each of the three annual monitoring events.
3. Porewater PCBs will be analyzed in the 0- to 3-inch interval during month three and month six sampling events, and in the 0 to 3- and 0- to 6-inch intervals during the annual sampling events.

5 Data Evaluation and Reporting

5.1 Application of Performance Criteria

Post-remediation monitoring data collected from the test pools will be evaluated against the applicable PCB and ecological performance criteria, as described in Section 8.5 of the Final Pilot Work Plan and the following subsections. This information will be used to facilitate the selection of remediation approaches for the remainder of the vernal pools in Reach 5A (and eventually for additional vernal pools identified in downstream reaches). If both treatment approaches (i.e., removal-based and amendment-based) are able to meet the established performance criteria, other factors (such as sensitive habitat or ease of access) will be used to determine which remedial approach is best applied to the remaining vernal pools.

5.1.1 Evaluation of Achievement of PCB Performance Criteria

Post-remediation monitoring data collected from the amendment-based test pools will be evaluated against the applicable PCB porewater performance criterion described in Section 2. For these pools, the measured post-construction porewater PCB concentrations will be averaged within each pool to provide a post-remediation porewater PCB SWAC that will be used to compare to the porewater-based performance criterion of 40 ng/L. Averaging areas for the porewater PCB SWAC calculation are provided in Table 1-1. It is expected that any pools receiving amendment placed directly on the vernal pool soil, either as a discrete thin layer or mixed into the surficial pool soils, will require more than one year for the amendment to mix and equilibrate with the vernal pool soils and produce the desired reductions in porewater PCB concentrations.

As discussed in Section 2.2, the depth over which the performance criterion is applied in the amendment pools should be consistent with the depth over which the organisms to be protected may be exposed. Measurements of PAC mixing depths and porewater PCB concentrations over time in two depth intervals (0 to 3 inches and 0 to 6 inches) will be used to further evaluate the appropriate depth over which the porewater criterion should be applied. Because the mixing is primarily a result of bioturbation, the observed long-term mixing depths at the conclusion of the three-year monitoring period will be indicative of the depth of biological exposure and therefore will be used to develop the appropriate depth over which the porewater criterion will be applied.

In the removal-based pools, soils will be removed and replaced with clean backfill. As a result, the removal-based alternatives will achieve the removal-based PCB performance criterion (i.e., the Revised Final Permit performance standard of 3.3 mg/kg) immediately following construction. As described in Section 4.2, no post-construction PCB monitoring is being conducted in the removal pools.

5.1.2 Evaluation of Achievement of Ecological Performance Criterion

For all test pools, the results of the ecological monitoring performed during the post-remediation period will be compared to pre-remediation conditions, as well as to conditions within one or more of the control pools, to evaluate impacts of amendment application or removal and restoration activities on the vernal pool environments and to evaluate whether any observed deviations from pre-remediation conditions are a result of the remediation activities or natural year-to-year variation. This evaluation will be used to assess the achievement of the ecological performance criterion specified in Section 2.3.

5.2 Reporting

Reporting of the results from the performance monitoring is described in Sections 8.6 and 9 of the Final Pilot Work Plan.

6 References

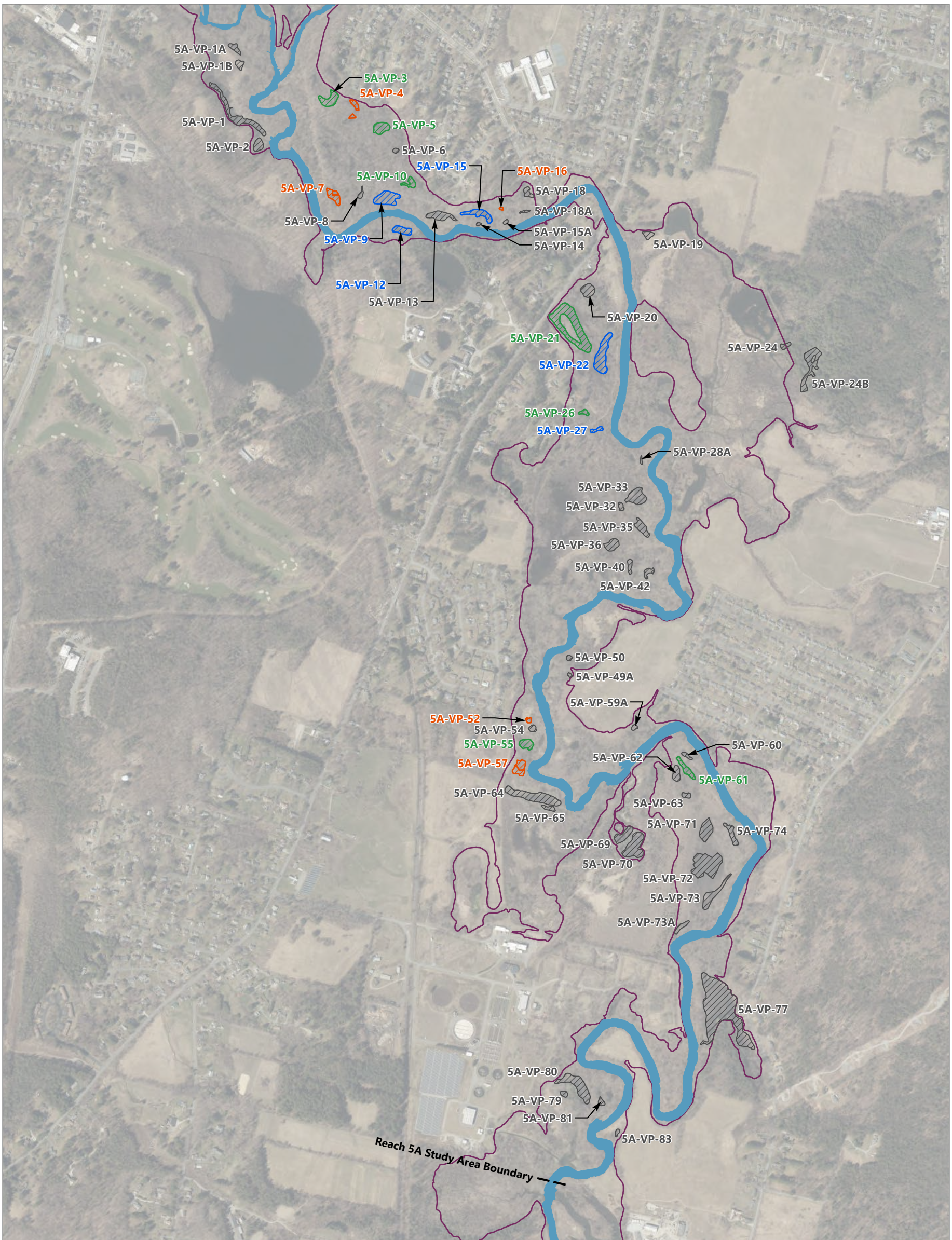
Anchor QEA and AECOM, 2023a. *Revised Vernal Pool Pilot Study Work Plan.* Prepared for General Electric Company. November 2023.

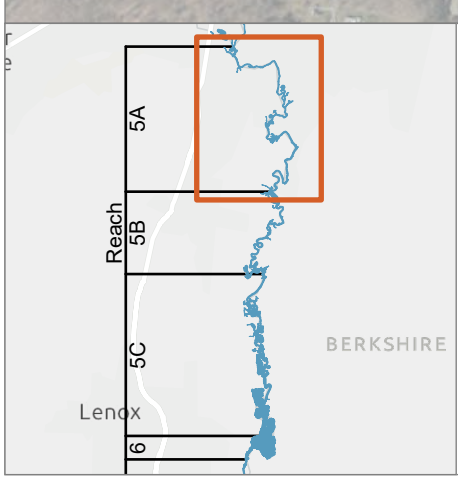
Anchor QEA and Arcadis, 2023b. *Pre-Design Investigation Summary Report for Reach 5A Non-Residential Floodplain Exposure Areas*. September 2023.

Arcadis, 2023. *Field Sampling Plan / Quality Assurance Project Plan GE-Pittsfield/Housatonic River Site*. Prepared for the General Electric Company, Pittsfield, Massachusetts. December 2023.

Grossman A. and U. Ghosh, 2009. "Measurement of Activated Carbon and Other Black Carbons in Sediments." *Chemosphere* 75 (2009) 469–475.

Figures





LEGEND:

- 1 mg/kg PCB Isopleth
- Channel (AECOM and Anchor QEA 2020)

Vernal Pools (AECOM 2020, GE 2021)

- Other Non-Pilot Study Pools

Vernal Pools Selected for Pilot Study

- Excavation/Restoration
- Amendment
- Control

NOTES:
1. Aerial imagery from MassGIS 2023.
2. Core Area 3 habitat was developed using 2022 Natural Heritage & Endangered Species Program data.

0 1,000
Feet

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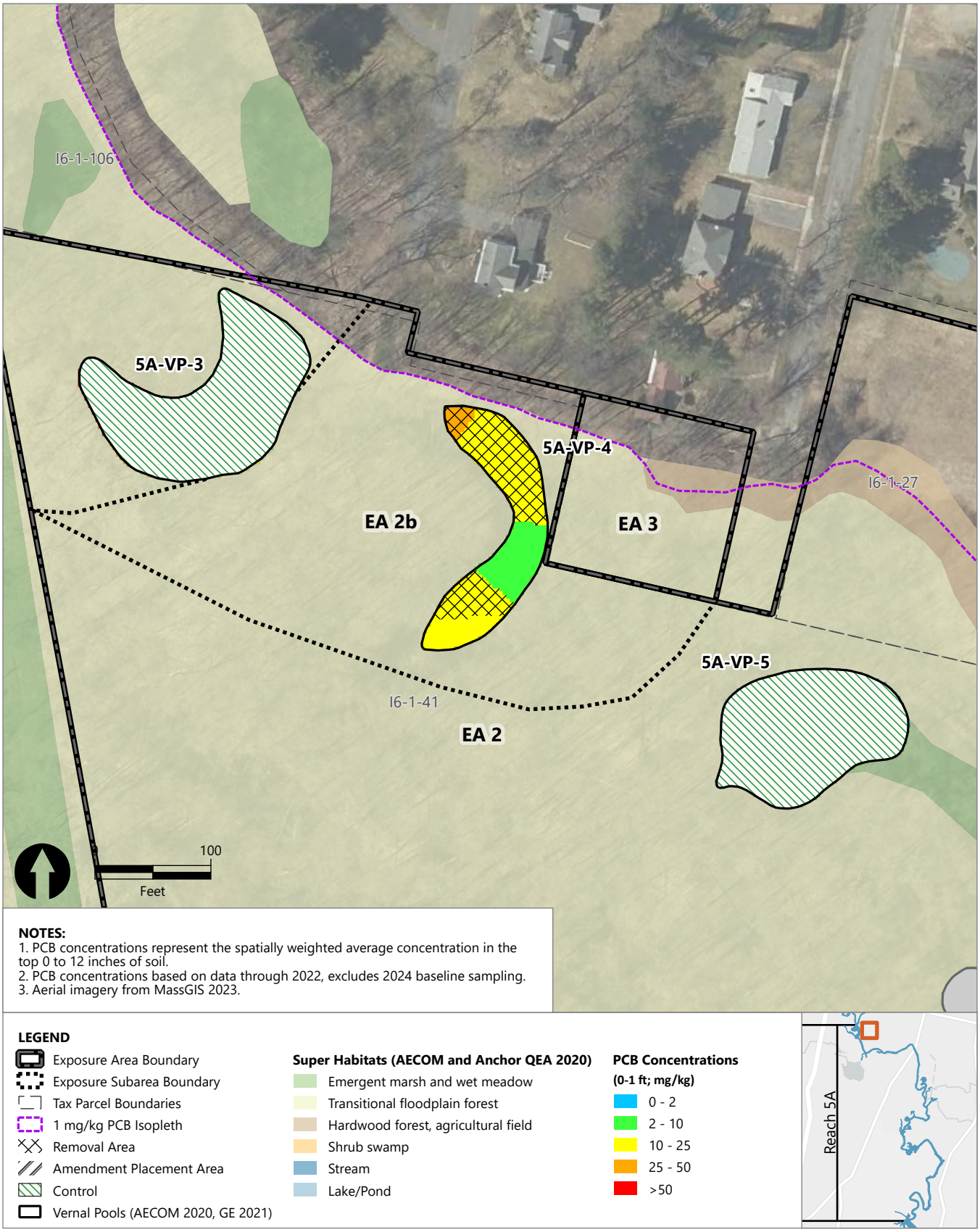
Filepath: \\gstfile01\GIS\Jobs\GE_0469\HousatonicRiver\Maps\Reports\VernalPools\PilotStudy\WorkPlan\R5APilotStudyWorkPlan.aprx\PMWP Figure 1-1 Summary of Vernal Pools

ANCHOR QEA

Figure 1-1
Summary of Vernal Pools Selected for Pilot Study
Vernal Pool Pilot Study Performance Monitoring Work Plan
Housatonic River – Rest of River



NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCB concentrations based on data through 2022, excludes 2024 baseline sampling.
3. Aerial imagery from MassGIS 2023.

LEGEND

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Removal Area
- Amendment Placement Area
- Control
- Vernal Pools (AECOM 2020, GE 2021)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

PCB Concentrations (0-1 ft; mg/kg)

- 0 - 2
- 2 - 10
- 10 - 25
- 25 - 50
- >50

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Filepath: \\gstfile01\GIS\Jobs\GE_0469\HousatonicRiver\Maps\Reports\VernalPools\PilotStudy\WorkPlan\R5APilotStudyWorkPlan.aprx\PMWP Figure 1-2to8 Pilot Study Vernal Pools

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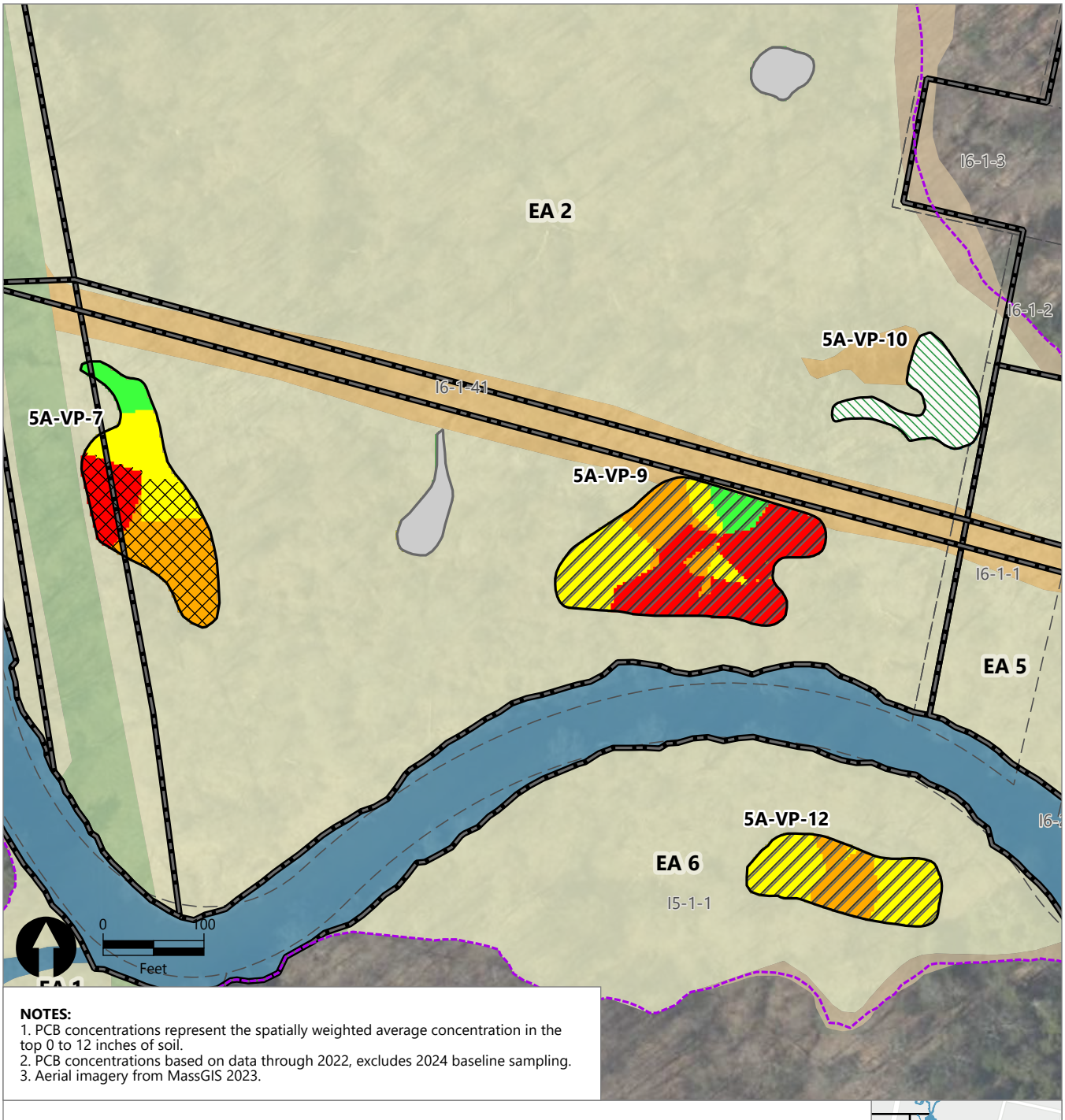
Figure 1-2
Pilot Study Vernal Pools: Test Pool (5A-VP-4); Control Pools (5A-VP-3; 5A-VP-5)
Vernal Pool Pilot Study Performance Monitoring Work Plan
Housatonic River – Rest of River



NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCB concentrations based on data through 2022, excludes 2024 baseline sampling.
3. Aerial imagery from MassGIS 2023.

LEGEND

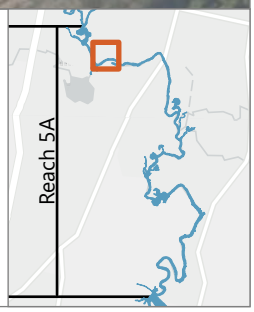
- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Removal Area
- Amendment Placement Area
- Control
- Vernal Pools (AECOM 2020, GE 2021)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

PCB Concentrations (0-1 ft; mg/kg)

- 0 - 2
- 2 - 10
- 10 - 25
- 25 - 50
- >50



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Filepath: \\gstfile01\GIS\Jobs\GE_0469\HousatonicRiver\Maps\Reports\VernalPools\PilotStudy\WorkPlan\R5APilotStudyWorkPlan.aprx\PMWP Figure 1-2to8 Pilot Study Vernal Pools

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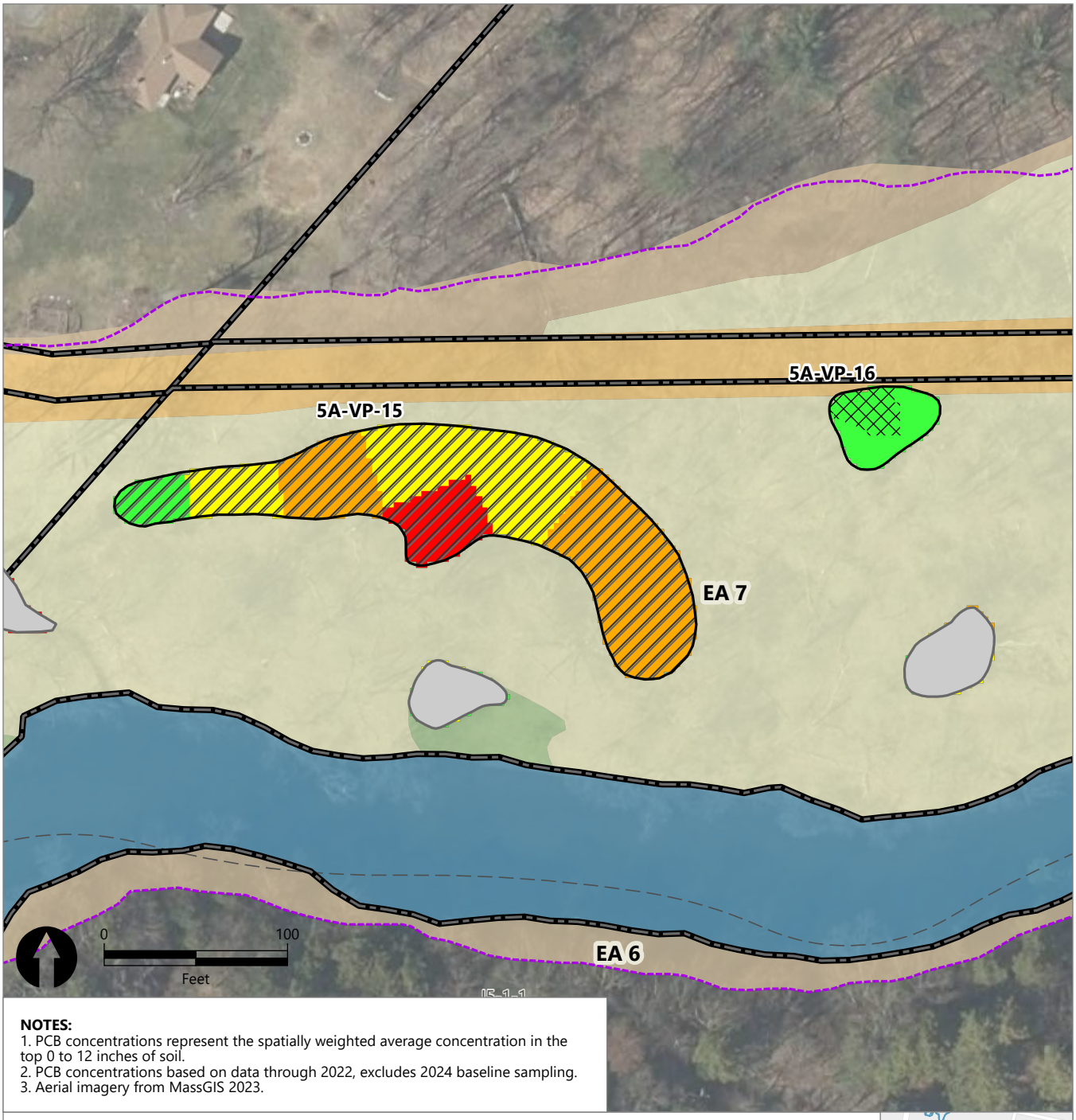
Figure 1-3
Pilot Study Vernal Pools: Test Pools (5A-VP-7; 5A-VP-9; 5A-VP-12); Control Pool (5A-VP-10)

Vernal Pool Pilot Study Performance Monitoring Work Plan
Housatonic River – Rest of River



NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCB concentrations based on data through 2022, excludes 2024 baseline sampling.
3. Aerial imagery from MassGIS 2023.

LEGEND

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Removal Area
- Amendment Placement Area
- Control
- Vernal Pools (AECOM 2020, GE 2021)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond

PCB Concentrations (0-1 ft; mg/kg)

- 0 - 2
- 2 - 10
- 10 - 25
- 25 - 50
- >50

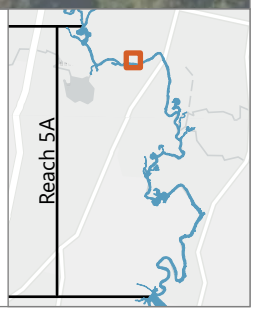


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Figure 1-4
Pilot Study Vernal Pools: Test Pools (5A-VP-15; 5A-VP-16)
Vernal Pool Pilot Study Performance Monitoring Work Plan
Housatonic River – Rest of River

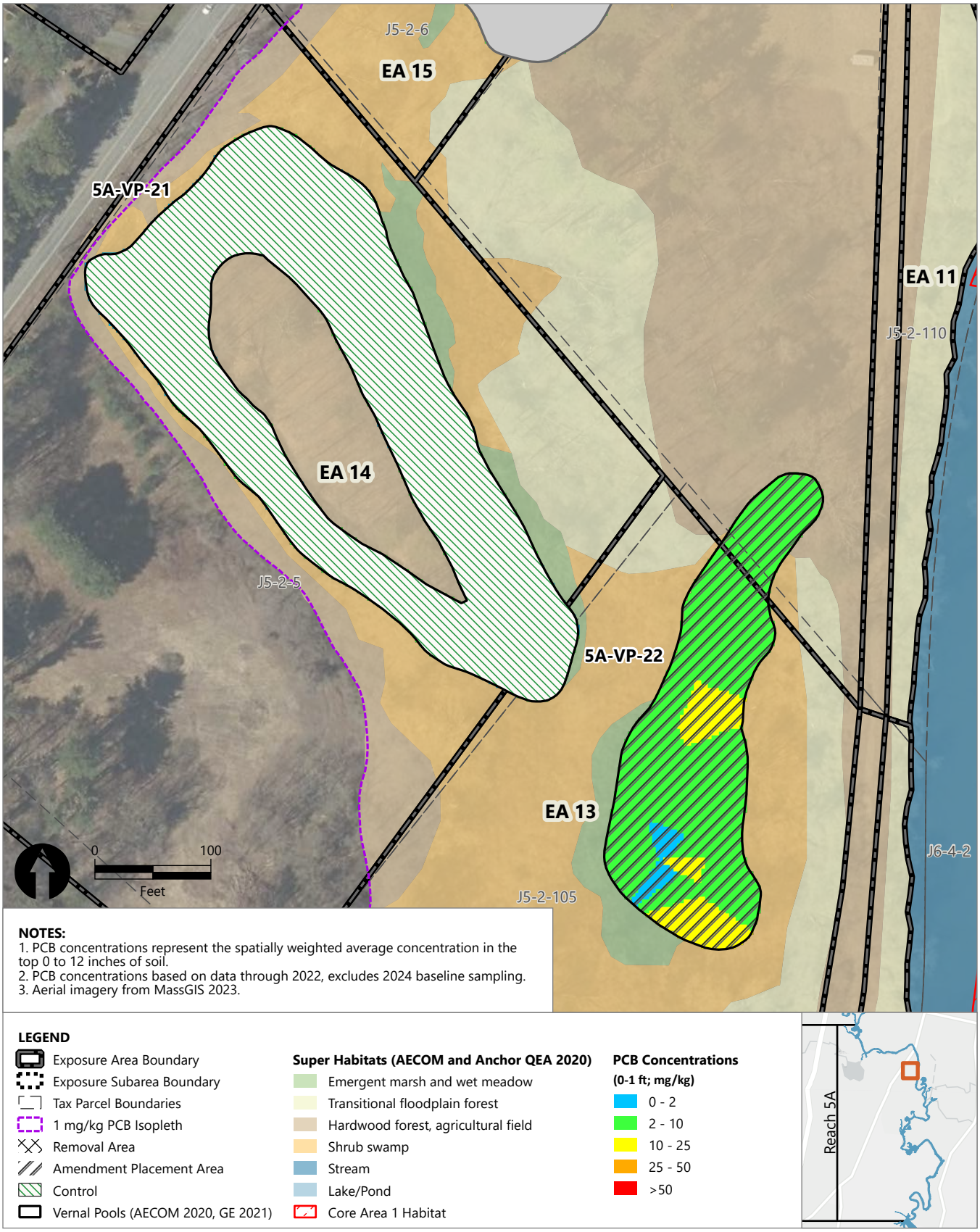

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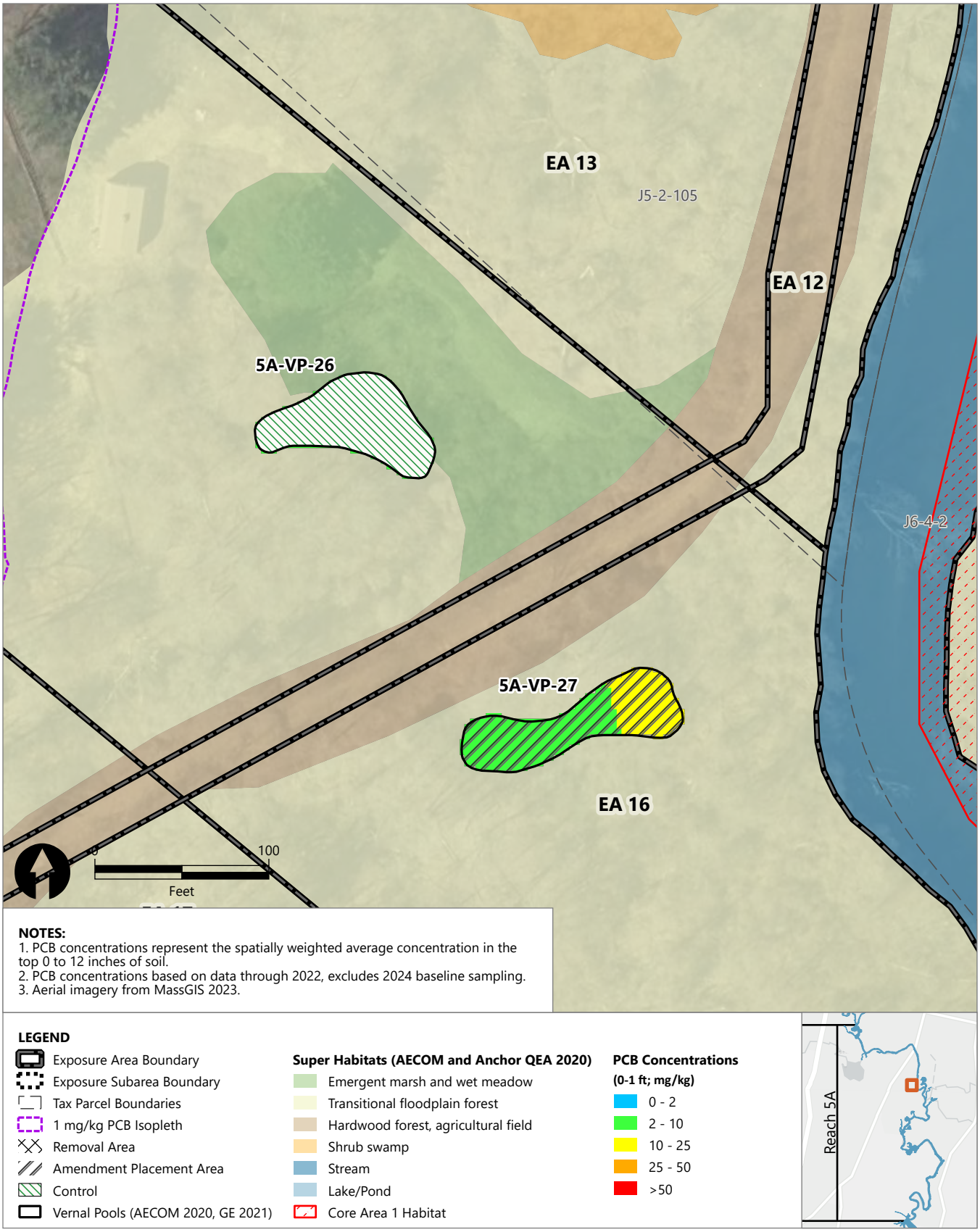
Figure 1-5
Pilot Study Vernal Pools: Test Pool (5A-VP-22); Control Pool (5A-VP-21)
Vernal Pool Pilot Study Performance Monitoring Work Plan
Housatonic River – Rest of River



NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCB concentrations based on data through 2022, excludes 2024 baseline sampling.
3. Aerial imagery from MassGIS 2023.

LEGEND

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Removal Area
- Amendment Placement Area
- Control
- Vernal Pools (AECOM 2020, GE 2021)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond
- Core Area 1 Habitat

PCB Concentrations (0-1 ft; mg/kg)

- 0 - 2
- 2 - 10
- 10 - 25
- 25 - 50
- >50

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Figure 1-6
Pilot Study Vernal Pools: Test Pool (5A-VP-27); Control Pool (5A-VP-26)
Vernal Pool Pilot Study Performance Monitoring Work Plan
Housatonic River – Rest of River

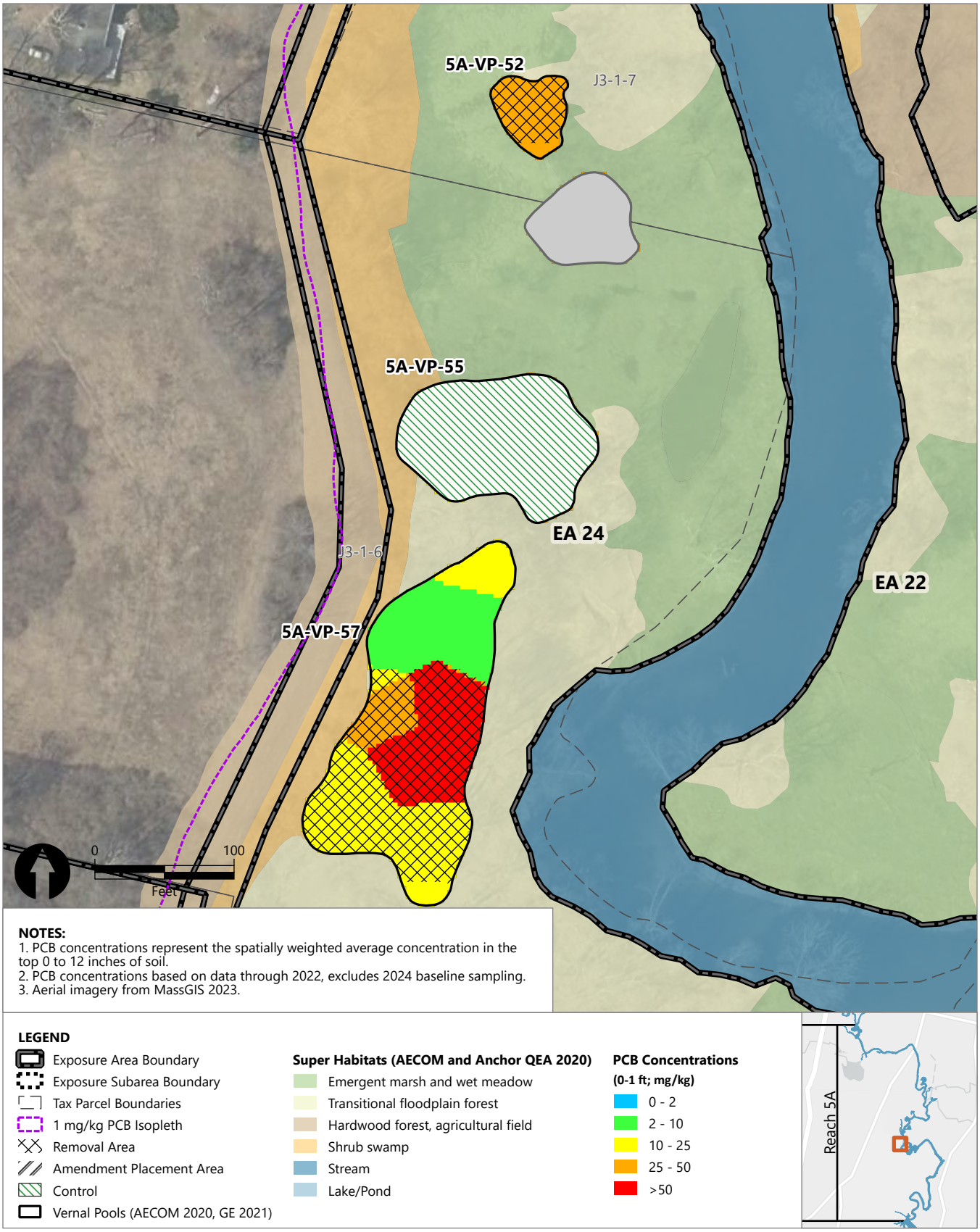

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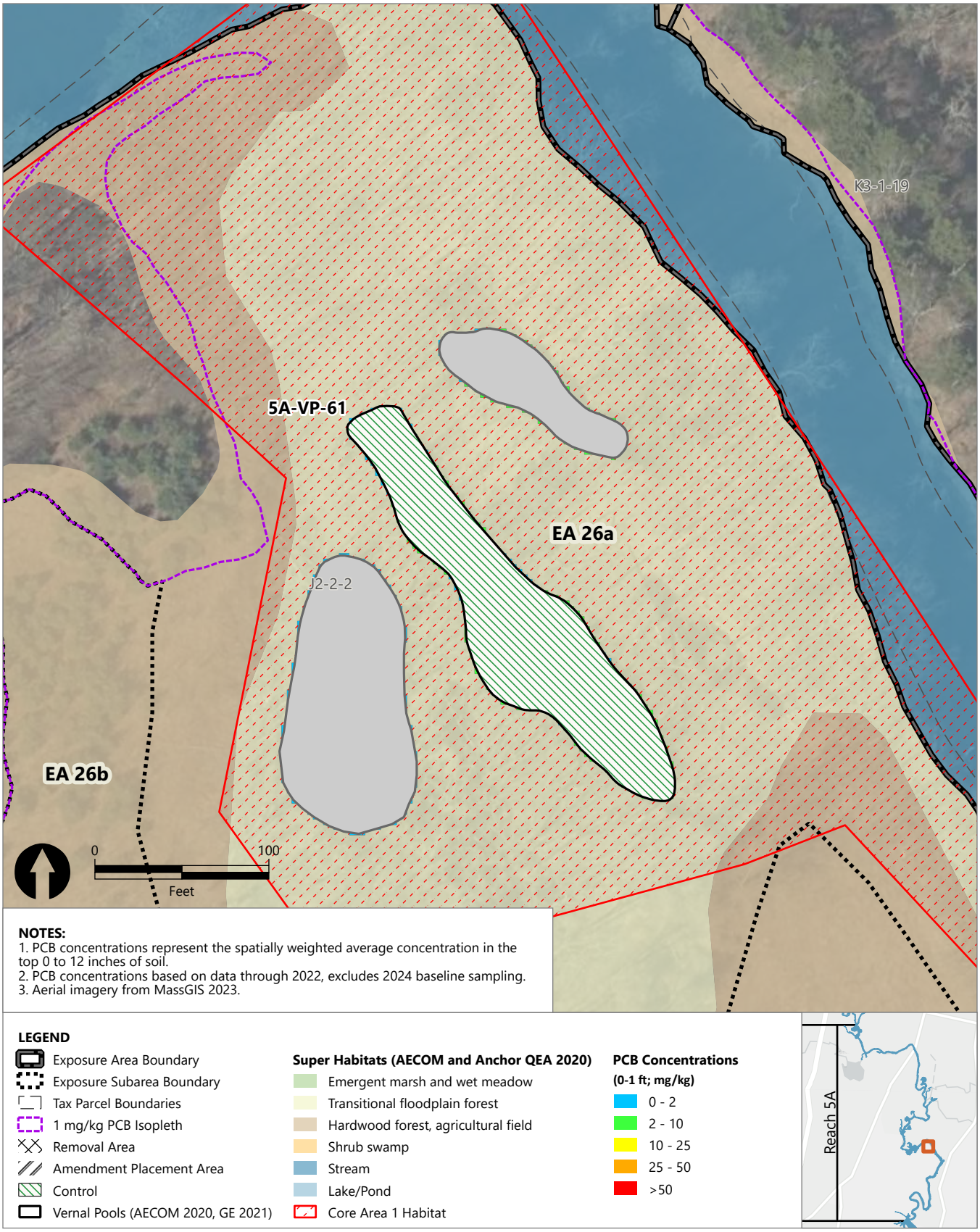
Figure 1-7
Pilot Study Vernal Pools: Test Pools (5A-VP-52; 5A-VP-57); Control Pool (5A-VP-55)
Vernal Pool Pilot Study Performance Monitoring Work Plan
Housatonic River – Rest of River



NOTES:
1. PCB concentrations represent the spatially weighted average concentration in the top 0 to 12 inches of soil.
2. PCB concentrations based on data through 2022, excludes 2024 baseline sampling.
3. Aerial imagery from MassGIS 2023.

LEGEND

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Removal Area
- Amendment Placement Area
- Control
- Vernal Pools (AECOM 2020, GE 2021)

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond
- Core Area 1 Habitat

PCB Concentrations (0-1 ft; mg/kg)

- 0 - 2
- 2 - 10
- 10 - 25
- 25 - 50
- >50

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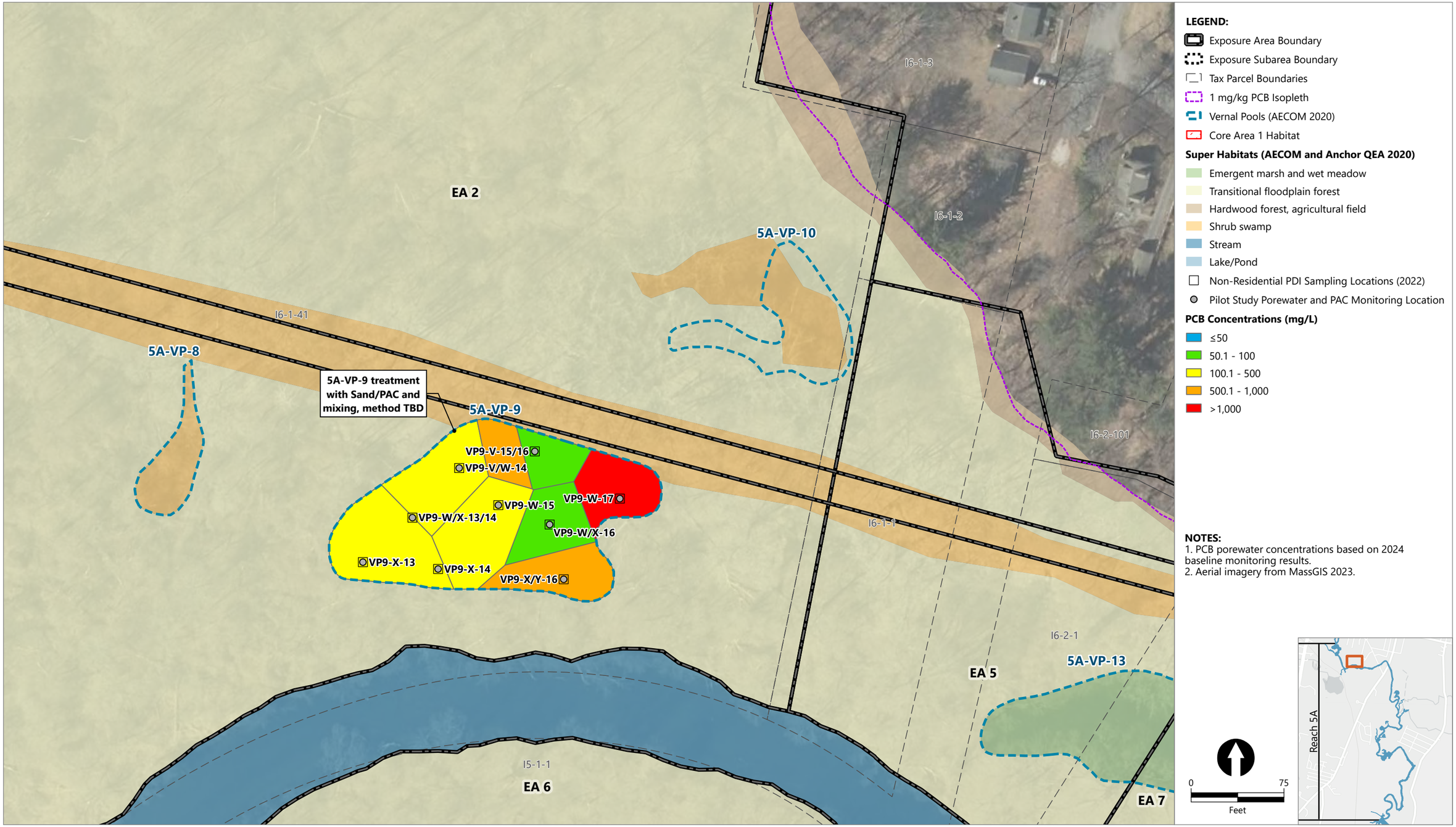
Figure 1-8
Pilot Study Vernal Pools: Control Pool (5A-VP-61)
Vernal Pool Pilot Study Performance Monitoring Work Plan
Housatonic River – Rest of River



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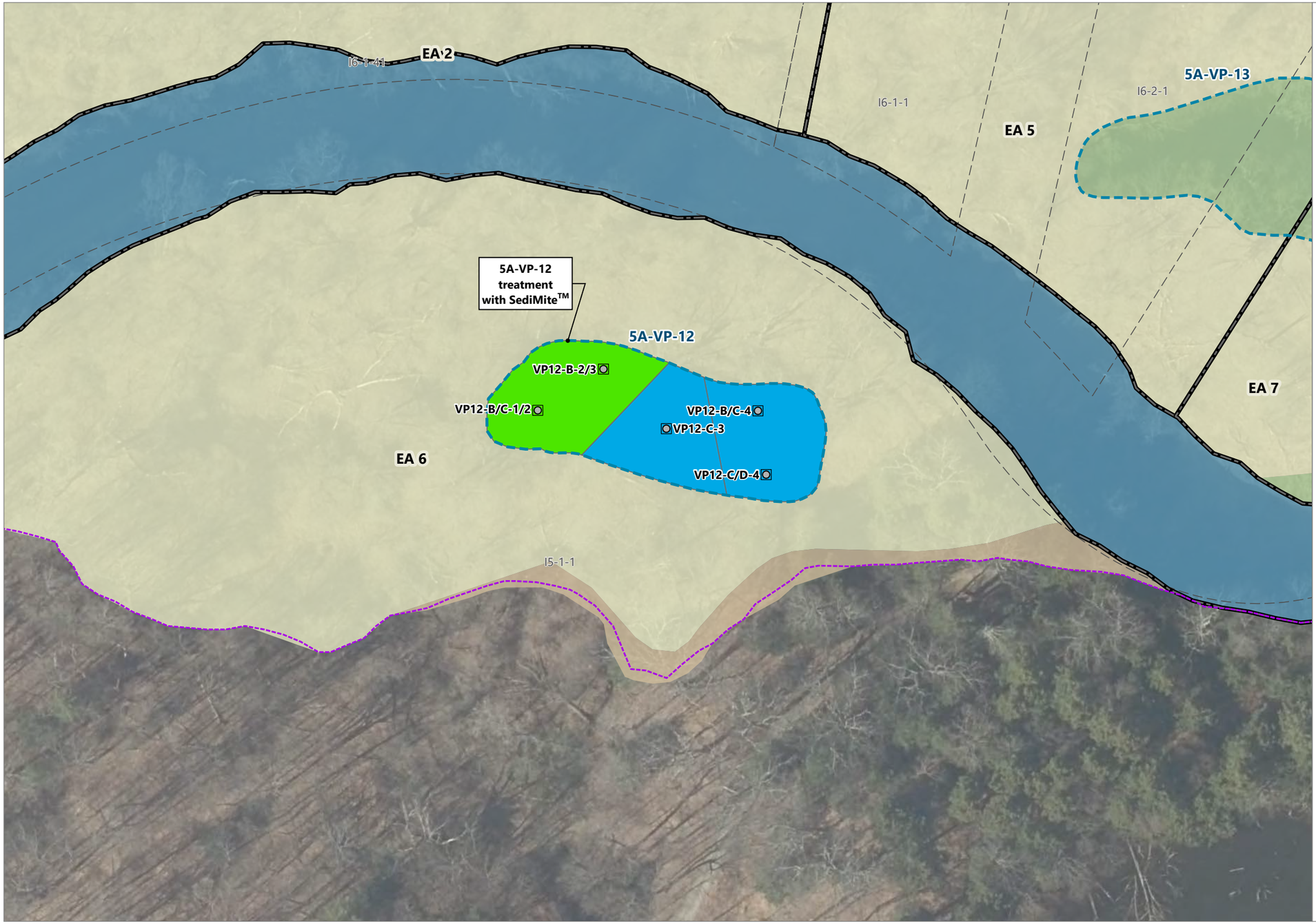
Filepath: \\gstfile01\GIS\Jobs\GE_0469\HousatonicRiver\Maps\Reports\VernalPools\PilotStudy\WorkPlan\R5APilotStudyWorkPlan.aprx\PMWP Figure 4-1to5 Porewaster Soil Monitoring

ANCHOR QEA

Figure 4-1
Pilot Study Porewater And Soil Monitoring Location: 5A-VP-9
Vernal Pool Pilot Study Performance Monitoring Work Plan
Housatonic River – Rest of River



LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)
- Core Area 1 Habitat

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond
- Non-Residential PDI Sampling Locations (2022)
- Pilot Study Porewater and PAC Monitoring Location

PCB Concentrations (mg/L)

- ≤50
- 50.1 - 100
- 100.1 - 500
- 500.1 - 1,000
- >1,000

NOTES:
1. PCB porewater concentrations based on 2024 baseline monitoring results.
2. Aerial imagery from MassGIS 2023.

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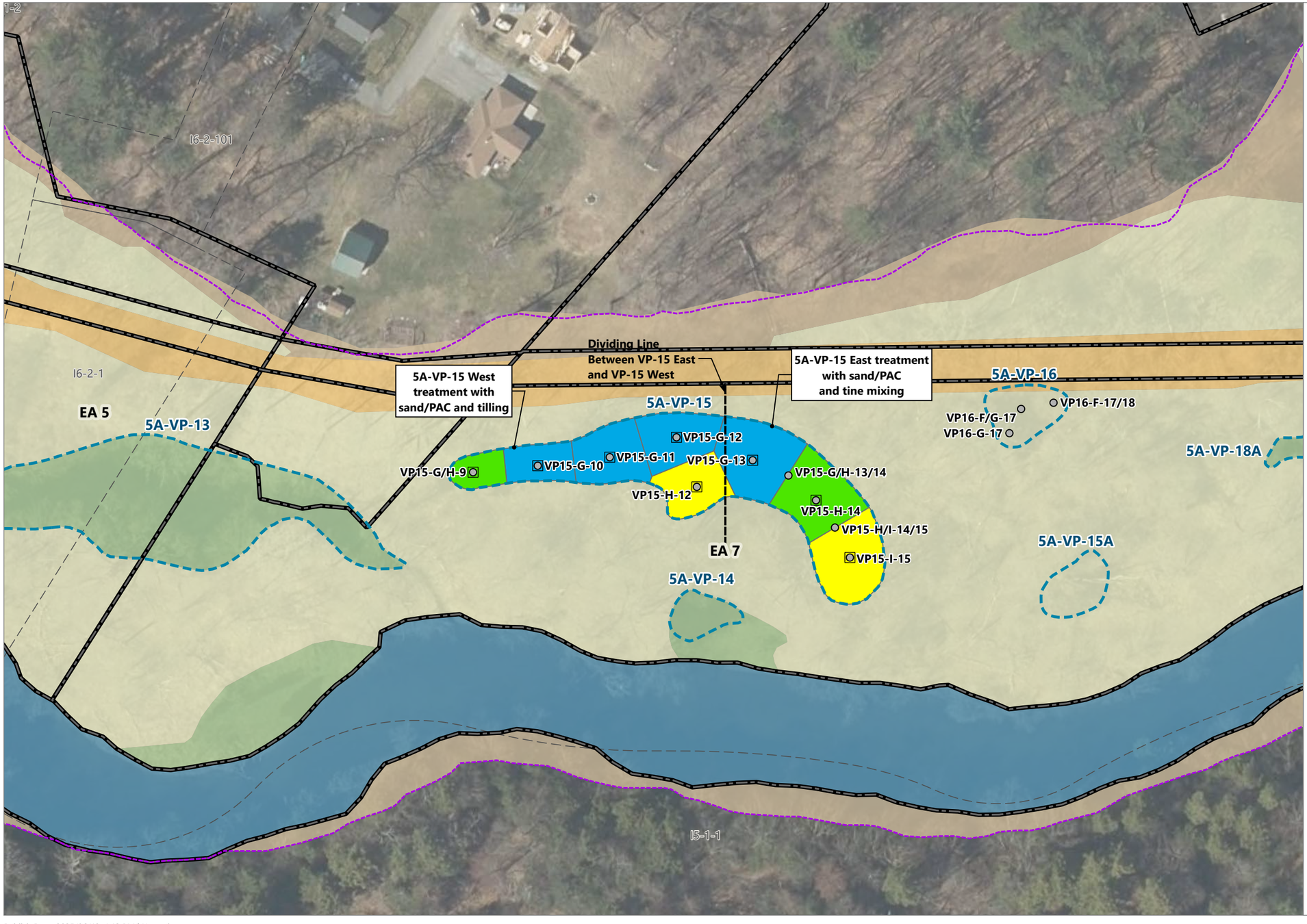
Filepath: \\gstfile01\GIS\Jobs\GE_0469\HousatonicRiver\Maps\Reports\VernalPools\PilotStudy\WorkPlan\R5APilotStudyWorkPlan.aprx\PMWP Figure 4-1to5 Porewaster Soil Monitoring

ANCHOR QEA

Figure 4-2
Pilot Study Porewater And Soil Monitoring Location: 5A-VP-12
Vernal Pool Pilot Study Performance Monitoring Work Plan
Housatonic River – Rest of River



LEGEND:

- Exposure Area Boundary
- Exposure Subarea Boundary
- Tax Parcel Boundaries
- 1 mg/kg PCB Isopleth
- Vernal Pools (AECOM 2020)
- Core Area 1 Habitat

Super Habitats (AECOM and Anchor QEA 2020)

- Emergent marsh and wet meadow
- Transitional floodplain forest
- Hardwood forest, agricultural field
- Shrub swamp
- Stream
- Lake/Pond
- Non-Residential PDI Sampling Locations (2022)
- Pilot Study Porewater and PAC Monitoring Location

PCB Concentrations (mg/L)

- ≤50
- 50.1 - 100
- 100.1 - 500
- 500.1 - 1,000
- >1,000

NOTES:
1. PCB porewater concentrations based on 2024 baseline monitoring results.
2. Aerial imagery from MassGIS 2023.

0 75
Feet

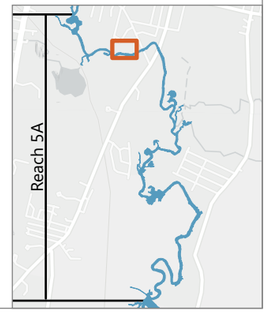


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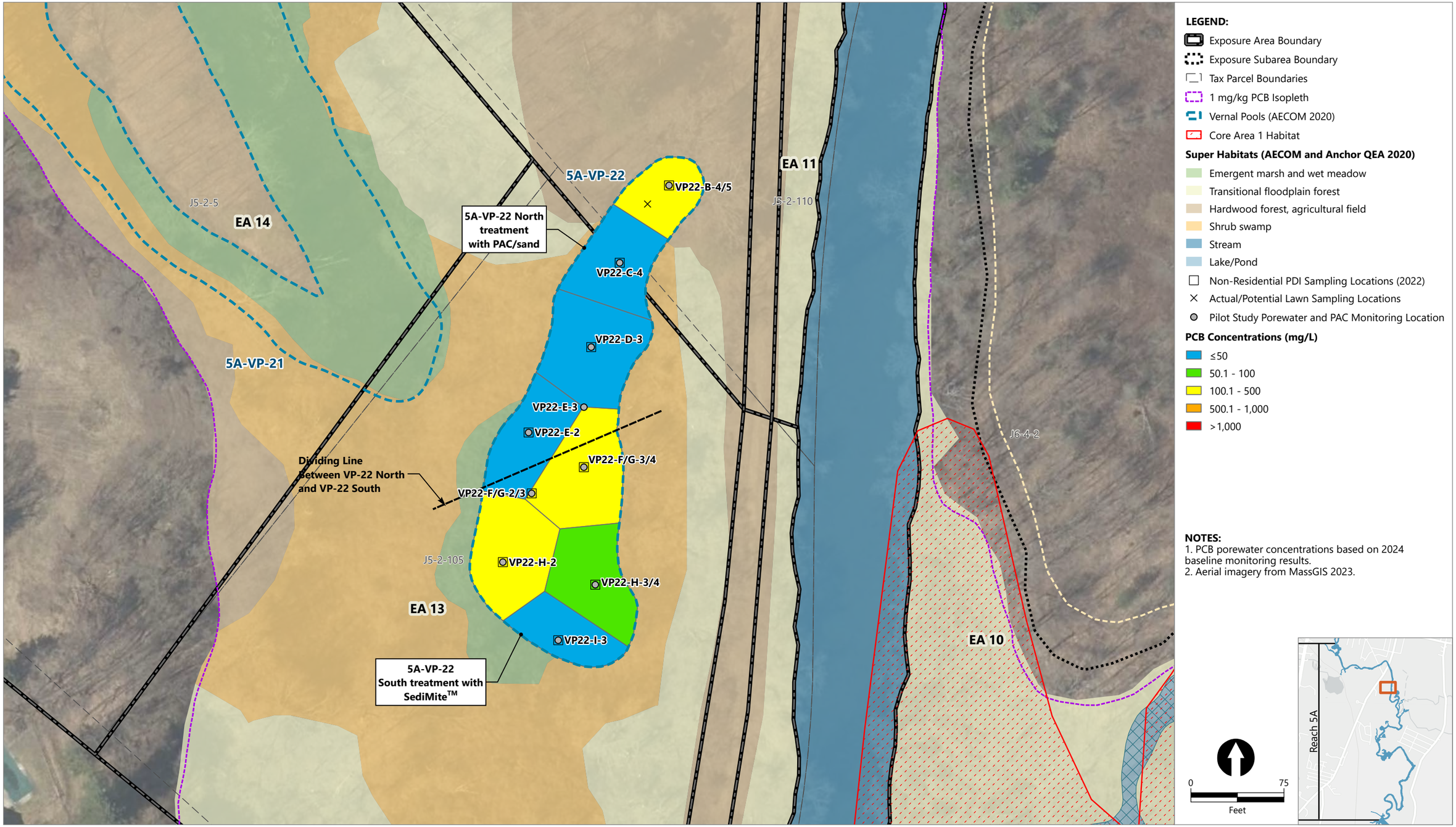
Figure 4-3
Pilot Study Porewater And Soil Monitoring Location: 5A-VP-15
Vernal Pool Pilot Study Performance Monitoring Work Plan
Housatonic River – Rest of River



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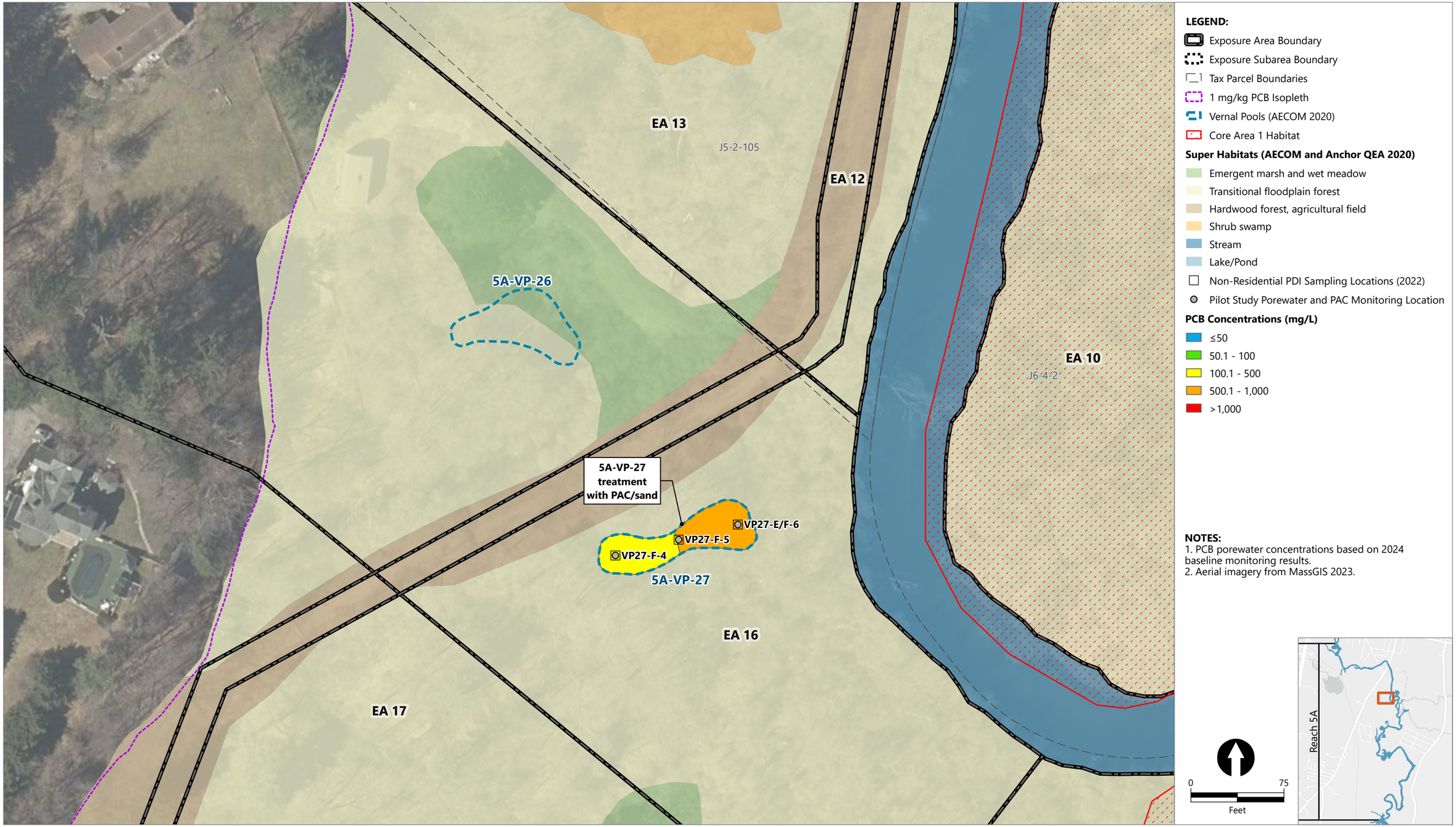
Filepath: \\gstfile01\GIS\Jobs\GE_0469\HousatonicRiver\Maps\Reports\VernalPools\PilotStudy\WorkPlan\R5APilotStudyWorkPlan.aprx\PMWP Figure 4-1to5 Porewaster Soil Monitoring

ANCHOR QEA

Figure 4-4
Pilot Study Porewater And Soil Monitoring Location: 5A-VP-22
Vernal Pool Pilot Study Performance Monitoring Work Plan
Housatonic River – Rest of River



Publish Date: 2025/06/30, 1:52 PM | User: dmiller
Filepath: \\gstfile01\gis\Jobs\GE_0469\HousatonicRiver\Maps\Reports\VernalPools\PilotStudy\WorkPlan\R5APilotStudyWorkPlan.aprx\PMWP Figure 4-1to5 Porewaster Soil Monitoring

ANCHOR QEA

Figure 4-5
Pilot Study Porewater And Soil Monitoring Location: 5A-VP-27
Vernal Pool Pilot Study Performance Monitoring Work Plan
Housatonic River – Rest of River

Attachment A
Vernal Pool Habitat Inventory Standard Operating Procedure

Vernal Pool Habitat Inventory Standard Operating Procedure

Vernal Pool Habitat Inventory Procedure

The initial steps in the baseline survey assessment of vernal pools will consist of: (1) compiling the existing information collected during previous surveys on relevant attributes of the selected vernal pools, namely, flora, topography, bottom sediment/soil composition, in-pool physical structure, surrounding land use, and relationship/proximity to other vernal pools; and (2) collecting additional information on those relevant attributes, as well as data on the general water and soil chemistry of the vernal pools, as described in the following paragraphs. The additional field survey data are described herein and will be recorded on Form VP-1 (Attachment 1).

To estimate percent cover of tree canopy, woody shrubs, and herbaceous plants (including sedges, rushes, and grasses) within each vernal pool, an acceptable vegetative survey procedure will be conducted (e.g., see Barbour et al. 1999 for acceptable methods). This may consist of randomly placed monitoring plots, line-intercept sampling, or other standard accepted method. One acceptable method is line-intercept sampling. This involves stretching a 100-foot tape across the pool from shoreline to shoreline and tallying the total length of each cover type that projects through that plane over the line (Barbour et al. 1999). Percent cover is then calculated as a function of total length of a particular cover type divided by the total length of the transect. Two to three transects will be measured across each pool and the dominant plant species within each of the various plant strata will be recorded, including observations of any invasive plant. Pools less than 0.2 acre in size will have two transects, and pools between 0.2 and 1.0 acre will have three transects. Plant species will be identified using the U.S. Department of Agriculture Natural Resources Conservation Service Plants Database (USDA Plants Database) for the region (i.e., Massachusetts) (USDA NRCS 2022) or other acceptable source (e.g., Native Plant Trust).

During the vegetation sampling, water depth (or evidence of water depths depending upon the seasonal conditions) will be measured or determined at 2- to 5-foot intervals (depending on how flat or steep the topography is) along a transect from shoreline to shoreline to map the relative topography within each pool. The start and stop location of each transect will be surveyed by GPS and points with corresponding water depths will be plotted along that line in GIS. For pools that are too deep to allow running the transects from shoreline to shoreline, data will be collected up to approximately 3-foot depths. Significant topographic or physical features within the pool (e.g., large hummocks or windthrown trees) that are not intercepted by the transect will be characterized and located by GPS.

Vernal pool soil composition will be categorized in the field using a hand auger and/or tile spade shovel and will generally be inspected to a depth of 18 to 24 inches. One profile description per pool

will be documented between the outer edge and deepest part of the pool. The information collected for each soil profile will include soil horizons, depth, texture, color, and the presence or absence of redoximorphic features (mottles and other features). Colors of the soil matrix and mottles will be identified using Munsell Soil Color Charts. All hydric soil determinations will be based on criteria established in *Field Indicators for Identifying Hydric Soils in New England* (NEIWPCC 2018) and guidance in the 2012 U.S. Army Corps of Engineers Regional Wetland Manual.

In-pool physical structure other than woody shrubs (which will be measured during the line-intercept sampling) will be quantified within each pool. Observations of coarse woody debris, large boulders, or exposed root wads will be located via GPS during the pool inspection with the approximate length, width, and/or diameter recorded in inches. Fine woody debris will be estimated as a total percent cover of the entire pool area.

The habitat and land use conditions surrounding each vernal pool will be characterized as shown on Form VP-1 (Exhibit 1). This will include characterizing the approximate percentage of different habitat cover types within both the 100-foot buffer around the vernal pool (the vernal pool envelope) and 100- to 750-foot zone (the critical terrestrial habitat) (using designations from Calhoun and Klemens 2002). The landscape setting of the pool will also be characterized, noting whether it is a discrete depression in the floodplain or part of a larger wetland and the juxtaposition with other vernal pools to assess the potential for vernal pool network factors.

In addition, data will be collected on the general water and soil chemistry of each vernal pool (excluding polychlorinated biphenyl [PCB] concentrations, which will be determined separately). The collection of the general water and soil chemistry data will involve the measurement of pH, temperature, conductivity, and dissolved oxygen in the water using a YSI field meter (or similar), and the collection and analysis of soil samples for pH and organic carbon (or organic matter) content.[1] A composite sample of the top 8 inches of soil from three locations within the pool will be mixed in a stainless-steel bowl and placed into jars for laboratory analysis of pH and organic carbon (or organic matter) content.

References

Arcadis, 2013. *Field Sampling Plan/Quality Assurance Project Plan*. Revision 5. Prepared for General Electric Company. Revised July 2013.

Barbour, M.G., J.H. Burk, W.D. Pitts, F.S. Gilliam and M.W. Schwartz, 1999. Terrestrial Plant Ecology, Third Edition. Benjamin Cummings Publishing Company. USA.

[1] For this purpose, soil samples will be collected using the procedures in General Electric Company's current *Field Sampling Plan/Quality Assurance Project Plan* (Arcadis 2013).

Calhoun, A. J. K., and M. W. Klemens, 2002. Best development practices: Conserving pool-breeding amphibians in residential and commercial developments in the northeastern United States. MCA Technical Paper No. 5, Metropolitan Conservation Alliance, Wildlife Conservation Society, Bronx, New York.

NEIWPCC (New England Interstate Water Pollution Control Commission), 2018. *Field Indicators for Identifying Hydric Soils in New England, Version 4*. Prepared by the New England Hydric Soils Technical Committee.

USACE (U.S. Army Corps of Engineers), Engineer Research and Development Center, 2012. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0). ERDC/EL TR-12-1.

USDA NRCS (U.S. Department of Agriculture Natural Resources Conservation Service), 2022. The PLANTS Database (http://plants.usda.gov, 07/11/2022). National Plant Data Team, Greensboro, North Carolina.

Exhibit 1: Form VP-1: Vernal Pool Characterization Form[2]

Pool ID _____
Observers: _____
Location of vernal pool: _____
Survey date(s): _____
Coordinates (decimal degrees)

Latitude(X): _____ Longitude (Y): _____

A. General Vernal Pool Characteristics

1. Landscape setting (check all that apply)
   - [ ] Discrete depression in floodplain
   - [ ] Pool part of a larger wetland
   - [ ] Pool part of a pool network (____ pools within 1,000 feet)
2. Vernal pool condition (describe any recent modification to the pool, including natural changes such as beaver impoundments): _____
_____ _____
3. Describe the aquatic resource type(s) in pool (e.g., forested, scrub-shrub, etc.)
_____
4. Pool canopy cover (%): _____
5. Predominant substrate (e.g., mineral soil, organic matter): _____
6. Pool measurements:
   a. Approximate pool dimensions at maximum inundation condition (include units):
   Length _____ Width: _____ Area: _____
   b. Maximum water depth at deepest point (include units): _____
7. Hydrology
   a. Estimated month pool dries, or if never: _____
   b. Inlet/outlet (none, temporary, permanent): _____
8. Water quality (clear, high turbidity, high algal content, tannic): _____

B. Plant Community: Inventory tree and vine data obtained in a 30' radius plot; shrubs in a 15' radius plot; and herbaceous plant data in a 5' radius plot.

% Cover: _____ Trees (> 20') _____ Shrubs (< 20') _____ Woody vines _____ Mosses _____ Herbaceous

Plant Lists (species that comprise 10% or more of the vegetative cover in each stratum or any amount of an invasive plant species; "*" designates a dominant plant species for the stratum):

Strata	Plant Species	Strata	Plant Species

[2] Adapted from USACE New England Division Vernal Pool Characterization Form

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Strata: T=Tree, S=Shrub, L=Liana (vine), H=Herb (Includes grasses, herbs, pterophytes [ferns], lichens, woody seedlings, and mosses)

Identify any federal or state-listed threatened, endangered, or other rare species in or adjacent to the vernal pool: _____

C. Soil/Substrate Composition

Soil Survey Unit _____ Drainage Class _____

Texture (upper part) _____ Depth _____

Representative Soil Pit Log

Soil Horizon	Depth (inches)	Color	Soil Texture	Mottling

D. In-Pool Physical Habitat Structure

Describe physical structure in the vernal pool which may contribute to vernal pool habitat functions:

[ ] Coarse woody debris _____% cover: Describe _____
[ ] Fine woody debris _____% cover: Describe _____
[ ] Shrub and herbaceous stems _____%: Describe _____
[ ] Windthrown trees and/or root wads _____%: Describe _____
[ ] Hummocks _____%: Describe _____
[ ] Other _____%: Describe _____

E. Surrounding Land Use

1. Vernal Pool Envelope (0-100 feet from pool edge)[3]

[ ] Forested _____%
[ ] Shrub _____%
[ ] Open (e.g., meadow, agriculture, golf course) _____%
[ ] Developed (includes area beyond barriers) _____%

[3] As defined by Calhoun and Klemens (2002)

2. Critical Terrestrial Habitat (100-750 ft from pool edge)[4]

[ ] Forested _____%
[ ] Shrub _____%
[ ] Open (e.g., meadow, agriculture, golf course _____ %
[ ] Developed (includes area beyond barriers) ___% _

F. General Water and Soil Chemistry Water Quality

Water:

[ ] pH _____
[ ] Temperature _____
[ ] Conductivity _____
[ ] Dissolved Oxygen_____

Soil:

[ ] pH _____
[ ] Organic Carbon Content _____

[4] As defined by Calhoun and Klemens (2002)