



NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
WATER MONITORING AND STANDARDS ELEMENT
BUREAU OF FRESHWATER AND BIOLOGICAL MONITORING
P.O. Box 420; Mail Code 35-01 TRENTON, NEW JERSEY
WORK/QUALITY ASSURANCE PROJECT PLAN
Fish Tissue Monitoring Program –
Northwest Targeted Region 2023 and Probabilistic Monitoring

Prepared by: *Brian Henning* Date: 3/30/2023
Brian Henning, Project Manager
Bureau of Freshwater and Biological Monitoring
New Jersey Department of Environmental Protection

Approved by: *Victor Poretti* Date: 4/5/23
Victor Poretti, Bureau Chief
Bureau of Freshwater and Biological Monitoring
New Jersey Department of Environmental Protection

Reviewed by: *Frank Klapinski* Date: 4/17/2023
Frank Klapinski, Environmental Scientist
Bureau of Environmental Analysis, Restoration, and Standard
New Jersey Department of Environmental Protection

Reviewed by: *Daniel Millemann* Date: 4/18/23
Daniel Millemann, Research Scientist 1
Division of Science and Research
New Jersey Department of Environmental Protection

Reviewed by: *Sandra Goodrow* Date: 6/20/2023
Sandra Goodrow, Research Scientist 1
Division of Science and Research
New Jersey Department of Environmental Protection

Approved by: *Jenna Majchrzak* Date: 7/24/2023
Jenna Majchrzak, Quality Assurance Officer
Office of Quality Assurance
New Jersey Department of Environmental Protection

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1.0 Project Name:

Fish Tissue Monitoring Program –Northwest Targeted Region 2023 and Probabilistic Monitoring

2.0 Project Request:

Division of Water Monitoring and Standards, Bureau of Freshwater and Biological Monitoring and the Division of Science and Research

3.0 Date of Request:

April 2023

4.0 Date of Project Initiation:

May 2023

5.0 Project Fiscal Information: Job Number 33340000, Activity Code V6TK

6.0 Project Managers:

Brian Henning, Research Scientist 1
Bureau of Freshwater and Biological Monitoring (BFBM)
New Jersey Department of Environmental Protection

Daniel Millemann, Research Scientist 1
Division of Science and Research (DSR)
New Jersey Department of Environmental Protection

7.0 Quality Assurance Officer:

Jenna Majchrzak, Research Scientist 2
NJDEP, Office of Quality Assurance

8.0 Special Training Needs/ Certifications

Crew leaders and assistants to the project will be trained in the operation and use of all sampling equipment including the proper safety and handling procedures for electroshocking equipment. Electrofishing is inherently dangerous and, therefore, team leaders must be trained in safe electrofishing techniques and practices to ensure safe working conditions for themselves and the field staff (AFS Professional Safety Committee 2008). All crew members are required to adhere to the BFBM Field Work Health and Safety Plan (HASP, NJDEP 2019) developed in cooperation with NJDEP Office of Occupational Health and Safety (OOHS) and any addendums to address covid-19 precautions. Crew members must also adhere to any guidance provided by OOHS during the QAPP period. The boat operator will have a valid NJ boater safety or equivalent card certification. At least 1 crew member will be Red Cross AED/CPR certified. All staff present on the electrofishing boat will be given a brief training and safety demonstration by the boat operator prior to each electrofishing event. Safe electrofishing boating conditions will be confirmed by the BFBM Project Manager when there are any questions regarding the safe handling of boats on large rivers and reservoirs. The BFBM Project Manager or designee will be responsible for coordinating the necessary training.

9.0 Project Description:

9.1 Background:

Fish and shellfish consumption advisories due to chemical contamination were announced in New Jersey in the 1980s and 1990s. Data from Division of Science and Research (DSR) studies revealed that unacceptable risks existed for eating certain amounts and species of fish and shellfish from some waters in the State. Statewide advisories were issued for consumption of selected fish species due to toxic contamination. The advisories are more restrictive for pregnant women, nursing mothers and young children. Many contaminants including polychlorinated biphenyl (PCBs) and mercury have been linked to birth defects, developmental problems, neurological problems and/or cancer. Current advisories are listed on NJDEP's Website www.FishSmartEatSmartNJ.org.

In addition to posing human health consumption concerns, many toxic contaminants can result in ecological impacts to fish and other biota. Many of the toxics of concern are persistent in the environment, accumulates in biological tissue, and biomagnifies in the food chain. Due to these magnifying characteristics, adverse impacts to non-aquatic, piscivorous (fish-eating) organisms may arise from low surface water column concentrations. To understand and track contaminant levels in fish tissue, the environment and to regularly propose and update consumption advisories fish samples must be collected and analyzed for persistent, bioaccumulative and toxic chemicals.

A routine tissue monitoring program was identified as a key gap in NJ's Long-term Monitoring and Assessment Strategy. Sampling fish tissue for advisories, and for assessing the Clean Water Act (CWA) fish consumption use, had primarily been conducted in the past by DEP's Division of Science and Research on a research project-specific basis with external research institutions. A routine monitoring network within the Department was initially established in 2014 by the Bureau of Freshwater and Biological Monitoring (BFBM), working with DSR. This routine sampling leverages some existing monitoring program resources (e.g., electroshocking boats, supplies, and fisheries expertise) to provide regular, cost-efficient monitoring and ongoing data to meet the objectives below.

9.2 Objectives

The objective of this fish tissue monitoring program is to collect data on finfish from New Jersey's freshwater bodies for contaminants of concern in fish tissue for the following purposes:

- Provide current and more comprehensive data on concentrations of toxic contaminants in fish to assess human health risks and update/recommend fish consumption advisories.
- Provide data to assess the impairment of the fish consumption designated use within the New Jersey Integrated Water Quality Assessment Report, Clean Water Act 303(d) List and 305(b) Report
- Provide data to assess the overall status and trends in levels of contaminants that contribute to use impairment and fish consumption advisories.
- Collect additional data on emerging contaminants in fish tissue identified as having implications for advisories, human health concerns, or ecological endpoints in coordination with DSR. Certified methods for analysis of contaminants of emerging concern (CECs) may not be available, but best available methods will be used to provide data to support advisory development and other research.

Data Quality Objectives:

For fish tissue analysis, total mercury will be measured for all fish collected. Polychlorinated biphenyls (PCBs; congener specific) will be measured in benthic species, i.e. common carp, catfish species or American eels at selected sites. Additional higher trophic level species often targeted for consumption may also be selected due to their position in the food web and limited existing data. Measuring bias, precision, accuracy, and sensitivity must meet the standards outlined in USEPA Method 1631, Revision E (August 2002) for total mercury, and USEPA Method 1668A (March 2010) for PCBs. PFAS will be measured in selected species at routine sites by a lab using an approved method, since there is currently no final EPA certified method for quantifying PFAS in fish tissue. Additional contaminants (e.g., selenium, polybrominated diphenyl ethers (PBDEs), Dioxins and furans, pesticides) may be measured on a site-specific basis for selected species as needed (e.g., upon request from Bureau of Environmental Restoration, Analysis, and Standards or if additional funding becomes available).

9.3 Monitoring Design/ Site Selection:

Monitoring Design

The Fish Tissue Monitoring Program employs two types of monitoring designs (Table 1). The *Targeted Regional Network* design follows a rotating basin approach; in which waterbodies are targeted and sampled within a defined water region in each year (Figure 1). New Jersey has five water regions and are rotated clockwise in the following order (Northwest, Northeast, Raritan, Atlantic, and Lower Delaware). Waterbodies are targeted for sampling based on the following criteria: prior data available for trends analysis, targeting areas of concern, targeting popular angling locations, sampling in unassessed HUC-14 watersheds (the 14-digit hydrologic unit (HUC14s) subwatershed) per the Integrated Water Quality Assessment Report, and updating consumption advisories. This component of the targeted tissue monitoring can include rivers/streams, although most waterbodies included are primarily lakes and ponds. For 2023, the Northwest Region is targeted.



Figure 1. NJDEP- BFBM/DSR targeted monitoring by rotating basin and schedule year for sampling. New Jersey has five major water regions and are rotated in the following order (Northwest, Northeast, Raritan, Atlantic, and Lower Delaware).

The second monitoring design is *Probabilistic*, meaning that sites are selected randomly, and includes only lakes/ponds. Lakes were selected for the probabilistic design because they often receive more angling pressure, have greater access both to anglers and to sampling staff, and fish movement is generally limited to within each lake. A total of 50 probabilistic lakes (greater than 5 surface acres) were generated using a Generalized Random Tessellation Stratified (GRTS; Stevens and Olsen, 2004) survey design performed using the “sp survey” package (Kincaid and Olsen, 2016) in “R” (a free software environment for statistical computing and graphics). Lakes that are private (not generally open to public fishing access), tidally influenced, quarry pits (active mining), retention ponds, segments of larger lakes, and waterbodies that do not constitute a “lake” are non-target sites and are not considered for sampling. The probabilistic lakes sampled each year do not necessarily correspond with the current rotating basin, rather they are sampled in numerical order of the randomly generated site list. This probabilistic monitoring design will provide a statistical statewide status estimate of total mercury concentrations in fish from public New Jersey lakes greater than 5 acres in size.

Site Selection:

Targeted Regional Network- A total of 18 sites were chosen for 2023 sampling within the Northwest region (Figure 2, Table 2a). These sites were selected in cooperation with the DSR. Sampling locations were selected from areas where contaminated fish tissue is of concern and past data is available to assess trends in contaminant levels that contribute to use impairment and fish consumption advisories. These sites are also targeted because they have known fishing access and angling pressure. Additionally, sites were included in HUC-14 watersheds that have no previous fish tissue data and thus are deemed “insufficient data” in the New Jersey’s Integrated Water Quality Assessment Reports. Other sites of concern may be added to the site list, in consultation with DSR, if the schedule and budget allows. Any updates to analytes and sites will be forwarded to all signatories of the QAPP.

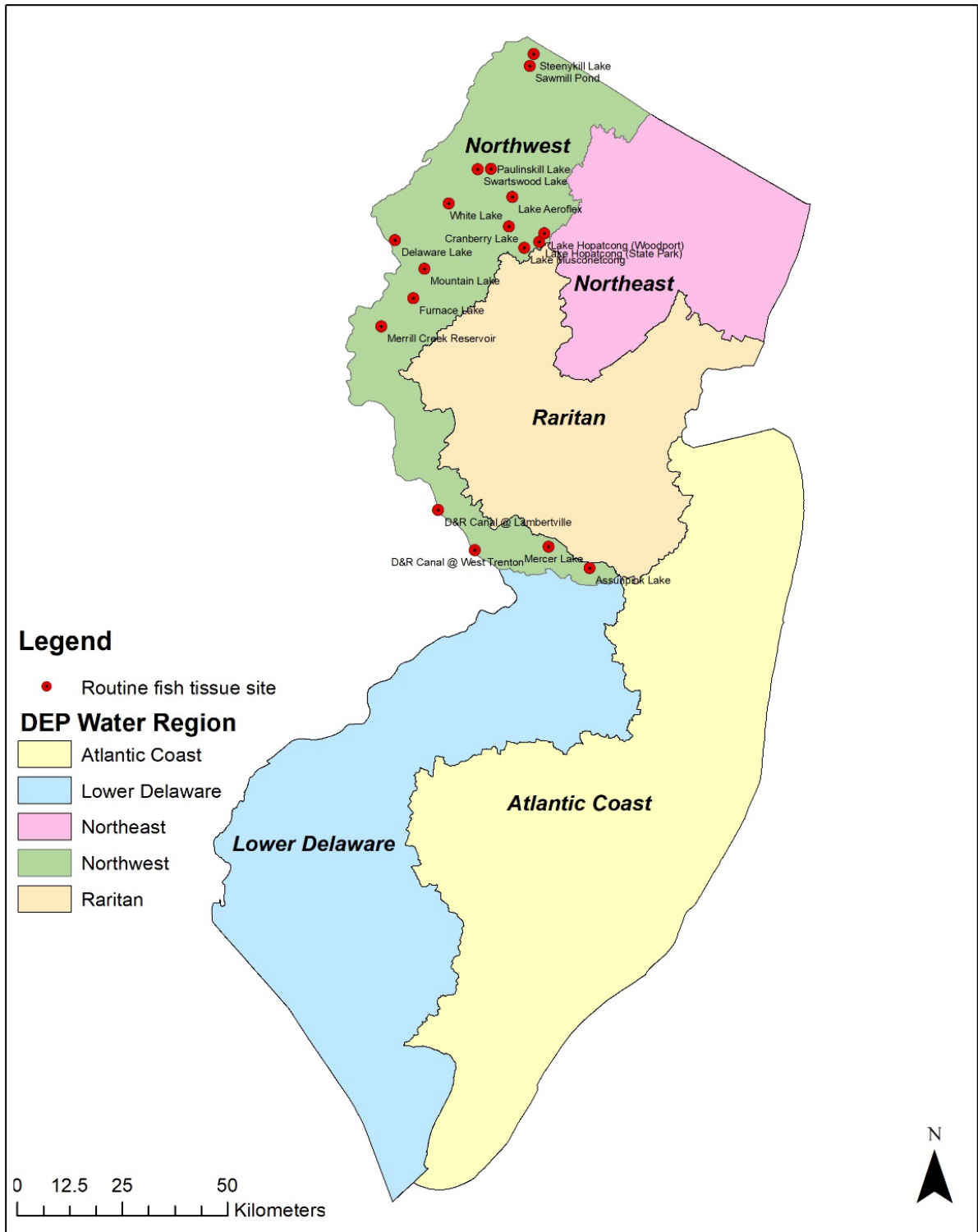


Figure 2. Routine Fish Tissue Monitoring sites in Northwest region scheduled for sampling in 2023.

Probabilistic Lake Network- Approximately 10 probabilistic lakes will be sampled for fish tissue each year until 50 lakes are completed. Probabilistic lakes that may be for sampled in 2023 are listed in Table 2c and Figure 3. The first 50 lakes (in sequential Prob ID order) which are accessible to the sampling gear and permissible to sample will be selected. Lakes that do not meet the sampling criteria will be eliminated.

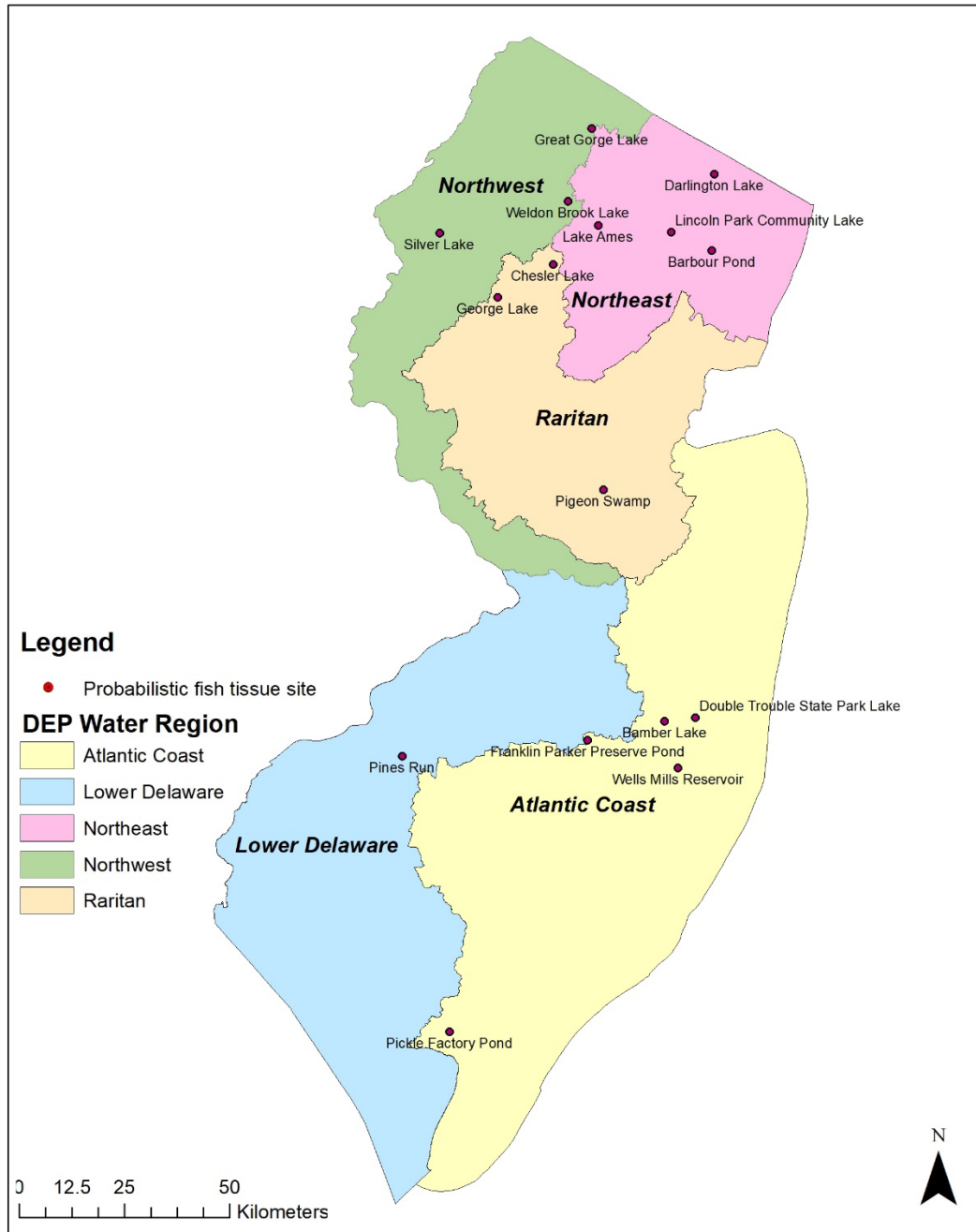


Figure 3. Probabilistic fish tissue sites.

Field Collection: Sampling locations will be established using an approved global positioning system (GPS) device (Trimble GeoExplorer 2008 or newer model) at each boat launching location. Subsequently, all sampling locations will be verified by sampling staff during each sampling event using an approved GPS device. The individual location of each fish taken for sample is not recorded via GPS.

The primary fish sampling method is through DC boat electrofishing. Electrofishing is inherently dangerous and therefore boat crew leaders must be trained in safe electrofishing techniques and practices (including operation of electroshocking boats) to ensure safe working conditions for themselves and the field staff (AFS Professional Safety Committee 2008). Exposure to low electrical current (like that used in electrofishing) may cause death due to respiratory arrest or cardiac fibrillation (AFS Professional Safety Committee 2008). Due to these dangers, the field crew leader must be trained in CPR and AED procedures. All crew members are required to wear a Coast Guard approved personal flotation device (PFD), knee high rubber boots with non-slip soles, and electrician gloves rated at 7,500 watts (netters only). All crew members are required to adhere to the BFBM Field Work Health and Safety Plan developed in cooperation with NJDEP Office of Occupational Health and Safety (OOHS). Crew members must also adhere to any guidance provided by OOHS during the QAPP period.

In addition to electrofishing, baited hoop nets, fyke nets, experimental gill nets or hook and line may be employed to ensure the collection of all specimens. After two attempts to capture the targeted species with electrofishing equipment, secondary sampling techniques should be employed at the discretion of the BFBM Project Manager. Hook and line sampling should only be conducted as a last resort. Nets will be set in the evening near the appropriate habitat and will be checked early the following morning to minimize mortality of incidental catch. Hoop and fyke nets will be set in a manner to ensure that there is sufficient surface air space for turtle bycatch to breathe (Larocque et al. 2012). Sampling gear and crew size will be determined by the BFBM Project Manager. A checklist of necessary sampling and safety equipment will be prepared prior to field work by the Crew lead.

It is highly desirable to collect live, intact fish that have not been mutilated by the collection gear and that do not have any skin lacerations or fin deterioration that would allow body fluids to leak out of the specimen or contaminants to pass into the specimen after collection. The USEPA recommends that fish captured in passive collection devices not remain in the water for more than 24 hours after the passive collection device is first deployed and that specimens that show any skin or fin deterioration or external lacerations of any kind not be used for chemical analysis. In addition, some fish collected by electroshocking methods may have ruptured organs due to the electroshocking procedure. Fish that are found floating dead at a site will not be used for sample analysis for human risk assessments.

Fish Processing: Fish processing methods vary depending on the sampling network (Table 1) and analytes to be measured for each fish.

Fish tissue samples are prepared and packaged in two ways following sample collection: 1) tissue plug, or 2) whole fish. Some fish may be analyzed for multiple analytes such as total mercury and PCBs, thus requiring the fish to be plugged first for total mercury analysis and then wrapped as a whole fish for PCB analysis.

Previously, fish tissue mercury analysis required the specimen to be sacrificed. The more recent use of muscle plugs has eliminated the need to sacrifice the fish for mercury analysis and allows the fish to be released back into the waterbody alive. The USEPA has recently employed the use of tissue plugs for their National Rivers and Streams Assessment (NRSA) as have many state monitoring programs (e.g. New York, Kentucky, Nebraska). Studies have shown that mercury results from fish tissue plug samples harvested with biopsy tools were comparable in accuracy to results from samples collected with traditional whole body sampling methods (Baker et al., 2004). Fish tissue plugs also require less storage space in a freezer, are more cost effective to package and ship, and eliminate the fish preparation charge for whole fish by the laboratory. Whole fish samples are necessary for PCB analyses because these contaminants are known to accumulate in fatty tissue and the location and amount of tissue from muscle plugs is not sufficient for these analyses. Whole fish samples are necessary for PFAS analysis due to the volume of sample needed.

Tissue preparation of fish will follow common preparation methods for consumption. The specimens will be filleted by the contracted laboratory using clean methods for mercury as outlined in the USEPA's "*Guidance for Assessing Chemical Contaminant data for Use in Fish Advisories Vol 1 Fish Sampling and Analysis*" (USEPA, 2000).

Targeted Regional Network- The species collected for Targeted Regional Network sampling will primarily include largemouth bass or chain pickerel (trophic level 4), sunfish species (trophic level 3), and common carp, catfish/bullheads or American eels (trophic level 3). These species are common in the lakes and rivers of New Jersey and there are existing datasets available for mercury and PCBs in fish tissue. Common carp, catfish/bullheads or American eels (trophic level 3) were selected for PCB analysis because they are known to accumulate PCBs in fatty tissue. In addition, other species that are more highly desired for human consumption (i.e., walleye, striped bass) and/or are top level piscivores (i.e. lake trout, northern pike, northern snakehead), if present in a specific waterbody may be targeted in addition to the aforementioned species. Target fish species for each waterbody and selected analytes for each species are listed in Table 2b. If the target species are not present or are unable to be captured with available gear at a given waterbody, an alternate species will be selected from the alternate fish list (Table 3) at the discretion of the BFBM Project Manager.

Captured specimens will be held in a livewell during field collection until sampling is complete. The appropriate number of target specimens of a similar size will be taken for analysis. All fish of the same species collected should be within 75% the total length of the largest individual of that species where possible. The Targeted Regional Network fish are sacrificed, placed in large plastic bags, and placed in a cooler on wet ice for transport back to the BFBM laboratory for further processing. All persons handling the fish during fish processing shall wear new nitrile gloves and polypropylene/polyethylene bags will be used to cover the measuring board and electronic scale for each fish sample. All sample specimens will be weighed(g) using a Ohaus Defender 5000 scale (± 2.0 g accuracy) and measured for total length (mm). Fish that will be analyzed for total mercury will have a small portion of scales removed with a sterile scalpel from the left dorsal musculature. An 8mm biopsy punch will be inserted into the muscle to remove 2 plugs per fish, weighing approximately 0.5g – 0.7g of tissue per plug. The two tissue plugs from each fish will be placed into a scintillation vial and labeled with an alphanumeric identifier. The sample alphanumeric identifier will combine the site ID, fish code, species sample number, and the last 2 digits of the sampling year (Table 4). The remaining body of the fish will then be rolled in muffled foil (aluminum foil heated to 450 °C for 6 hours to remove impurities), affixed with a wire tie tag (with site, date, time, length, weight, and alphanumeric identifier) then placed inside a plastic bag with a label on the outside. The remaining whole fish is stored in a freezer for PCB and PFAS analysis or stored as an archived sample. All catfish species will have the dorsal and pectoral spines clipped with a pair of wire cutters prior to placing them in plastic bags to prevent puncturing of the plastic bag.

Probabilistic Lake Network- At all probabilistic sites, 5 individual largemouth bass or 5 individual chain pickerel of similar size will be collected for total mercury analysis. If the target species are not present or are unable to be captured with the available gear at a given waterbody, an alternate species will be selected from the alternate fish list (Table 3) at the discretion of the BFBM Project Manager. The 5 fish collected should be within 75% the total length of the largest individual in the sample when possible. All persons handling the fish during fish processing shall wear new nitrile gloves and polypropylene/polyethylene bags will be used to cover the measuring board for each fish sample. All sample specimens will be measured for total length (mm) and weighed using a digital hanging scale (Brecknell Electro Samson : $\pm 0.5\%$ kg accuracy) or spring scale (Pesola, accuracy: $\pm 0.3\%$ g). All 5 fish will have tissue plugs removed in the field using non-lethal fish tissue plug collection methods as described by USEPA, 2017. Each specimen will have a small portion of scales removed with a sterile scalpel from the left dorsal musculature. One 8mm biopsy punch will be inserted into the muscle to remove 1 plug per fish, weighing approximately 0.5g – 0.7g of tissue per plug. Each plug will be placed into a clean glass scintillation vial with outside label identifying the probabilistic site ID and fish species code. Probabilistic site ID and fish codes are listed in Table 4. A composite sample consisting of 1 plug per fish, from 5 individual fish of the same species (largemouth bass or chain pickerel) will create a composite sample for analysis. The vial containing the 5 fish tissue plugs will be kept in a cooler on dry ice and

transported back to the BFBM laboratory. All fish collected at probabilistic sites will be released back into the lake alive after a tissue plug is removed. The tissue plugs will be kept in a frozen state ($< -20^{\circ}\text{C}$) in a chest freezer at the BFBM laboratory until delivered to the New Jersey Department of Health for analysis using method CHE.0009 within 1 year of the sampling date. All fish tissue plug samples will be delivered to the New Jersey Department of Health Laboratory (NJDOH) on ice.

Table 1. Comparison of fish tissue monitoring networks.

<u>Criteria</u>	<u>Targeted Regional</u>	<u>Probabilistic</u>
Site selection	Targeted	Random (computer generated)
Waterbody	Rivers and Lakes	Lakes
Species targeted	1) Largemouth bass or chain pickerel 2) Sunfish species 3) common carp or American eel or catfish/bullhead species	Largemouth bass or chain pickerel
Sample Quantity	3 individuals from each of the 3 groups	5 individuals
Analytes	total mercury (Species groups 1, 2, and 3), PCBs (Species group 3 only), PFAS (species groups TBD) additional parameters of interest	total mercury (5 fish composite for each species)
Sample matrix	Whole fish fillet (PCBs, PFAS) and plug (Hg, Se)	Plug (Hg)
Fish sacrificed	Yes	No

Table 2a: 2023 Northwest Region Fixed Network Sites

Station	Waterbody/Location	Latitude-dd	Longitude-dd	County
FTM040	Assunpink Lake	40.21865	-74.51690	Monmouth
FTM041	Cranberry Lake	40.95084	-74.74521	Sussex
FTM042	Delaware Lake	40.92000	-75.06652	Warren
FTM043	Furnace Lake	40.79617	-75.01407	Warren
FTM044	Lake Aeroflex	41.01387	-74.73531	Sussex
FTM045	Lake Hopatcong (State Park)	40.91814	-74.65885	Sussex
FTM046	Lake Hopatcong (Woodport)	40.93561	-74.64473	Sussex
FTM047	Lake Musconetcong	40.90495	-74.70144	Sussex
FTM048	Mercer Lake	40.26424	-74.63092	Mercer
FTM049	Merrill Creek Reservoir	40.73497	-75.10380	Warren
FTM050	Mountain Lake	40.85906	-74.98336	Warren
FTM051	Paulinskill Lake	41.07360	-74.79580	Sussex
FTM052	Sawmill Pond	41.29461	-74.68726	Sussex
FTM053	Steenykill Lake	41.32003	-74.67617	Sussex
FTM054	Swartswood Lake	41.07305	-74.83375	Sussex
FTM055	White Lake	40.99944	-74.91491	Warren
FTM152	D&R Canal @ Lambertville	40.34215	-74.94059	Hunterdon
FTM153	D&R Canal @ West Trenton	40.25697	-74.83801	Mercer

***Coordinates are approximate site locations; actual boat ramp location will be GPSed at the time of sampling.**

Table 2b: 2023 Routine Network Fish Species and Analyte selection.

		Largemouth bass	Chain pickerel	Lake trout	Walleye	Sunfish	Bullhead	Carp	Am. Eel
Site ID	Waterbody								
FTM040	Assunpink Lake	Hg				Hg	Hg,PCBs		
FTM041	Cranberry Lake	Hg				Hg	Hg,PCBs		
FTM042	Delaware Lake	Hg				Hg			Hg,PCBs
FTM043	Furnace Lake	Hg				Hg	Hg,PCBs		
FTM044	Lake Aeroflex	Hg				Hg	Hg,PCBs		
FTM045	Lake Hopatcong (State Park)	Hg				Hg	Hg,PCBs		
FTM046	Lake Hopatcong (Woodport)	Hg			Hg, PFAS	Hg	Hg,PCBs		
FTM047	Lake Musconetcong	Hg				Hg	Hg,PCBs		
FTM048	Mercer Lake	Hg				Hg			
FTM049	Merrill Creek Reservoir	Hg		Hg,PCBs, PFAS		Hg			
FTM050	Mountain Lake	Hg				Hg	Hg,PCBs		
FTM051	Paulinskill Lake	Hg				Hg		Hg, PCBs	
FTM052	Sawmill Pond	Hg				Hg			Hg, PCBs
FTM053	Steenykill Lake		Hg			Hg			Hg, PCBs
FTM054	Swartswood Lake	Hg			Hg, PFAS	Hg			
FTM055	White Lake	Hg				Hg			Hg, PCBs
FTM152	D&R Canal @ Lambertville	Hg				Hg	Hg, PCBs	Hg, PCBs	
FTM153	D&R Canal @ West Trenton	Hg				Hg	Hg, PCBs	Hg, PCBs	

Analytes: Hg= mercury, PCBs= Polychlorinated biphenyls, PFAS= per-and polyfluoroalkyl substances

Table 2c: 2023 Probabilistic Lake Network Sites

Site ID	Probid	Waterbody	Latitude_dd	Longitude_dd	COUNTY
FTM113	FWLM2015-318	Darlington Lake	41.06343707	-74.17321271	BERGEN
FTM116	FWLM2015-412	Wells Mills Reservoir	39.79238302	-74.28049768	OCEAN
FTM119	FWLM2015-426	Pigeon Swamp	40.38813727	-74.48764784	MIDDLESEX
FTM120	FWLM2015-429	Lincoln Park Community Lake	40.93884932	-74.29602633	MORRIS
FTM122	FWLM2015-469	Weldon Brook Lake	41.00570475	-74.58705638	MORRIS
FTM123	FWLM2015-262	Barbour Pond	40.89970856	-74.18230246	PASSAIC
FTM126	FWLM2015-310	Great Gorge Lake	41.16135905	-74.52068485	SUSSEX
FTM128	FWLM2015-368	Franklin Parker Preserve Pond	39.85185514	-74.53176485	BURLINGTON
FTM129	FWLM2015-381	George Lake	40.80006092	-74.78521415	MORRIS
FTM130	FWLM2015-411	Pines Run	39.81629314	-75.04571044	CAMDEN
FTM131	FWLM2015-417	Silver Lake	40.93605208	-74.9491898	WARREN
FTM132	FWLM2015-441	Chesler Lake	40.87059612	-74.6284824	MORRIS
FTM133	FWLM2015-448	Double Trouble State Park Lake	39.90023077	-74.23162228	OCEAN
FTM134	FWLM2015-476	Bamber Lake	39.89301351	-74.31738535	OCEAN
FTM138	FWLM2015-494	Lake Ames	40.95342406	-74.50237153	MORRIS
FTM139	FWLM2015-496	Pickle Factory Pond	39.22767245	-74.91083326	CAPE MAY

***Coordinates are approximate site locations; actual boat ramp location will be GPSed the day of sampling. Probabilistic Site IDs will be given a new FTM# site ID in the order they are sampled, on the day of sampling.**

Table 3: Alternate Fish List

Common Name	Scientific Name
Rock bass	<i>Ambloplites rupestris</i>
Northern Pike	<i>Esox lucius</i>
White Perch	<i>Morone americana</i>
Striped Bass	<i>Morone saxatilis</i>
Striped x White Bass hybrid	<i>Morone saxatilis x chrysops</i>
Yellow Perch	<i>Perca flavescens</i>
Black Crappie	<i>Pomoxis nigromaculatus</i>
White Crappie	<i>Pomoxis annularis</i>
Walleye	<i>Sander vitreus</i>
White Sucker	<i>Catostomus commersonii</i>
Lake trout	<i>Salvelinus namaycush</i>

Table 4. Fish codes of collected fishes for fish tissue monitoring.

Common Name	Scientific Name	Fish Code
American eel	<i>Anguilla rostrata</i>	AE
Black Crappie	<i>Pomoxis nigromaculatus</i>	BC
Bluegill	<i>Lepomis macrochirus</i>	BG
Brown bullhead	<i>Ameiurus nebulosus</i>	BBH
Chain pickerel	<i>Esox niger</i>	CP
Channel catfish	<i>Ictalurus punctatus</i>	CCF
Common carp	<i>Cyprinus carpio</i>	CC
Flathead catfish	<i>Pylodictis olivaris</i>	FHCF
Lake trout	<i>Salvelinus namaycush</i>	LT
Landlocked Atlantic salmon	<i>Salmo salar</i>	LAS
Largemouth bass	<i>Micropterus salmoides</i>	LMB
Muskellunge	<i>Esox masquinongy</i>	MKY
Northern Pike	<i>Esox lucius</i>	NP
Northern snakehead	<i>Channa argus</i>	NSH
Pumpkinseed	<i>Lepomis gibbosus</i>	PS
Redbreast	<i>Lepomis auritus</i>	RBS
Rock bass	<i>Ambloplites rupestris</i>	RB
Smallmouth bass	<i>Micropterus dolomieu</i>	SMB
Striped bass	<i>Morone saxatilis</i>	SB
Striped bass x White bass hybrid	<i>Morone saxatilis x chrysops</i>	HSB
Walleye	<i>Sander vitreus</i>	WYE
White catfish	<i>Ameiurus catus</i>	WCF
White Crappie	<i>Pomoxis annularis</i>	WC
White Perch	<i>Morone americana</i>	WP
White Sucker	<i>Catostomus commersoni</i>	WS
Yellow bullhead	<i>Ameiurus natalis</i>	YBH
Yellow perch	<i>Perca flavescens</i>	YP

For targeted regional network samples the alphanumeric identifier will combine the site ID, fish code, species sample number, and last 2 digits of the sampling year.

For example, if 3 largemouth bass were sampled from a targeted regional network site, such as Assunpink Lake in 2023 they would have the following sample alphanumeric identifiers: FTM040LMB0123, FTM040LMB0223, FTM040LMB0323.

For probabilistic samples, the Probabilistic site ID will be given an FTM number for each site. The alphanumeric identifier for each individual fish will combine the site ID, fish code, and species sample number. For example, if 5 chain pickerel were sampled from a probabilistic lake, such as FTM121, the following sample alphanumeric identifiers would be used on the datasheet: FTM121CP0123, FTM121CP0223, FTM121CP0323, FTM121CP0423, FTM121CP0523. The vial containing the 5 fish plug composite sample will be labeled with the site ID, fish code, and four-digit sampling year (FTM121CP2023).

Equipment Decontamination: To prevent the potential spread of nuisance or invasive organisms and macrophytes from waterbody to waterbody, all equipment (boats, nets, boots, etc.) is decontaminated between site visits by scrubbing/cleaning with a dilute solution of commercial disinfectant, followed by a rinse with fresh water and allowed to thoroughly dry.

9.4 Laboratory Analysis

A NJDEP OQA certified (when available) laboratory will process whole fish and analyze fish fillets for analytes (PCBs, PFAS, Pesticides, Dioxins and or Furans) while the New Jersey Department of Health (NJDOH) laboratory will analyze fish tissue plug samples for total mercury. In any instance when a NJDEP OQA certified laboratory is not used for testing or analysis, the analytical results cannot be used for regulatory purposes. The methods to be used for analysis during this project are specified in Appendix A.

A NJDEP OQA certified laboratory will conduct fish tissue analyses for PCBs on common carp, catfish, eels and other selected species as composites. Other species that are more highly desired for human consumption (i.e., walleye, striped bass) and/or are top level piscivores (i.e. lake trout, northern pike), if present may also be analyzed for PCBs as individual fish or composites. The homogenizing of all fish collected will be conducted by a NJDEP OQA certified laboratory for USEPA method 1668A.

For probabilistic samples, the total mercury analysis will consist of a composite sample of 1 plug per fish, from 5 individual fish of the same species.

Samples (plugs and whole fish) shall remain frozen (-20 C) until shipped from BFBM's laboratory. The maximum holding time for plugs is 1 year and the maximum holding time for whole fish is 1 year (Table 5). All transfers of samples will be properly documented throughout transport and analysis (internal lab chain-of-custody, Appendix B). All laboratory equipment will be properly calibrated as per each method completed. Careful cleaning of all laboratory equipment and instruments using the appropriate soaps, solvents, acids, and double deionized water will be employed throughout this program.

9.5 Shipment of Samples

All fish samples will be placed into coolers with each individual sample documented on the designated lab chain of custody form sealed inside a plastic bag (see Appendix B). All whole-body fish samples will be placed into coolers lined with blue ice and supplemental dry ice may be used at the shipper's discretion based on the temperature and time of year of shipment. All fish tissue plug samples will be delivered by BFBM staff to the NJDOH laboratory. For all samples requiring shipment, sample coolers are sealed with packaging tape, and a custody seal is placed over the lid. When shipping with dry ice a small hole must be drilled into the lid of the cooler for ventilation. All whole fish samples shipped to the NJDEP OQA certified laboratory will be via FedEx overnight to ensure they arrive at the laboratory by the next day.

10.0 Schedule of Tasks and Products

Project Requested: April 2023

Station Selection: February 2023

Work/Quality Assurance Plan: March - May 2023

Sampling Activities: June – November 2023

Laboratory Activities (sample submission and analysis): June 2023 – April 2024

Data Reports: data tables (hardcopy and electronic) as laboratory results become available.

11.0 Resource Needs

BFBM will need 1 additional hourly staff to complete this project.

12.0 Quality Assurance

12.1 Laboratory Analysis: The total mercury will be analyzed by the New Jersey Department of Health (NJDOH) Laboratory (#11036) using method CHE.0009. The NJDOH is certified by the U.S. Food and Drug Administration's (FDA) for method CHE.0009. However, the NJDOH is not NJDEP certified to test mercury in fish tissue using CHE.0009 and therefore the results cannot be used for regulatory purposes. The whole fish analysis will be performed by a NJDEP OQA certified laboratory (if available) for PCBs using USEPA method 1668A and by SGS AXYS using MLA-110 R.02 V.12 for PFAS. The identity of the NJDEP OQA certified environmental laboratory that will be performing the EPA 1668A analysis has not yet been determined at the time of the writing of this QAPP. Once the laboratory has been identified, a QAPP addendum will be made to provide information about the laboratory, including applicable MDL data for the parameters to be tested. In addition, the MDLs for PFAS analysis at SGS AXYS will be noted in the QAPP addendum. The reporting levels, listed below, are required for this project.

Table 5. Fish tissue storage and analysis information by analyte.

Parameter	Method	Detection Level	Holding Time	Preservative	Plug/Fillet
Total Mercury	CHE.0009	5.74 ug/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.	Plug
PCBs	USEPA 1668A	see Appendix A – Table A-2	1 year	Ice to 4°C in field. Freeze within 24 hours.	Fillet
PFAS	MLA-110 R.02 V.12	see Appendix A – Table A-2	1 year	Ice to 4°C in field. Freeze within 24 hours.	Fillet

* In the event that BFBM and DSR agree that an additional analyte be included (e.g. PBDEs, furans), storage and analysis information will be as specified in the Lab Worksheet (Appendix A, Table A-2) of this QAPP.

12.2 Sample Containers: Sample containers for fish tissue plugs shall be dedicated, single use, glass scintillation vials. Sample containers for whole fish are plastic Ziploc bags.

12.3 Sample Retention: All samples and archived fillets must be retained by the laboratory until such time that the BFBM approves the reported results.

13.0 Data Quality Requirements

Analytical samples will be done by the methods specified in this QAPP. Quality control procedures (including required calibrations, equipment cleaning, and other quality control procedures required by regulation or by the method shall be defined in the respective laboratory's Quality Manual (QM) or Standard Operating Procedures (SOPs).

14.0 Data Completeness

At most targeted sites, 9 fish (3 from each trophic level group) will be collected for analysis. A total of 5 fish plugs will be composited for probabilistic sites. Plug and whole fish samples will consist of fish of similar size; the smallest fish will be no less than 75% of the size of the largest fish in the plug or composite sample. Adult fish of a size targeted by anglers will be collected for human health criteria. Fish samples will be collected during peak water temperatures and high productivity (i.e., May through November). Analysis may be performed on all samples collected, regardless of whether the specified number of fish or fish plugs are able to be collected from a specific site.

15.0 Sample Custody Procedures

Chain of custody will be required for all samples as per N.J.A.C. 7:18-9.3(b). Laboratories performing the analysis will provide chain of custody forms – examples are given in Appendix B.

16.0 Data Validation

The DSR Project Manager is responsible for all data validation. If apparent anomalous data are suspected, the Project Managers and/or the Supervisor will review the sampling procedures with the field sampler to make sure the proper collection and preservation procedures were followed. If the data is still suspect, the laboratory will be contacted. An internal review of their laboratory procedures and/or calculations used in the analysis of the suspect sample, with special emphasis on transcription of data to assure that no transposition of figures occurred will be conducted. The laboratory will be asked to check on equipment calibration. They may be further requested to reanalyze the retained portion of the sample. If no problems are found in the analytical laboratory procedures, the data may then be compared to any historical data that might have been collected at the same site prior to the most recent sampling event to see if similar anomalies might have been found previously. The suspect data may also be compared to literature values or standard analytical treatises to verify whether the results are within the limits of accuracy of the test method.

If no obvious problems are found after these reviews, the complete data set will be reported with the suspect data identified as such. The BFBM will then conduct its own review of the data, as it relates to the objectives(s) and data accuracy required in this project.

17.0 Performance System Audits

All NJ certified laboratories used are subject to audits and to the requirements of the OQA Laboratory Certification Program as well as internal performance evaluations. The OQA will be notified of field monitoring schedules for possible audits to ensure compliance with the plans established in this QAPP.

18.0 Data Reporting

18.1 Preliminary Reporting of Data

Preliminary analytical data will be reported to DSR and BFBM, from the laboratory employed for this project, in the electronic format agreed to with the laboratory, within the turnaround time from receipt of sample agreed to in the contract. Samples which yield results considered anomalous by the DSR Project Manager will be validated as specified in section 16.0, Data Validation, before the holding time of the retained sample is expired. If the results remain suspect after an internal review of the laboratory procedures, calculations, and/or on transcription of data has been conducted, then the sample shall be reanalyzed by the laboratory using the retained portion of the sample. This reanalysis shall be performed within the parameter holding time.

18.2 Final Reporting of Data

Final analytical data will be reported to DSR and BFBM, from the laboratory employed for this project, in the form of an electronic data delivery. All data shall be reported in a complete and concise fashion and shall meet the reporting requirements of N.J.A.C. 7:18. Routine quality control results must be retained on file for review by the BFBM and the OQA.

19.0 Data Storage and Distribution

Sampling results will be stored locally in a Microsoft Access database. Data will be entered into EPA's Water Quality Data Exchange (WQX) by BFBM within 6 months from receiving all the results and will be accessible through the USEPA, USGS and National Water Monitoring Council's Water Quality Portal, as well as the BFBM website by June the following year data is verified. All raw data records shall be maintained for a period of no less than five years.

20.0 Assessment, Oversight, and Response

The BFBM Project Manager will be responsible for the oversight of all activities relating to sample collection, while the DSR Project Manager will be responsible for the oversight of contracting and data review. The BFBM Project Manager will assess field collection functions and make corrections when necessary to maintain the data accuracy as defined in this plan.

21.0 Corrective Action

If any changes or modifications are made to this plan regarding data collection, as it relates to the objectives(s) and data accuracy required in this project, all original signees of the QAPP will be notified. If a laboratory cannot be secured for analysis, or the contract award is delayed and frozen samples will expire per method requirements, all signees of the QAPP will be notified.

Literature cited

- Baker, R. F., P. J. Blanchfield, M. J. Paterson, R. J. Flett, and L. Wesson. 2004. Evaluation of nonlethal methods for the analysis of mercury in fish tissue. *Transactions of the American Fisheries Society* 133:568–576.
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- Kincaid, T. M. and Olsen, A. R. (2016). *spsurvey: Spatial Survey Design and Analysis*. R package version 3.3.
- Stevens, D. L., Jr. and A. R. Olsen (2004). "Spatially-balanced sampling of natural resources." *Journal of American Statistical Association* 99(465): 262-278.
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APPENDIX A:
Laboratory Analysis

Table A-1. Table of analytes for laboratory analysis

Analysis (lab name)	EPA Characteristic Name	Compound Class	Method Speciation Name	Result Sample Fraction	Result Measure Unit	Result Value Type	Sample Collection Type	Sample Collection Equipment
NJ Dept of Health (#11036)	Mercury	Metal	CHE.0009	Total	ng/g	Actual	plug	Miscellaneous (Other)
LAB-TBD	2',3,3',4,5-PeCB(76842-07-4)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2',3,4,4',5-PeCB(65510-44-3)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2',3,4,5,5'-PeCB(70424-70-3)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2',3,4,5,6'-PeCB(74472-39-2)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2',3,4,5-TeCB(70362-48-0)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2',3,4-TrCB(38444-86-9)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2',3,5-TrCB(37680-68-5)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3',4,5-PeCB(41464-51-1)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3',4,6-Pentachlorobiphenyl(60233-25-2)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',4',5,6-HpCB(52663-70-4)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl(2051-24-3)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl(40186-72-9)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',4,4',5,5'-OoCB(35694-08-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',4,4',5,6'-OoCB(42740-50-1)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',4,4',5,6,6'-NoCB(52663-79-3)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',4,4',5,6-Octachlorobiphenyl(52663-78-2)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',4,4',5-Heptachlorobiphenyl(35065-30-6)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)

Analysis (lab name)	EPA Characteristic Name	Compound Class	Method Speciation Name	Result Sample Fraction	Result Measure Unit	Result Value Type	Sample Collection Type	Sample Collection Equipment
LAB-TBD	2,2',3,3',4,4',6,6'-OxCB(33091-17-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',4,4',6-Heptachlorobiphenyl(52663-71-5)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',4,4'-Hexachlorobiphenyl(38380-07-3)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',4,5',6,6'-Octachlorobiphenyl(40186-71-8)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',4,5',6-HpCB(40186-70-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',4,5'-HxCB(52663-66-8)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',4,5,5',6'-OxCB(52663-75-9)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',4,5,5',6'-NoCB(52663-77-1)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',4,5,5',6-OxCB(68194-17-2)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',4,5,5'-HpCB(52663-74-8)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',4,5,6'-HpCB(38411-25-5)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',4,5,6'-OxCB(52663-73-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',4,5,6-HpCB(68194-16-1)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',4,5-HxCB(55215-18-4)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',4,6'-HxCB(38380-05-1)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',4,6'-HpCB(52663-65-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',4,6-HxCB(61798-70-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',4-PeCB(52663-62-4)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)

Analysis (lab name)	EPA Characteristic Name	Compound Class	Method Speciation Name	Result Sample Fraction	Result Measure Unit	Result Value Type	Sample Collection Type	Sample Collection Equipment
LAB-TBD	2,2',3,3',5,5',6,6'-OocCB(2136-99-4)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',5,5',6-HpCB(52663-67-9)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',5,5'-HxCB(35694-04-3)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',5,6'-HxCB(52744-13-5)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',5,6,6'-HpCB(52663-64-6)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',5,6-HxCB(52704-70-8)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',5-PeCB(60145-20-2)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',6'-HxCB(38411-22-2)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3',6-PeCB(52663-60-2)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,3'-TeCB(38444-93-8)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4',5',6'-HxCB(38380-04-0)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4',5,5',6-Heptachlorobiphenyl(52663-68-0)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4',5,5'-HxCB(51908-16-8)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4',5,6'-HxCB(74472-41-6)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4',5,6,6'-HpCB(74487-85-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4',5,6-HxCB(68194-13-8)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4',5-PeCB(68194-07-0)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4',6,6'-HxCB(68194-08-1)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)

Analysis (lab name)	EPA Characteristic Name	Compound Class	Method Speciation Name	Result Sample Fraction	Result Measure Unit	Result Value Type	Sample Collection Type	Sample Collection Equipment
LAB-TBD	2,2',3,4',6-PeCB(68194-05-8)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4'-TeCB(36559-22-5)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4,4',5',6-HpCB(52663-69-1)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4,4',5'-Hexachlorobiphenyl(35065-28-2)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4,4',5,5',6-OcCB(52663-76-0)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4,4',5,5'-HpCB(35065-29-3)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4,4',5,6'-HpCB(60145-23-5)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4,4',5,6'-OcCB(74472-52-9)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4,4',5,6-HpCB(74472-47-2)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4,4',5-HxCB(35694-06-5)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4,4',6'-HxCB(59291-64-4)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4,4',6,6'-HpCB(74472-48-3)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4,4',6-HxCB(56030-56-9)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4,4'-PeCB(65510-45-4)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4,5',6-HxCB(68194-14-9)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4,5'-PeCB(38380-02-8)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4,5,5',6-HpCB(52712-05-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4,5,5'-HxCB(52712-04-6)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)

Analysis (lab name)	EPA Characteristic Name	Compound Class	Method Speciation Name	Result Sample Fraction	Result Measure Unit	Result Value Type	Sample Collection Type	Sample Collection Equipment
LAB-TBD	2,2',3,4,5,6'-HxCB(68194-15-0)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4,5,6,6'-HpCB(74472-49-4)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4,5,6-HxCB(41411-61-4)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4,5-PeCB(55312-69-1)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4,6'-PeCB(73575-57-2)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4,6,6'-HxCB(74472-40-5)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4,6-PeCB(55215-17-3)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,4-TeCB(52663-59-9)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,5',6-PeCB(38379-99-6)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,5'-Tetrachlorobiphenyl(41464-39-5)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,5,5',6-HxCB(52663-63-5)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,5,5'-PeCB(52663-61-3)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,5,6'-PeCB(73575-55-0)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,5,6,6'-HxCB(68194-09-2)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,5,6-PeCB(73575-56-1)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,5-TeCB(70362-46-8)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,6'-TeCB(41464-47-5)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3,6,6'-PeCB(73575-54-9)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)

Analysis (lab name)	EPA Characteristic Name	Compound Class	Method Speciation Name	Result Sample Fraction	Result Measure Unit	Result Value Type	Sample Collection Type	Sample Collection Equipment
LAB-TBD	2,2',3,6-TeCB(70362-45-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',3-TrCB(38444-78-9)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',4,4',5',6-Hexachlorobiphenyl(60145-22-4)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',4,4',5,5'-Hexachlorobiphenyl(35065-27-1)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',4,4',5-PeCB(38380-01-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',4,4',6,6'-HxCB(33979-03-2)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',4,4',6-PeCB(39485-83-1)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',4,4'-Tetrachlorobiphenyl(2437-79-8)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',4,5'-TeCB(41464-40-8)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',4,5,'6-PeCB(60145-21-3)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',4,5,5'-Pentachlorobiphenyl(37680-73-2)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',4,5,6'-PeCB(68194-06-9)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',4,5-TeCB(70362-47-9)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',4,6'-TeCB(68194-04-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',4,6,6'-PeCB(56558-16-8)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',4,6-TeCB(62796-65-0)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',4-TrCB(37680-66-3)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',5,5'-Tetrachlorobiphenyl(35693-99-3)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)

Analysis (lab name)	EPA Characteristic Name	Compound Class	Method Speciation Name	Result Sample Fraction	Result Measure Unit	Result Value Type	Sample Collection Type	Sample Collection Equipment
LAB-TBD	2,2',5,6'-TeCB(41464-41-9)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',5-Trichlorobiphenyl(37680-65-2)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',6,6'-TeCB(15968-05-5)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2',6-TrCB(38444-73-4)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,2'-DiCB(13029-08-8)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3',4',5'-TeCB(32598-11-1)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3',4',6'-TeCB(41464-46-4)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3',4,4',5',6'-HxCB(59291-65-5)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3',4,4',5',5'-HxCB(52663-72-6)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3',4,4',5-Pentachlorobiphenyl(31508-00-6)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3',4,4',6-PeCB(56558-17-9)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3',4,4'-Tetrachlorobiphenyl(32598-10-0)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3',4,5'-TeCB(73575-52-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3',4,5,'6-PeCB(56558-18-0)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3',4,5,5'-PeCB(68194-12-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3',4,5-TeCB(73575-53-8)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3',4,6-TeCB(60233-24-1)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3',4-TrCB(55712-37-3)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)

Analysis (lab name)	EPA Characteristic Name	Compound Class	Method Speciation Name	Result Sample Fraction	Result Measure Unit	Result Value Type	Sample Collection Type	Sample Collection Equipment
LAB-TBD	2,3',5',6-TeCB(74338-23-1)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3',5,5'-TeCB(41464-42-0)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3',5-TrCB(38444-81-4)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3',6-TrCB(38444-76-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3'-DiCB(25569-80-6)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',4',5',6-HxCB(74472-45-0)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',4',5,5',6-HpCB(69782-91-8)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',4',5,5'-HxCB(39635-34-2)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',4',5,6-HxCB(74472-44-9)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',4',5-PeCB(70424-68-9)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',4',6-PeCB(38380-03-9)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',4'-TeCB(41464-43-1)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',4'-TeCB(74338-24-2)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',4,4',5',6-HpCB(74472-50-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',4,4',5'-HxCB(69782-90-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',4,4',5,5',6-OcCB(74472-53-0)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',4,4',5,5'-HpCB(39635-31-9)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',4,4',5,6-HpCB(41411-64-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)

Analysis (lab name)	EPA Characteristic Name	Compound Class	Method Speciation Name	Result Sample Fraction	Result Measure Unit	Result Value Type	Sample Collection Type	Sample Collection Equipment
LAB-TBD	2,3,3',4,4',5-HxCB(38380-08-4)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',4,4',6-HxCB(74472-42-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',4,4'-Pentachlorobiphenyl(32598-14-4)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',4,5',6-HxCB(74472-43-8)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',4,5'-PeCB(70362-41-3)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',4,5,5',6-HpCB(74472-51-8)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',4,5,5'-HxCB(39635-35-3)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',4,5,6-HxCB(41411-62-5)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',4,5-PeCB(70424-69-0)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',4,6-PeCB(74472-35-8)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',5',6-PeCB(68194-10-5)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',5'-TeCB(41464-49-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',5,5',6-HxCB(74472-46-1)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',5,5'-PeCB(39635-32-0)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',5,6-PeCB(74472-36-9)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',5'-TeCB(70424-67-8)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3',6'-TeCB(74472-33-6)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,3'-TrCB(38444-84-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)

Analysis (lab name)	EPA Characteristic Name	Compound Class	Method Speciation Name	Result Sample Fraction	Result Measure Unit	Result Value Type	Sample Collection Type	Sample Collection Equipment
LAB-TBD	2,3,4',5,6-PeCB(68194-11-6)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,4',5-TeCB(74472-34-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,4',6-TeCB(52663-58-8)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,4'-TrCB(38444-85-8)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,4,4',5,6-HxCB(41411-63-6)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,4,4',5-PeCB(74472-37-0)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,4,4',6-PeCB(74472-38-1)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,4,4'-TeCB(33025-41-1)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,4,5,6-PeCB(18259-05-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,4,5-TeCB(33284-53-6)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,4,6-TeCB(54230-22-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,4-TrCB(55702-46-0)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,5,6-TeCB(33284-54-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,5-TrCB(55720-44-0)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3,6-TrCB(55702-45-9)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,3-Dichlorobiphenyl(16605-91-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,4',5-TrCB(16606-02-3)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,4',6-TrCB(38444-77-8)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)

Analysis (lab name)	EPA Characteristic Name	Compound Class	Method Speciation Name	Result Sample Fraction	Result Measure Unit	Result Value Type	Sample Collection Type	Sample Collection Equipment
LAB-TBD	2,4'-Dichlorobiphenyl(34883-43-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,4,4',5-TeCB(32690-93-0)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,4,4',6-TeCB(32598-12-2)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,4,4'-Trichlorobiphenyl(7012-37-5)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,4,5-Trichlorobiphenyl(15862-07-4)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,4,6-TrCB(35693-92-6)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,4-DiCB(33284-50-3)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,5-DiCB(34883-39-1)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2,6-DiCB(33146-45-1)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	2-Chlorobiphenyl(2051-60-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	3,3',4,4',5,5'-HxCB(32774-16-6)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	3,3',4,4',5-Pentachlorobiphenyl(57465-28-8)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	3,3',4,4'-Tetrachlorobiphenyl(32598-13-3)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	3,3',4,5'-TeCB(41464-48-6)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	3,3',4,5,5'-PeCB(39635-33-1)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	3,3',4,5-TeCB(70362-49-1)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	3,3',4-TrCB(37680-69-6)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	3,3',5,5'-TeCB(33284-52-5)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)

Analysis (lab name)	EPA Characteristic Name	Compound Class	Method Speciation Name	Result Sample Fraction	Result Measure Unit	Result Value Type	Sample Collection Type	Sample Collection Equipment
LAB-TBD	3,3',5-TrCB(38444-87-0)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	3,3'-DiCB(2050-67-1)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	3,4',5-TrCB(38444-88-1)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	3,4'-DiCB(2974-90-5)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	3,4,4',5-TeCB(70362-50-4)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	3,4,4'-TrCB(38444-90-5)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	3,4,5-TrCB(53555-66-1)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	3,4-DiCB(2974-92-7)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	3,5-DiCB(34883-41-5)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	3-MoCB(2051-61-8)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	4,4'-DiCB(2050-68-2)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
LAB-TBD	4-MoCB(2051-62-9)	PCB congeners	USEPA 1668A	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	Perfluorobutanoate (PFBA)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	Perfluoropentanoate (PFPeA)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	Perfluorohexanoate (PFHxA)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	Perfluoroheptanoate (PFHpA)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	Perfluorooctanoate (PFOA)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	Perfluorononanoate (PFNA)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)

Analysis (lab name)	EPA Characteristic Name	Compound Class	Method Speciation Name	Result Sample Fraction	Result Measure Unit	Result Value Type	Sample Collection Type	Sample Collection Equipment
SGS AXYS ANALYTICAL (CANA005)	Perfluorodecanoate (PFDA)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	Perfluoroundecanoate (PFUnA)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	Perfluorododecanoate (PFDoA)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	Perfluorotridecanoate (PFTrDA)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	Perfluorotetradecanoate (PFTeDA)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	Perfluorobutanesulfonate (PFBS)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	Perfluoropentanesulfonate (PFPeS)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	Perfluorohexanesulfonate (PFHxS)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	Perfluoroheptanesulfonate (PFHpS)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	Perfluorooctanesulfonate (PFOS)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	Perfluorononanesulfonate (PFNS)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	Perfluorodecanesulfonate (PFDS)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	Perfluorododecanesulfonate (PFDoS)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	4:2 fluorotelomersulfonate (4:2 FTS)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	6:2 fluorotelomersulfonate (6:2 FTS)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	8:2 fluorotelomersulfonate (8:2 FTS)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	N-Methylperfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	N-Ethylperfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)

Analysis (lab name)	EPA Characteristic Name	Compound Class	Method Speciation Name	Result Sample Fraction	Result Measure Unit	Result Value Type	Sample Collection Type	Sample Collection Equipment
SGS AXYS ANALYTICAL (CANA005)	Perfluorooctanesulfonamide (PFOSA), a.k.a FOSA	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	N-Methylperfluorooctanesulfonamide (N-MeFOSA)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	N-Ethylperfluorooctanesulfonamide (N-EtFOSA)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	N-Ethylperfluorooctanesulfonamidoethanol (N-EtFOSE)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	Perfluoro-2-propoxypropanoate (HFPO-DA)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	4-dioxa-3H-perfluorononanoate (ADONA)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	11-chloroeicosafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	3:3 perfluorohexanoic acid (3:3 FTCA)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	5:3 perfluorooctanoic acid (5:3 FTCA)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	7:3 perfluorodecanoic acid (7:3 FTCA)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	Perfluoro-4-methoxybutanoate (PFMBA)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	Perfluoro-3-methoxypropanoate (PFMPA)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)
SGS AXYS ANALYTICAL (CANA005)	Perfluoro-3,6-dioxaheptanoate (NFDHA)	PFAS	MLA-110 R.02 V.12	Total	ng/g	Actual	fillet	Miscellaneous (Other)

Table A-2. Lab Worksheet

	Laboratory	Lab Number	Method	Method ID Context	Method Detection Limit	units	Holding Time	Preservative
Total Mercury	NJ Dept of Health	11036	CHE.0009	FDA	5.74	ug/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
2',3,3',4,5-PeCB(76842-07-4)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2',3,4,4',5-PeCB(65510-44-3)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2',3,4,5,5'-PeCB(70424-70-3)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2',3,4,5,6'-PeCB(74472-39-2)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2',3,4,5-TeCB(70362-48-0)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2',3,4-TrCB(38444-86-9)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2',3,5-TrCB(37680-68-5)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3',4,5-PeCB(41464-51-1)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3',4,6-Pentachlorobiphenyl(60233-25-2)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',4',5,6-HpCB(52663-70-4)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl(2051-24-3)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl(40186-72-9)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',4,4',5,5'-OcCB(35694-08-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',4,4',5,6'-OcCB(42740-50-1)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.

	Laboratory	Lab Number	Method	Method ID Context	Method Detection Limit	units	Holding Time	Preservative
2,2',3,3',4,4',5,6,6'-NoCB(52663-79-3)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',4,4',5,6-Octachlorobiphenyl(52663-78-2)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',4,4',5-Heptachlorobiphenyl(35065-30-6)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',4,4',6,6'-OoCB(33091-17-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',4,4',6-Heptachlorobiphenyl(52663-71-5)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',4,4'-Hexachlorobiphenyl(38380-07-3)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',4,5',6,6'-Octachlorobiphenyl(40186-71-8)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',4,5',6-HpCB(40186-70-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',4,5'-HxCB(52663-66-8)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',4,5,5',6'-OoCB(52663-75-9)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',4,5,5',6,6'-NoCB(52663-77-1)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',4,5,5',6-OoCB(68194-17-2)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',4,5,5'-HpCB(52663-74-8)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',4,5,6'-HpCB(38411-25-5)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',4,5,6,6'-OoCB(52663-73-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',4,5,6-HpCB(68194-16-1)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.

	Laboratory	Lab Number	Method	Method ID Context	Method Detection Limit	units	Holding Time	Preservative
2,2',3,3',4,5-HxCB(55215-18-4)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',4,6'-HxCB(38380-05-1)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',4,6,6'-HpCB(52663-65-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',4,6-HxCB(61798-70-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',4-PeCB(52663-62-4)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',5,5',6,6'-OcCB(2136-99-4)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',5,5',6-HpCB(52663-67-9)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',5,5'-HxCB(35694-04-3)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',5,6'-HxCB(52744-13-5)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',5,6,6'-HpCB(52663-64-6)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',5,6-HxCB(52704-70-8)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',5-PeCB(60145-20-2)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',6,6'-HxCB(38411-22-2)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3',6-PeCB(52663-60-2)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,3'-TeCB(38444-93-8)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4',5',6-HxCB(38380-04-0)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.

	Laboratory	Lab Number	Method	Method ID Context	Method Detection Limit	units	Holding Time	Preservative
2,2',3,4',5,5',6-Heptachlorobiphenyl(52663-68-0)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4',5,5'-HxCB(51908-16-8)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4',5,6'-HxCB(74472-41-6)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4',5,6,6'-HpCB(74487-85-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4',5,6-HxCB(68194-13-8)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4',5-PeCB(68194-07-0)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4',6,6'-HxCB(68194-08-1)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4',6-PeCB(68194-05-8)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4'-TeCB(36559-22-5)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4,4',5',6-HpCB(52663-69-1)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4,4',5'-Hexachlorobiphenyl(35065-28-2)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4,4',5,5',6-OcCB(52663-76-0)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4,4',5,5'-HpCB(35065-29-3)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4,4',5,6'-HpCB(60145-23-5)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4,4',5,6,6'-OcCB(74472-52-9)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4,4',5,6-HpCB(74472-47-2)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.

	Laboratory	Lab Number	Method	Method ID Context	Method Detection Limit	units	Holding Time	Preservative
2,2',3,4,4',5-HxCB(35694-06-5)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4,4',6-HxCB(59291-64-4)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4,4',6,6'-HpCB(74472-48-3)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4,4',6-HxCB(56030-56-9)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4,4'-PeCB(65510-45-4)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4,5',6-HxCB(68194-14-9)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4,5'-PeCB(38380-02-8)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4,5',6-HpCB(52712-05-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4,5,5'-HxCB(52712-04-6)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4,5,6'-HxCB(68194-15-0)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4,5,6,6'-HpCB(74472-49-4)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4,5,6-HxCB(41411-61-4)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4,5-PeCB(55312-69-1)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4,6'-PeCB(73575-57-2)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4,6,6'-HxCB(74472-40-5)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,4,6-PeCB(55215-17-3)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.

	Laboratory	Lab Number	Method	Method ID Context	Method Detection Limit	units	Holding Time	Preservative
2,2',3,4-TeCB(52663-59-9)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,5',6-PeCB(38379-99-6)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,5'-Tetrachlorobiphenyl(41464-39-5)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,5,5',6-HxCB(52663-63-5)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,5,5'-PeCB(52663-61-3)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,5,6'-PeCB(73575-55-0)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,5,6,6'-HxCB(68194-09-2)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,5,6-PeCB(73575-56-1)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,5-TeCB(70362-46-8)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,6'-TeCB(41464-47-5)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,6,6'-PeCB(73575-54-9)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3,6-TeCB(70362-45-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',3-TrCB(38444-78-9)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',4,4',5',6-Hexachlorobiphenyl(60145-22-4)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',4,4',5,5'-Hexachlorobiphenyl(35065-27-1)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',4,4',5-PeCB(38380-01-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.

	Laboratory	Lab Number	Method	Method ID Context	Method Detection Limit	units	Holding Time	Preservative
2,2',4,4',6,6'-HxCB(33979-03-2)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',4,4',6-PeCB(39485-83-1)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',4,4'-Tetrachlorobiphenyl(2437-79-8)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',4,5'-TeCB(41464-40-8)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',4,5',6-PeCB(60145-21-3)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',4,5,5'-Pentachlorobiphenyl(37680-73-2)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',4,5,6'-PeCB(68194-06-9)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',4,5-TeCB(70362-47-9)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',4,6'-TeCB(68194-04-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',4,6,6'-PeCB(56558-16-8)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',4,6-TeCB(62796-65-0)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',4-TrCB(37680-66-3)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',5,5'-Tetrachlorobiphenyl(35693-99-3)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',5,6'-TeCB(41464-41-9)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',5-Trichlorobiphenyl(37680-65-2)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2',6,6'-TeCB(15968-05-5)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.

	Laboratory	Lab Number	Method	Method ID Context	Method Detection Limit	units	Holding Time	Preservative
2,2',6-TrCB(38444-73-4)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,2'-DiCB(13029-08-8)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3',4',5'-TeCB(32598-11-1)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3',4',6'-TeCB(41464-46-4)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3',4,4',5',6'-HxCB(59291-65-5)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3',4,4',5,5'-HxCB(52663-72-6)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3',4,4',5'-Pentachlorobiphenyl(31508-00-6)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3',4,4',6'-PeCB(56558-17-9)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3',4,4'-Tetrachlorobiphenyl(32598-10-0)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3',4,5'-TeCB(73575-52-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3',4,5',6'-PeCB(56558-18-0)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3',4,5,5'-PeCB(68194-12-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3',4,5'-TeCB(73575-53-8)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3',4,6'-TeCB(60233-24-1)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3',4-TrCB(55712-37-3)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3',5',6'-TeCB(74338-23-1)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.

	Laboratory	Lab Number	Method	Method ID Context	Method Detection Limit	units	Holding Time	Preservative
2,3',5,5'-TeCB(41464-42-0)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3',5-TrCB(38444-81-4)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3',6-TrCB(38444-76-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3'-DiCB(25569-80-6)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',4',5',6-HxCB(74472-45-0)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',4',5,5',6-HpCB(69782-91-8)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',4',5,5'-HxCB(39635-34-2)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',4',5,6-HxCB(74472-44-9)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',4',5-PeCB(70424-68-9)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',4',6-PeCB(38380-03-9)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',4'-TeCB(41464-43-1)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',4'-TeCB(74338-24-2)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',4,4',5',6-HpCB(74472-50-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',4,4',5'-HxCB(69782-90-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',4,4',5,5',6-OcCB(74472-53-0)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',4,4',5,5'-HpCB(39635-31-9)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.

	Laboratory	Lab Number	Method	Method ID Context	Method Detection Limit	units	Holding Time	Preservative
2,3,3',4,4',5,6-HpCB(41411-64-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',4,4',5-HxCB(38380-08-4)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',4,4',6-HxCB(74472-42-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',4,4'-Pentachlorobiphenyl(32598-14-4)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',4,5',6-HxCB(74472-43-8)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',4,5'-PeCB(70362-41-3)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',4,5',6-HpCB(74472-51-8)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',4,5,5'-HxCB(39635-35-3)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',4,5,6-HxCB(41411-62-5)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',4,5'-PeCB(70424-69-0)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',4,6'-PeCB(74472-35-8)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',5',6'-PeCB(68194-10-5)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',5'-TeCB(41464-49-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',5,5',6-HxCB(74472-46-1)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',5,5'-PeCB(39635-32-0)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',5,6'-PeCB(74472-36-9)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.

	Laboratory	Lab Number	Method	Method ID Context	Method Detection Limit	units	Holding Time	Preservative
2,3,3',5-TeCB(70424-67-8)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3',6-TeCB(74472-33-6)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,3'-TrCB(38444-84-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,4',5,6-PeCB(68194-11-6)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,4',5-TeCB(74472-34-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,4',6-TeCB(52663-58-8)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,4'-TrCB(38444-85-8)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,4,4',5,6-HxCB(41411-63-6)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,4,4',5-PeCB(74472-37-0)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,4,4',6-PeCB(74472-38-1)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,4,4'-TeCB(33025-41-1)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,4,5,6-PeCB(18259-05-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,4,5-TeCB(33284-53-6)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,4,6-TeCB(54230-22-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,4-TrCB(55702-46-0)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,5,6-TeCB(33284-54-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.

	Laboratory	Lab Number	Method	Method ID Context	Method Detection Limit	units	Holding Time	Preservative
2,3,5-TrCB(55720-44-0)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,6-TrCB(55702-45-9)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3-Dichlorobiphenyl(16605-91-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,4',5-TrCB(16606-02-3)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,4',6-TrCB(38444-77-8)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,4'-Dichlorobiphenyl(34883-43-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,4,4',5-TeCB(32690-93-0)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,4,4',6-TeCB(32598-12-2)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,4,4'-Trichlorobiphenyl(7012-37-5)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,4,5-Trichlorobiphenyl(15862-07-4)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,4,6-TrCB(35693-92-6)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,4-DiCB(33284-50-3)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,5-DiCB(34883-39-1)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,6-DiCB(33146-45-1)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2-Chlorobiphenyl(2051-60-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
3,3',4,4',5,5'-HxCB(32774-16-6)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.

	Laboratory	Lab Number	Method	Method ID Context	Method Detection Limit	units	Holding Time	Preservative
3,3',4,4',5-Pentachlorobiphenyl(57465-28-8)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
3,3',4,4'-Tetrachlorobiphenyl(32598-13-3)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
3,3',4,5'-TeCB(41464-48-6)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
3,3',4,5',5'-PeCB(39635-33-1)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
3,3',4,5'-TeCB(70362-49-1)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
3,3',4-TrCB(37680-69-6)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
3,3',5,5'-TeCB(33284-52-5)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
3,3',5-TrCB(38444-87-0)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
3,3'-DiCB(2050-67-1)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
3,4',5-TrCB(38444-88-1)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
3,4'-DiCB(2974-90-5)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
3,4,4',5'-TeCB(70362-50-4)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
3,4,4'-TrCB(38444-90-5)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
3,4,5-TrCB(53555-66-1)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
3,4-DiCB(2974-92-7)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
3,5-DiCB(34883-41-5)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.

	Laboratory	Lab Number	Method	Method ID Context	Method Detection Limit	units	Holding Time	Preservative
3-MoCB(2051-61-8)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
4,4'-DiCB(2050-68-2)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
4-MoCB(2051-62-9)	LAB-TBD	LAB-TBD	1668A	USEPA	TBD	ng/g	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,5,6-Tetrachloronitrobenzene(117-18-0)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,4' -DDD(53-19-0)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,4'-DDE(3424-82-6)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
4,4'-DDD(72-54-8)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
4,4'-DDE(72-55-9)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Aldrin(309-00-2)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Ametryn(834-12-8)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Atrazine(1912-24-9)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Azinphos-methyl(86-50-0)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Captan(133-06-2)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Chlorothalonil(1897-45-6)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Chlorpyrifos(2921-88-2)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Chlorpyrifos methyl(5598-13-0)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.

	Laboratory	Lab Number	Method	Method ID Context	Method Detection Limit	units	Holding Time	Preservative
Chlorpyrifos oxon(5598-15-2)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Cyanazine(21725-46-2)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Cypermethrin(52315-07-8)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
DCPA(1861-32-1)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Desethylatrazine(6190-65-4)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Diazinon(333-41-5)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Diazinon oxon(962-58-3)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Dieldrin(60-57-1)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Disulfoton(298-04-4)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Disulfoton sulfone(2497-06-5)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Endosulfan sulfate(1031-07-8)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Endosulfan-I(959-98-8)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Endosulfan-II(33213-65-9)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Endrin(72-20-8)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Endrin ketone(53494-70-5)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Ethyl parathion(56-38-2)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.

	Laboratory	Lab Number	Method	Method ID Context	Method Detection Limit	units	Holding Time	Preservative
Fenitrothion(122-14-5)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Fonofos(944-22-9)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Heptachlor(76-44-8)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Heptachlor epoxide(1024-57-3)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Herbicides(E-12839)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Hexachlorobenzene(118-74-1)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Hexazinone(51235-04-2)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Lindane(58-89-9)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Malathion(121-75-5)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Methamidophos(10265-92-6)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Methoxychlor(72-43-5)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Methyl parathion(298-00-0)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Metribuzin(21087-64-9)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Mirex(2385-85-5)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Octachlorostyrene(29082-74-4)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Organics, semivolatiles(E-12884)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.

	Laboratory	Lab Number	Method	Method ID Context	Method Detection Limit	units	Holding Time	Preservative
Organochlorine pesticides(E-12851)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Organophosphate pesticides(E-12873)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Oxychlorane(27304-13-8)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Pentachloronitrobenzene(82-68-8)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Permethrin(52645-53-1)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Perthane(72-56-0)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Phorate(298-02-2)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Phosmet(732-11-6)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Pirimiphos-methyl(29232-93-7)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Simazine(122-34-9)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
alpha-BHC(319-84-6)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
alpha-Chlordane(5103-71-9)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
beta-BHC(319-85-7)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
cis-Nonachlor(5103-73-1)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
delta-BHC(319-86-8)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
o,p'-DDT(789-02-6)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.

	Laboratory	Lab Number	Method	Method ID Context	Method Detection Limit	units	Holding Time	Preservative
p,p'-DDT(50-29-3)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
trans-Chlordane(5103-74-2)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
trans-Nonachlor(39765-80-5)	LAB-TBD	LAB-TBD	1699	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Hexachlorodibenzofuran	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Pentachlorodibenzofuran	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Tetrachlorodibenzo-p-dioxin	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
1,2,3,4,6,7,8,9-Octachlorodibenzofuran	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
1,2,3,4,7,8-Hexachlorodibenzofuran	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,4,7,8-Pentachlorodibenzofuran	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Heptachlorodibenzofuran	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
1,2,3,6,7,8-Hexachlorodibenzofuran	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,7,8-Tetrachlorodibenzofuran	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
1,2,3,4,6,7,8-Heptachlorodibenzofuran	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.

	Laboratory	Lab Number	Method	Method ID Context	Method Detection Limit	units	Holding Time	Preservative
2,3,4,6,7,8-Hexachlorodibenzofuran	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,7,8-Tetrachlorodibenzofuran	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
1,2,3,4,7,8,9-Heptachlorodibenzofuran	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Pentachlorodibenzo-p-dioxin	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
1,2,6,7-tetrachlorodibenzofuran	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
2,3,7,8-Tetrachlorodibenzo-p-dioxin	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
1,2,3,7,8-Pentachlorodibenzofuran	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Heptachlorodibenzo-p-dioxin	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
1,2,3,7,8,9-Hexachlorodibenzofuran	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Hexachlorodibenzo-p-dioxin	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Hexachlorodibenzo-p-dioxin	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Perfluorobutanoate (PFBA)	LAB-TBD	LAB-TBD	1613B	USEPA	TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Perfluorobutanoate (PFBA)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.

	Laboratory	Lab Number	Method	Method ID Context	Method Detection Limit	units	Holding Time	Preservative
Perfluoropentanoate (PFPeA)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Perfluorohexanoate (PFHxA)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Perfluoroheptanoate (PFHpA)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Perfluorooctanoate (PFOA)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Perfluorononanoate (PFNA)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Perfluorodecanoate (PFDA)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Perfluoroundecanoate (PFUnA)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Perfluorododecanoate (PFDoA)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Perfluorotridecanoate (PFTrDA)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Perfluorotetradecanoate (PFTeDA)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Perfluorobutanesulfonate (PFBS)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Perfluoropentanesulfonate (PFPeS)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Perfluorohexanesulfonate (PFHxS)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Perfluoroheptanesulfonate (PFHpS)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Perfluorooctanesulfonate (PFOS)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.

	Laboratory	Lab Number	Method	Method ID Context	Method Detection Limit	units	Holding Time	Preservative
Perfluorononanesulfonate (PFNS)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Perfluorodecanesulfonate (PFDS)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Perfluorododecanesulfonate (PFDoS)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
4:2 fluorotelomersulfonate (4:2 FTS)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
6:2 fluorotelomersulfonate (6:2 FTS)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
8:2 fluorotelomersulfonate (8:2 FTS)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
N-Methylperfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
N-Ethylperfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Perfluorooctanesulfonamide (PFOSA), a.k.a FOSA	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
N-Methylperfluorooctanesulfonamide (N-MeFOSA)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
N-Ethylperfluorooctanesulfonamide (N-EtFOSA)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
N-Ethylperfluorooctanesulfonamidoethanol (N-EtFOSE)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Perfluoro-2-propoxypropanoate (HFPO-DA)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.

4-dioxa-3H-perfluorononanoate (ADONA)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
11-chloroeicosafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
3:3 perfluorohexanoic acid (3:3 FTCA)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
5:3 perfluorooctanoic acid (5:3 FTCA)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
7:3 perfluorodecanoic acid (7:3 FTCA)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Perfluoro-4-methoxybutanoate (PFMBA)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Perfluoro-3-methoxypropanoate (PFMPA)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.
Perfluoro-3,6-dioxaheptanoate (NFDHA)	SGS AXYS ANALYTICAL	(CANA005)	MLA-110 R.02 V.12		TBD	ng/kg	1 year	Ice to 4°C in field. Freeze within 24 hours.

APPENDIX B: Lab Chain of Custody - NJDOH

Field ID Number FTM040LMB0117D	New Jersey Department of Health Environmental and Chemical Laboratory Services PO Box 361, Trenton, NJ 08625-0361 Phone: 609-530-2820 ORGANIC AND INORGANIC CHEMISTRY SAMPLE SUBMITTAL <i>(See Instructions)</i>	Lab Sample Number (For Lab Use Only)
AGENCY INFORMATION		
Submitting Agency NJDEP- BFBM	Send Results To	Agency No.
Street Address 35 Arctic Parkway	Final Report Option <input type="checkbox"/> Tier 1 <input type="checkbox"/> Tier 2 Electronic Report Option <input type="checkbox"/> EDD <input type="checkbox"/> E-2	Would you like copies of the internal chain of custody forms sent with your report? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
City, State, Zip Code Trenton, NJ, 08625	Phone 609-292-0427	Fax
Project Name NJDEP Freshwater Fish Tissue Monitoring		Project Code
Memo Number		Email Brian.Henning@dep.nj.gov
SAMPLE INFORMATION		
Sample Point/Station ID Number/Water Facility ID FTM040	Collection Date (YY/MM/DD) 1 7 / 0 7 / 1 7	Sample Type
Sampling Site/Facility/Supply/Location/Sampling Point ID	Coll. Time (24h) Start 1 2 0 0	<input type="checkbox"/> Stream/Surface <input type="checkbox"/> Tissue <input type="checkbox"/> Ground Water <input type="checkbox"/> Sewage <input type="checkbox"/> Private Well <input type="checkbox"/> Raw <input type="checkbox"/> Effluent <input type="checkbox"/> Septic <input type="checkbox"/> Industrial <input type="checkbox"/> Ocean/Saline <input type="checkbox"/> Raw <input type="checkbox"/> Effluent <input type="checkbox"/> Sediment
Waterbody Name Assunpink Lake	Sample Retention Retain? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes Duration _____	<input type="checkbox"/> Potable <input type="checkbox"/> At Source <input type="checkbox"/> Ground Water Raw <input type="checkbox"/> Flushed <input type="checkbox"/> Confirmation <input type="checkbox"/> 1st Draw <input type="checkbox"/> Raw <input type="checkbox"/> Lead Source Line <input type="checkbox"/> Flushed <input type="checkbox"/> Surface H ₂ O Intake <input type="checkbox"/> Private Well <input type="checkbox"/> Distribution System Action: <input type="checkbox"/> Total <input type="checkbox"/> Dissolved Other: <input type="checkbox"/> FISH
Municipality/County Upper Freehold/ Monmouth	Type of Sampling Event <input checked="" type="checkbox"/> Regular <input type="checkbox"/> Compliance <input type="checkbox"/> Repeat <input type="checkbox"/> Non-Regulatory <input type="checkbox"/> Other	Priority: <input checked="" type="checkbox"/> Routine <input type="checkbox"/> Priority <input type="checkbox"/> Emergency
Sampling Point Street Address	If Repeat or GWR, List Original Lab Sample No.	
PWSID	Sample Collector Brian Henning	
	Trip #	
FIELD INFORMATION		
Air Temp °C	Water Temp °C	Stream Flow-CFS
Weather Conditions	Sample pH (Field)	Gage Height-Ft.
Preserved in: <input type="checkbox"/> Field <input type="checkbox"/> Lab	DO (mg/l)	Spec Cond. (µS/CM)
Date: ___/___/___ Time: ___:___:___	DO% Sat.	Salinity (ppm)
Chlorine Residual	Sample Depth	Tide Stage
Comments/Field Checks	Barometric Pressure (mmHg)	Turbidity (NTU)
ANALYSIS REQUESTS		
Metals <input type="checkbox"/> Ag Silver <input type="checkbox"/> Mg Magnesium <input type="checkbox"/> Al Aluminum <input type="checkbox"/> Mn Manganese <input type="checkbox"/> As Arsenic <input type="checkbox"/> Mo Molybdenum <input type="checkbox"/> B Boron <input type="checkbox"/> Ni Nickel <input type="checkbox"/> Ba Barium <input type="checkbox"/> Pb Lead <input type="checkbox"/> Be Beryllium <input type="checkbox"/> Sb Antimony <input type="checkbox"/> Ca Calcium <input type="checkbox"/> Se Selenium <input type="checkbox"/> Cd Cadmium <input type="checkbox"/> Si Silica <input type="checkbox"/> Co Cobalt <input type="checkbox"/> Sn Tin <input type="checkbox"/> Cr Chromium <input type="checkbox"/> Tl Thallium <input type="checkbox"/> Cu Copper <input type="checkbox"/> U Uranium <input type="checkbox"/> Fe Iron <input type="checkbox"/> V Vanadium <input type="checkbox"/> K Potassium <input type="checkbox"/> Zn Zinc Preferred Methodology <input type="checkbox"/> EPA 200.7 / 200.9 <input type="checkbox"/> EPA 200.8	General <input type="checkbox"/> Ammonia <input type="checkbox"/> Bromide by IC <input type="checkbox"/> Chloride <input type="checkbox"/> Chloride by IC <input type="checkbox"/> Chromium, Hexavalent <input type="checkbox"/> Chromium, Hexavalent by IC <input type="checkbox"/> Color <input type="checkbox"/> Conductance <input type="checkbox"/> Cyanide <input type="checkbox"/> Dissolved Oxygen <input type="checkbox"/> Fluoride <input type="checkbox"/> Fluoride by IC <input type="checkbox"/> Hardness <input type="checkbox"/> MBAS <input type="checkbox"/> Odor <input type="checkbox"/> pH <input type="checkbox"/> Phenols (PW) <input type="checkbox"/> Phenols (NPW) <input type="checkbox"/> Sulfate by IC <input type="checkbox"/> Sulfate Lachat <input type="checkbox"/> Turbidity	Organics (Drinking Water) <input type="checkbox"/> EPA 504.1 - EDB, DBCP, 1,2,3,4-TCDF <input type="checkbox"/> EPA 505 - Chlordane <input type="checkbox"/> EPA 505 - Toxaphene <input type="checkbox"/> EPA 507 - N and P containing Pesticides <input type="checkbox"/> EPA 515.3 - Chlorinated Acid Herbicides <input type="checkbox"/> EPA 524.2 - Purgeables <input type="checkbox"/> EPA 525.2 - Liquid-Solid Extractables <input type="checkbox"/> EPA 531.1 - N-Methylcarbamoyloximes and N-Methylcarbamates Organics (Non-Potable Water) <input type="checkbox"/> EPA 624 - Purgeables <input type="checkbox"/> EPA 625 - Base/Neutral and Acid Extractables
Residues <input type="checkbox"/> Total Suspended Solids (TSS) <input type="checkbox"/> Total Solids (TS) <input type="checkbox"/> Total Dissolved Solids (TDS) <input type="checkbox"/> Settleable Solids (SS) <input type="checkbox"/> Total Volatile Solids (TVS)	Mercury <input type="checkbox"/> Mercury by EPA 245.1 <input checked="" type="checkbox"/> Low Level Mercury EPA 1631E Nutrients <input type="checkbox"/> Nitrite <input type="checkbox"/> Nitrite + Nitrate <input type="checkbox"/> Total Phosphorus <input type="checkbox"/> Ortho Phosphorus <input type="checkbox"/> Ammonia <input type="checkbox"/> Total Kjeldahl Nitrogen (TKN) <input type="checkbox"/> Nitrate (Calculated) <input type="checkbox"/> Nitrogen, Total (Calculated)	Demands <input type="checkbox"/> Total Organic Carbon (TOC) <input type="checkbox"/> Dissolved Organic Carbon (DOC) <input type="checkbox"/> Chemical Oxygen Demand (COD) Suggested Dilutions <input type="checkbox"/> BOD5 <input type="checkbox"/> BOD20 _____ <input type="checkbox"/> CBOD5 <input type="checkbox"/> CBOD20 _____
<input type="checkbox"/> Other _____		
Relinquished By: Name (Print): Brian Henning Signature: _____ Affiliation: NJDEP-BFBM Received By: Name (Print): _____ Signature: _____ Affiliation: _____ Date/Time: _____ Reason for Custody Change: _____		

Lab Chain of Custody – Example

REPORT TO:			INVOICE TO:			ANALYSIS REQUESTED				
Company NUDEP Div. Science & Research			Company Same as "Report To"							
Address 428 E. State Street			Address							
Mail Code 428-01 PO Box 420										
Trenton, NJ 08625-0420										
Contact Sandra Goodrow			Contact							
Phone (609) 940-4164			Phone							
FAX			FAX							
E-mail Sandra.Goodrow@dep.nj.gov			E-mail							
Project Name/Number: NUDEP-Freshwater			Sampler's Name: Signature:							
Client Sample Identification	Matrix	Sampling Date	Sampling Time	Container Type/No.	AXYS Lab Sample ID (Lab use only)					
Relinquished by (Signature)	Date	Time	Received by (Signature)			Courier	Waybill No.			
			Date Time							
Relinquished by (Signature)	Date	Time	Received by (Signature)			Sample Receipt				
			Date Time							
Remarks Com						Cooler				
						Temp °C				
						Custody Seal #				
						Seal Intact Y / N				
						Sample Tags	Y / N			