APPENDIX A

State and Federal Permits for 2017 Biota Collection

STATE OF MAINE
DEPARTMENT OF INLAND FISHERIES AND WILDIFE

PERMIT

Amec Foster Wheeler Env. & Infrastructure 1075 Big Shanty Road NW Suite 100 Kennesaw, GA 30144	**Date** **Effective** 03/01/2017	**Expiration** 10/31/2017
	Renewable Yes ☐ No ☐	**Fee** N/A

Name of Principal Officer (If business) Jonathan Bourdeau	**Type of Permit** **SCIENTIFIC FISH COLLECTORS**

Location where authorized activity may be conducted
Penobscot River from Orono, Penobscot County to Harborside, Hancock County, and in Mendall Marsh, Waldo County. Reference sampling will occur in Frenchman Bay in Hancock County (Figure 1)

Permittee must notify the Regional Fishery Biologist prior to conducting any type of fish collections. Trapnets and gillnets are not to be used without prior written notification to the District Warden. This permit must be carried on the person of the permittee while exercising the privileges granted herein. This permit is non-transferable and permitted activities can only be conducted by those individuals listed on this permit.

Condition(s) of the permit: to comply with a US District Court Order requiring sampling for mercury contamination to be conducted in the Penobscot River and Bay. Table 1 and Figure 1 describe the biota monitoring.

Gear: eel pots, hoop nets, seines, cast nets, minnow traps, shovels, and by hand

Species and Numbers: See Table 1 attached

Disposition: The specimens will be dispatched for muscle tissue collection and whole body tissue sampling analysis.

Subpermittees: Only the following subpermittees can engage in the permitted activities.

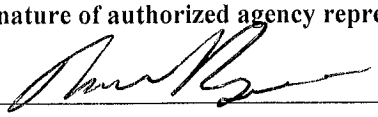
Louise Venne, Travis Otis, Kendra Bavor, Michael Lounsbury, Danielle Lerner, Julie Pallozzi, Matthew Martin, Lauren Tierney, David Young

All applicants must provide and follow a written disinfection and biosecurity plan. The plan should include policies and procedures for removal of aquatic plants, cleaning and disinfection of field equipment between collection sites, as well as reporting aquatic invasive fish species to the MDIFW (287-5263).

Work on DPS salmon rivers should be cleared with the DMR, Sea Run Fisheries and Habitat.

When working on tribal lands please contact the appropriate tribal official.

Reporting requirements: Copies of any data forms and associated reports must be submitted to the Fisheries Division in our Augusta Office 284 State Street, Augusta, Maine 04333by the end of the calendar year.

Signature of authorized agency representative	**Director of Fisheries**	**Date**
		2/17/2017

STATE OF MAINE
DEPARTMENT OF INLAND FISHERIES AND WILDLIFE
284 STATE STREET
41 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0041

AMEC FOSTER WHEELER ENV. INFRASTRUCTURE
JONATHAN BOURDEAU
1075 BIG SHANTY ROAD NW
SUITE 100
KENNESAW GA 30144

30144$3652 C014

STATE OF MAINE
DEPARTMENT OF INLAND FISHERIES AND WILDLIFE
Wildlife Division
650 State Street
Bangor, Maine 04401
Phone (207) 941-4466 Fax (207) 941-4450

WILDLIFE SCIENTIFIC COLLECTION PERMIT

Permit #: 2017 - 494

ISSUED TO: Amec Foster Wheeler Environment & Infrastruct
1075 Big Shanty Road NW
Kennesaw, GA 30189

DATES:

EFFECTIVE	EXPIRATION
4/1/2017	2/28/2018

NAME AND PHONE NUMBER(S) OF PRINCIPAL OFFICER:
Louise S Venne (770) 421-3400

THIS PERMIT INVOLVES:
- [x] Bird Banding
- [ ] Endangered or Threatened Species

LOCATION WHERE AUTHORIZED ACTIVITY MAY BE CONDUCTED:
Along the Penobscot River from Orono to the southern tip of Verona Island, Hancock County, and in Mendall Marsh, Waldo County. Also from Frenchman Bay and along the Pleasant River in Addison, Washington County.

REGION(S):
- [ ] A [x] B [x] C
- [ ] D [ ] E [x] F
- [ ] G

CONDITIONS OF PERMIT:

THIS PERMIT DOES NOT COVER SCIENTIFIC COLLECTION OF ANY FISH SPECIES.

Inland Fish: A separate permit for inland fish scientific collections can be found at http://www.maine.gov/ifw/pdf/scientificcollectorspermit06.pdf and faxed to the Fisheries Division at (207) 287-6395; or for more information, contact the Fisheries Division at (207) 287-5261.

Atlantic Salmon: If you are working on a watershed where Atlantic salmon are listed as Endangered or Threatened, you may need to acquire an additional permit from either National Marine Fisheries Service at (207) 866-7322, or U. S. Fish and Wildlife Service at (207) 827-5938.

Permittee shall comply with all applicable State and Federal laws, rules and regulations. Permittee is not authorized to take Federal trust species without the appropriate Federal permit. Permittee may not take species listed by the State of Maine as state endangered or threatened (http://www.maine.gov/ifw/wildlife/species/endangered_species/state_list.htm) or species listed as "special concern" (http://www.maine.gov/ifw/wildlife/species/endangered_species/specialconcern.htm) unless specifically permitted below.

- Authorized to capture Nelson's sparrows, Red-winged blackbirds, and Virginia rails in July to obtain blood samples. Mist nets, net gun array, and wire traps may be used. Birds will be banded.

- Authorized to capture 15 Black Ducks per location in December and January to obtain blood samples, five of which (per location), will be sacrificed for breast muscle tissue collection. Mist nets, net gun array, and wire traps may be used. Ducks will be banded. Please contact Kelsey.M.Sullivan@Maine.Gov.

See Page 2 for Continuation

SUBPERMITTEE(S) UNDER THIS PERMIT:

Stephen Myers, John Green, Emily Mastrelli, Kendra Bavor, Matthew Basler

REPORTING REQUIREMENTS:

Annually by January 31 on forms provided by the Commissioner.

SIGNATURE OF AUTHORIZED AGENCY REPRESENTATIVE: Judith Camuso

NAME AND TITLE: Judith A. Camuso, Director, Wildlife Division

DATE: 2/23/2017

STATE OF MAINE
DEPARTMENT OF INLAND FISHERIES AND WILDLIFE
Wildlife Division
650 State Street
Bangor, Maine 04401
Phone (207) 941-4466 Fax (207) 941-4450

WILDLIFE SCIENTIFIC COLLECTION PERMIT

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1075 Big Shanty Road NW
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DATES: EFFECTIVE	EXPIRATION
4/1/2017	2/28/2018

NAME AND PHONE NUMBER(S) OF PRINCIPAL OFFICER:
Louise S Venne (770) 421-3400

THIS PERMIT INVOLVES:
- [x] Bird Banding
- [ ] Endangered or Threatened Species

CONDITIONS OF PERMIT, CONTINUED:

- Spiders and terrestrial invertebrates are permitted for monitoring for the purposes of this plan.

The applicant must report the finding of any State threatened or endangered species within two business work days from capture. 207-941-4463

SUBPERMITTEE(S) UNDER THIS PERMIT, CONTINUED:

STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES
21 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0021

PAUL R. LEPAGE

PATRICK C. KELIHER
COMMISSIONER

March 30, 2017
SPECIAL LICENSE NUMBER ME 2017-38-03

Acting under the authority vested in the Commissioner of Marine Resources (DMR) by virtue of 12 M.R.S. Section 6074(8)(D), I hereby issue subject to renewal, a Special License to **JONATHAN BORDEAU** and **DANIEL WILLIAM COOKE**, of AMEC and the other individuals listed below. This Special License exempts said License holders in the course of sampling from the sections of DMR regulations listed below under Exemptions. This Special License is issued subject to the following conditions:

1. **Who:**
Jonathan Alan Bourdeau, Louise Venne, Travis McCulough Kilpatrick Otis, Kendra C Bavor, Matthew Ken Martin, David Robert Young, Julie Paige Pallozzi, Lauren Myers Tierney, Michael Howard Lounsbury, Danielle Sophia Lerner
Vessels:
Maine Registration and or Federal Documentation number: 1187977
Vessel Name: First Team
Owner: Travis Otis
Vessel Safety Issuance date: June 2, 2016

2. **What:** The purpose of the Proposed Penobscot River Monitoring is the further characterization of current conditions in the Penobscot River and Bay. Collection of fish and invertebrates for tissue sampling as ordered by US District Court. Table 1 describes the biota monitoring, including the list of species and estimated number of specimens per species.
3. **Where:** **Figure 1** shows the sample locations on the Penobscot River and Bay, and Frenchman Bay. Specimens will not be housed; all specimens to be dispatched for muscle tissue collection and whole body sampling analysis. Individuals collected and not required for analysis will be released unharmed at the location of capture. In addition, sampling will take place at Cape Jellison.
4. **When:** March 2017 through October 2017, however, sampling will not occur during the Atlantic salmon spawning season for the Penobscot River.
5. **How:** Collection will be performed using a variety of techniques, including hoop nets, baited eel pots, minnow traps, hand capture, shovel, seine nets, cast nets, and commercial traps. Hand capture will be used exclusively for blue mussels, and commercial traps will be used exclusively for lobster (See Table 1 for form of capture used for other species). For biosecurity, please refer to the attached Biosecurity and Disinfection Plan. Specimens will be temporarily stored in live well. Per discussions with DMR, specimens not required for tissue samples will be released the same day in the vicinity of capture; specimens used for tissue sampling will be stored on dry ice and transported to the laboratory for analysis. The laboratory will be responsible for final disposition of the specimens
6. **Conditions:**
   - **Marine Patrol** Division I office (west of Port Clyde), Tel: 633-9595; or the Division II office (east of Port Clyde), Tel: 667-3373, *shall* be contacted prior to the start up of collecting activities each semester to make arrangements as to the necessary frequency when to contact Marine Patrol to provide the Special License (SL) number, dates, location(s) of activities, name of special license holder, other persons in the field, and if transporting of specimens will occur who will be transporting specimens, etc.

- **Notification Requirements:** Should applicant encounter any listed Atlantic salmon, Atlantic sturgeon, and shortnose sturgeon, applicant will cease activities and contact NOAA Federal representative Jeff Murphy as soon as possible (jeff.murphy@noaa.gov).
- A report on research results or status (electronic format) shall be provided to the Department at the end of each year and prior to renewal. Research personnel of the DMR shall have access to all biological data.
- * SL's are contingent upon all vessels holding current USCG commercial fishing safety inspections [USCG CFVS].
- No marine organism authorized under this SL shall be used for human consumption.
- Any infraction of these conditions or any violation of any Marine Resources laws shall be grounds for the immediate revocation of this Special License.
- Additional conditions may be added at the discretion of the Commissioner.

This Special License ***expires on December 31, 2017*** and has ***three*** renewals.

Deirdre Gilbert

Deirdre Gilbert
For Commissioner Patrick C. Keliher

cc: Marine Patrol Divisions I & II

TABLE OF EXEMPTIONS

Exempted Species	12 M.R.S. and DMR Regulation Chapters, exemptions:
Lobster	Chapter 25.65 (Exempting collection of Lobster on Penobscot River north of closure line).
Smelt	Chapter 40.12 (Exempting collection of smelt on Penobscot River using trawl).
Marine Worms	Chatper 28.01 (Exempting collection of Marine Worms on all days of the week).
Blue Mussels	Chapter 95/96 (Exempting collection of blue mussels in closed areas).

TABLE 1

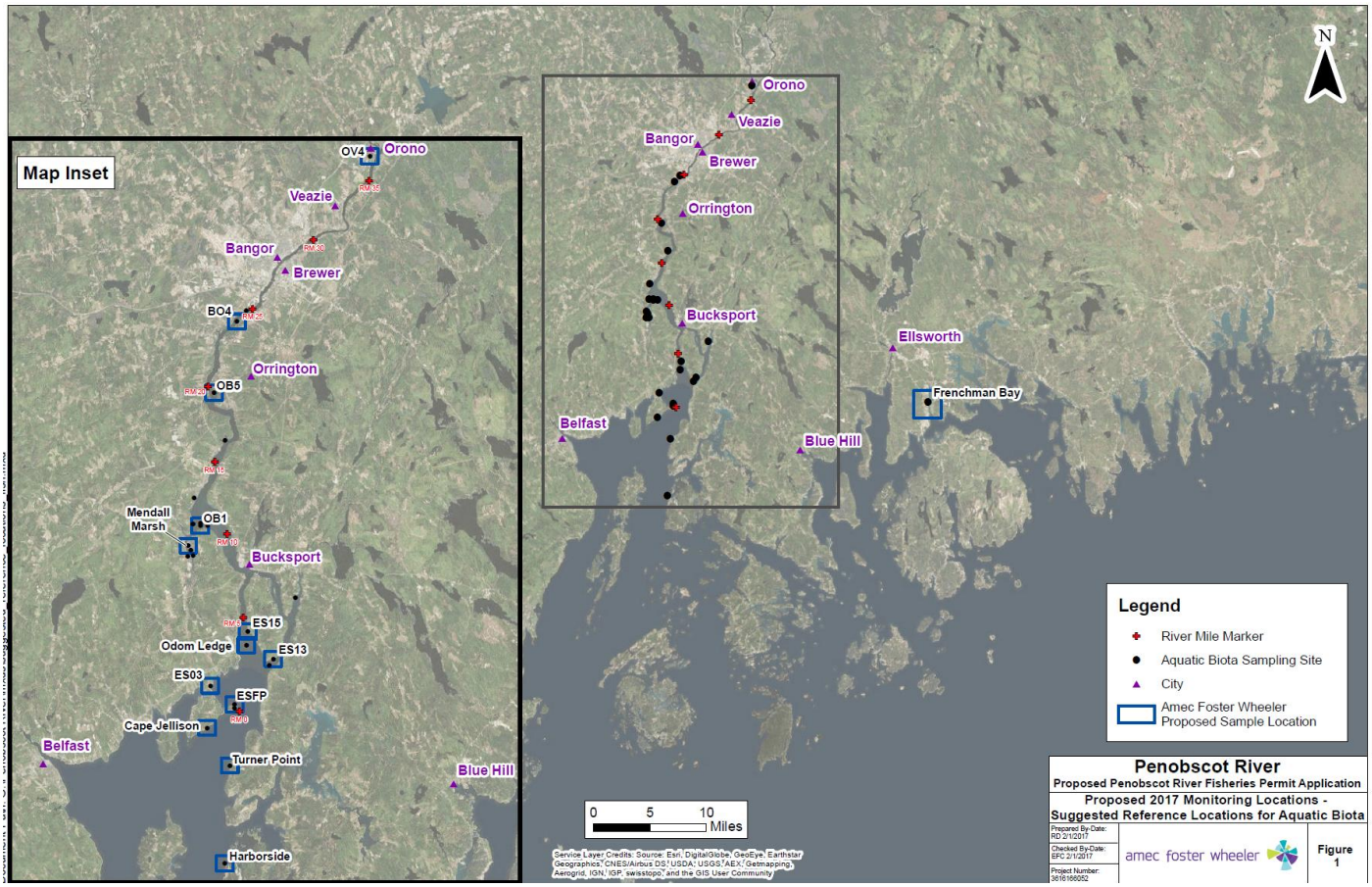
NUMBER OF FISH, SHELLFISH, AND AQUATIC INVERTEBRATE SPECIMENS REQUIRED FOR THE PROPOSED PENOBSCOT RIVER MONITORING PLAN - 2017

	Species						
	American Eel (*Anguila rostrata*)	Atlantic Tomcod (*Microgadus tomcod*)	Rainbow Smelt (*Osmerus mordax*)	Mummichog (*Fundulus heteroclitus*)	Blue Mussel (*Mytilus edulis*) or if no mussels present, soft-shell clam (*Mya arenaria*)	Lobster (*Homarus americanus*)	Polychaetes
	Collection Methods						
	baited eel pots	hoop nets, eel pots, seining	hoop nets, minnow traps, seining, trawling	minnow traps, seining	hand	commercial traps	shovel
	Sample Months						
Sample Location	March - August	September - October	September - October	July - October	September - October	September - October	March - October
Penobscot River and Bay Locations							
OV4/near Orono	20						
BO4/south of Bangor/Brewer	20	20	20	20	20		5
OB5/Winterport	20	20	20	20	20		5
OB1/River outside of Mendall Marsh	20	20	20	20	20		5
ES15/near Odom Ledge					20		
Odom Ledge	20					20	
ES13/South Verona		20	20		20	20	5
ES03					20		
ESFP/Fort Point		20	20		20		5
Cape Jellison						20	
Turner Point						20	
Harborside						20	
Mendall Marsh Location							
Mendall Marsh				20			5
Reference Location							
Frenchman Bay		20	20	20			5
Total Number of Samples	**100**	**120**	**120**	**100**	**140**	**100**	**35**

Notes:

Locations are arranged in north-to-south order within the Penobscot River and Bay Locations group.
A Maine Inland Fisheries & Wildlife Scientific Collectors Permit application will also be submitted.
Approximately 3 grams will be composited for each polychaete sample.

FIGURE 1


Map Inset
OV4
Orono
Veazie
Bangor
Brewer
BO4
Orrington
OB5
Mendall Marsh
OB1
Bucksport
ES15
Odom Ledge
ES13
ES03
ESFP
Cape Jellison
Belfast
Turner Point
Blue Hill
Harborside
Ellsworth
Frenchman Bay
N
Legend
River Mile Marker
Aquatic Biota Sampling Site
City
Amec Foster Wheeler Proposed Sample Location
0 5 10 Miles
Penobscot River
Proposed Penobscot River Fisheries Permit Application
Proposed 2017 Monitoring Locations - Suggested Reference Locations for Aquatic Biota
amec foster wheeler
Figure 1

APPENDIX B

Field Data Records

APPENDIX B-1

2017 Biota Collection Forms

Bird Field Data Records

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Environmental Analysis Request/Chain of Custody

Client:	**Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101**		
Project Name/#:	USDC Penobscot	PN #:3616166052.04A.054	
Project Manager:	Rod Pendleton	P.O. #:	
Sampler:	KB/SM	PWSID #:	
Phone #:		Quote #:	
State where samples were collected: ____ ME		For Compliance: Yes No	

	Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Matrix: Sediment	Matrix: Water: Potable	Matrix: Water: Ground	Matrix: Water: Surface	Matrix: Water: NPDES	Matrix: Other: Blood	Total # of Containers	Analyses Requested / Preservation Codes: Hg 1631e cap tubes (70µL)/ Frozen	Remarks
1	W17-N_17MN001_061917_NSS_01_BL	6/19/2017	0840	Grab								×	1	2	
2	W17-N_17MN008_061917_NSS_02_BL	6/19/2017	1200	Grab								×	1	2	Less than 1 cap tube
3	W17-N_17MN007_062917_NSS_03_BL	6/20/2017	1130	Grab								×	1	2	partials = 1 full cap tube
4	W17-N_17MN001_062017_NSS_04_BL	6/20/2017	1215	Grab								×	1	4	
5	W17-N_17MN002_062017_NSS_05_BL	6/20/2017	1225	Grab								×	1	4	
6	W17-N_17MN007_062017_NSS_06_BL	6/20/2017	1235	Grab								×	1	5	MS/ MD
7	W17-N_17MN010_062017_NSS_07_BL	6/20/2017	1440	Grab								×	1	3	
8	W17-N_17MN037_062517_NSS_08_BL	6/25/2017	0740	Grab								×	1	2	
9	W17-N_17MN037_062517_NSS_09_BL	6/25/2017	0745	Grab								×	1	2	
10	W17-N_17MN041_062517_NSS_10_BL	6/25/2017	0850	Grab								×	1	2	
11	W17-N_17MN058_062617_NSS_11_BL	6/26/2017	0640	Grab								×	1	2	
12	W17-N_17MN063_062917_NSS_12_BL	6/29/2017	0650	Grab								×	1	3	1.5 full cap tube
13	W17-N_17MN007_062017_NSS_06 _BL_MS	6/20/2017	1235	Grab								×	1	3	Use extra volume from sample 06
14	W17-N_17MN007_062017_NSS_06_BL_MD	6/20/2017	1235	Grab								×	1	3	Use extra volume from sample 06

For Lab Use Only

SF #: _____

SCR #: _____

Preservation Codes

H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

Turnaround Time Requested (TAT) (please check): Standard Rush

(Rush TAT is subject to laboratory approval and surcharges.)

Notes:

FedEx # _____

# of Coolers _____

Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report

Report and EDD to: denise.king@amecfw.com / 978-692-6633

Data Package Options (please check if required)

High Standard

EDD Required? Yes No If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt _____ °C

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Environmental Analysis Request/Chain of Custody

Client:	**Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101**		
Project Name/#:	USDC Penobscot	PN #:3616166052.04A.054	
Project Manager:	Rod Pendleton	P.O. #:	
Sampler:	KB/SM	PWSID #:	
Phone #:		Quote #:	
State where samples were collected: ____ ME		For Compliance: Yes No	

	Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Matrix: Sediment	Matrix: Water (Surface)	Matrix: Water (Ground)	Matrix: Water (Potable)	Matrix: Water (NPDES)	Matrix: Other: Blood	Total # of Containers	Analyses Requested: Hg 1631e cap tubes (70µL)/ Frozen	Preservation Codes	Remarks
1	W17-N_17MN002_061917_RWB_01_BL	6/19/2017	0830	Grab								x	1	5		MS/ MD
2	W17-N_17MN005_061917_RWB_02_BL	6/19/2017	1000	Grab								x	1	4		
3	W17-N_17MN006_061917_RWB_03_BL	6/19/2017	1130	Grab								x	1	4		
4	W17-N_17MN006_061917_RWB_04_BL	6/19/2017	1330	Grab								x	1	3		less than 1 full cap tube
5	W17-N_17MN037_062517_RWB_05_BL	6/25/2017	0650	Grab								x	1	3		
6	W17-N_17MN002_061917_RWB_01_BL_MS	6/19/2017	0830	Grab								x	1	3		Use extra volume from sample 01
7	W17-N_17MN002_061917_RWB_01_BL_MD	6/19/2017	0830	Grab								x	1	3		Use extra volume from sample 01

Preservation Codes

H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

For Lab Use Only

SF #: _____

SCR #: _____

Turnaround Time Requested (TAT) (please check): Standard Rush

(Rush TAT is subject to laboratory approval and surcharges.)

Notes:

FedEx # _____

# of Coolers _____

Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report

Report and EDD to: denise.king@amecfw.com / 978-692-6633

Data Package Options (please check if required)

High Standard

EDD Required? Yes No If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt _____ °C

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Environmental Analysis Request/Chain of Custody

(...)	ME 04101		
Project Name/#:	USDC Penobscot	PN #:3616166052.04A.054	
Project Manager:	Rod Pendleton	P.O. #:	
Sampler:	KB/EM/LV/SM	PWSID #:	
Phone #:		Quote #:	
State where samples were collected: ____ ME		For Compliance: Yes No	

Matrix

Analyses Requested

Preservation Codes

For Lab Use Only

SF #: _____

SCR #: _____

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

	Sample Identification	Collection Date	Collection Time	Grab	Composite	Soil	Sediment	Ground Water	Potable Water	Surface Water	NPDES	Other: Blood	Total # of Containers	Hg 1631e cap tubes (70µL) / Frozen						Remarks
1	MMSE-1_17MN003_062117_NSS_01_BL	6/21/2017	700	Grab								x	1	3						MS/MD
2	MMSE-1_17MN009_062117_NSS_02_BL	6/21/2017	0720	Grab								x	1	3						
3	MMSE-1_17MN007_062117_NSS_03_BL	6/21/2017	0820	Grab								x	1	2						
4	MMSE-1_17MN011_ 062117_NSS_04_BL	6/21/2017	0950	Grab								x	1	2						
5	MMSE-1_17MN010_062117_NSS_05_BL	6/21/2017	1000	Grab								x	1	2						
6	MMSE-1_17MN010_062117_NSS_06_BL	6/21/2017	1015	Grab								x	1	2						
7	MMSE-1_17MN001_062117_NSS_07_BL	6/21/2017	1030	Grab								x	1	2						
8	MMSE-1_17MN002_062117_NSS_08_BL	6/21/2017	1035	Grab								x	1	2						
9	MMSE-1_17MN002_062117_NSS_09_BL	6/21/2017	1040	Grab								x	1	2						
10	MMSE-1_17MN010_ 062117_NSS_10_BL	6/21/2017	1045	Grab								x	1	3						
11	MMSE-1_17MN011_ 062217_NSS_11_BL	6/22/2017	0820	Grab								x	1	3						
12	MMSE-1_17MN011_062217_NSS_12_BL	6/22/2017	0820	Grab								x	1	2						
13	MMSE-1_17MN018_062217_NSS_13_BL	6/22/2017	0900	Grab								x	1	2						
14	MMSE-1_17MN011_ 062217_NSS_14_BL	6/22/2017	1000	Grab								x	1	3						
15	MMSE-1_17MN018_062217_NSS_15_BL	6/22/2017	1100	Grab								x	1	3						
16	MMSE-1_17MN003_ 062117_NSS_01_BL_MS	6/21/2017	0700	Grab								x	1	3						Use extra volume from sample 01
17	MMSE-1_17MN003_062117_NSS_01_BL_MD	6/21/2017	0700	Grab								x	1	3						Use extra volume from sample 01

Turnaround Time Requested (TAT) (please check): Standard Rush

(Rush TAT is subject to laboratory approval and surcharges.)

Notes:

FedEx # _____

# of Coolers _____

Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report

Report and EDD to: denise.king@amecfw.com / 978-692-6633

Data Package Options (please check if required)

High Standard

EDD Required? Yes No If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt _____ °C

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Environmental Analysis Request/Chain of Custody

Client:	**Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101**		
Project Name/#:	USDC Penobscot	PN #:3616166052.04A.054	
Project Manager:	Rod Pendleton	P.O. #:	
Sampler:	KB/SM	PWSID #:	
Phone #:		Quote #:	
State where samples were collected: ____ ME		For Compliance: Yes No	

	Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Matrix: Water (Ground / Potable / Surface / NPDES)	Matrix: Other: Blood	Total # of Containers	Analyses Requested: Hg 1631e cap tubes (70µL)/ Frozen					Remarks
1	MMSE-1_17MN004_062117_RWB_01_BL	6/21/2017	0740	Grab				×	1	3					
2	MMSE-1_17MN044_062717_RWB_02_BL	6/27/2017	0630	Grab				×	1	2					Partial - Broken Cap tube
3	MMSE-1_17MN047_062717_RWB_03_BL	6/27/2017	0650	Grab				×	1	4					
4	MMSE-1_17MN047_062717_RWB_04_BL	6/27/2017	0700	Grab				×	1	4					MS/ MD
5	MMSE-1_17MN047_062717_RWB_05_BL	6/27/2017	1130	Grab				×	1	2					
6	MMSE-1_17MN064_062817_RWB_06_BL	6/28/2017	0820	Grab				×	1	3					
7	MMSE-1_17MN047_ 062717_RWB_04_BL_MS	6/27/2017	0700	Grab				×	1	4					Use extra volume from sample 04
8	MMSE-1_17MN047_062717_RWB_04_BL_MD	6/27/2017	0700	Grab				×	1	4					Use extra volume from sample 04

For Lab Use Only

SF #: _____

SCR #: _____

Preservation Codes

H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

Turnaround Time Requested (TAT) (please check): Standard Rush

(Rush TAT is subject to laboratory approval and surcharges.)

Notes:

FedEx # _____

# of Coolers _____

Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report

Report and EDD to: denise.king@amecfw.com / 978-692-6633

Data Package Options (please check if required)

High Standard

EDD Required? Yes No If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date / Time
Relinquished by:	Date	Time	Received by:	Date / Time
Relinquished by:	Date	Time	Received by:	Date / Time
Relinquished by:	Date	Time	Received by:	Date / Time

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt _____ °C

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Environmental Analysis Request/Chain of Custody

Client:	**Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101**		
Project Name/#:	USDC Penobscot	PN #:3616166052.04A.054	
Project Manager:	Rod Pendleton	P.O. #:	
Sampler:	EM/LV	PWSID #:	
Phone #:		Quote #:	
State where samples were collected: ____ ME		For Compliance: Yes No	

Matrix | **Analyses Requested** | **For Lab Use Only**

Preservation Codes

SF #: _____

SCR #: _____

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

	Sample Identification	Collection Date	Collection Time	Grab	Composite	Soil	Sediment	Water	Ground	Surface	Potable	NPDES	Other: Blood	Total # of Containers	Hg 1631e cap tubes (70µL)/ Frozen					Remarks
1	MMSW-C_17MN006_061917_NSS_01_BL	6/19/2017	0800	Grab									X	1	3					
2	MMSW-C_17MN008_061917_NSS_02_BL	6/19/2017	0940	Grab									X	1	3					MS/ MD
3	MMSW-C_17MN006_061917_NSS_03_BL	6/19/2017	1020	Grab									X	1	2					
4	MMSW-C_17MN009_061917_NSS_04_BL	6/19/2017	1050	Grab									X	1	2					
5	MMSW-C_17MN009_061917_NSS_05_BL	6/19/2017	1050	Grab									X	1	2					
6	MMSW-C_17MN015_062017_NSS_06_BL	6/20/2017	1040	Grab									X	1	2					
7	MMSW-C_17MN016_062017_NSS_07_BL	6/20/2017	1110	Grab									X	1	2					
8	MMSW-C_17MN015_062017_NSS_08_BL	6/20/2017	1140	Grab									X	1	2					
9	MMSW-C_17MN010_062317_NSS_09_BL	6/20/2017	1600	Grab									X	1	2					
10	MMSW-C_17MN021_062317_NSS_10_BL	6/23/2017	0705	Grab									X	1	2					
11	MMSW-C_17MN027_062317_NSS_11_BL	6/23/2017	0840	Grab									X	1	2					
12	MMSW-C_17MN026_ 062317_NSS_12_BL	6/23/2017	0920	Grab									X	1	2					
13	MMSW-C_17MN027_062317_NSS_13_BL	6/23/2017	1050	Grab									X	1	2					
14	MMSW-C_17MN027_062517_NSS_14_BL	6/25/2017	0640	Grab									X	1	2					
15	MMSW-C_17MN027_ 062517_NSS_15_BL	6/25/2017	0640	Grab									X	1	2					
16	MMSW-C_17MN008_ 061917_NSS_02_BL_MS	6/19/2017	0940	Grab									X	1	3					Use extra volume from sample 02
17	MMSW-C_17MN008_061917_NSS_02_BL_MD	6/19/2017	0940	Grab									X	1	3					Use extra volume from sample 02

Turnaround Time Requested (TAT) (please check): Standard Rush

(Rush TAT is subject to laboratory approval and surcharges.)

Notes:

FedEx # _____

# of Coolers _____

Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report

Report and EDD to: denise.king@amecfw.com / 978-692-6633

Data Package Options (please check if required)

High Standard

EDD Required? Yes No If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt _____ °C

Environmental Analysis Request/Chain of Custody

eurofins | Frontier Global Sciences

Client:	**Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101**		
Project Name/#:	USDC Penobscot	PN #:3616166052.04A.054	
Project Manager:	Rod Pendleton	P.O. #:	
Sampler:	EM/LV	PWSID #:	
Phone #:		Quote #:	
State where samples were collected: ____ ME		For Compliance: Yes No	

	Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Matrix: Sediment	Matrix: Water: Surface	Matrix: Water: Ground	Matrix: Water: Potable	Matrix: Water: NPDES	Matrix: Other: Blood	Total # of Containers	Analyses Requested: Hg 1631e cap tubes (70µL)/ Frozen	Remarks
1	MMSW-C_17MN009_061917_RWB_01_BL	6/19/2017	1020	Grab								X	1	3	
2	MMSW-C_17MN022_062317_RWB_02_BL	6/23/2017	0710	Grab								X	1	3	
3	MMSW-C_17MN020_062317_RWB_03_BL	6/23/2017	1050	Grab								X	1	3	
4	MMSW-C_17MN020_062317_RWB_04_BL	6/23/2017	1200	Grab								X	1	3	
5	MMSW-C_17MN036_062517_RWB_05_BL	6/25/2017	1120	Grab								X	1	3	MS/ MD
6	MMSW-C_17MN036_062617_RWB_06_BL	6/20/2017	0600	Grab								X	1	3	
7	MMSW-C_17MN036_062517_RWB_05_BL_MS	6/25/2017	1120	Grab								X	1	3	Use extra volume from sample 05
8	MMSW-C_17MN036_062517_RWB_05_BL_MD	6/25/2017	1120	Grab								X	1	3	Use extra volume from sample 05

Preservation Codes

H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

For Lab Use Only

SF #: _____

SCR #: _____

Turnaround Time Requested (TAT) (please check): Standard Rush

(Rush TAT is subject to laboratory approval and surcharges.)

Notes:

FedEx # _____

# of Coolers _____

Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report

Report and EDD to: denise.king@amecfw.com / 978-692-6633

Data Package Options (please check if required)

High Standard

EDD Required? Yes No If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt _____ °C

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Environmental Analysis Request/Chain of Custody

Client: **Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101**

Project Name/#: USDC Penobscot | PN #:3616166052.04A.054

Project Manager: Rod Pendleton | P.O. #:

Sampler: EM/LV | PWSID #:

Phone #: | Quote #:

State where samples were collected: ____ ME | For Compliance: Yes No

For Lab Use Only

SF #: _____

SCR #: _____

Preservation Codes

H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

	Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Matrix: Sediment	Matrix: Water (Potable / Ground / Surface / NPDES)	Matrix: Other: Blood	Total # of Containers	Analyses Requested: Hg 1631e cap tubes (70µL) / Frozen	Remarks
1	ADD-01_17MN001_0621 17_NSS_01_BL	6/21/2017	0710	Grab					×	1	2	
2	ADD-01_17MN001_062117_NSS_02_BL	6/21/2017	0700	Grab					×	1	3	
3	ADD-01_17MN001_062117_NSS_03_BL	6/21/2017	0740	Grab					×	1	3	
4	ADD-01_17MN009_062117_NSS_04_BL	6/21/2017	0735	Grab					×	1	3	MS/ MD
5	ADD-01_17MN006_062117_NSS_05_BL	6/21/2017	0820	Grab					×	1	2	
6	ADD-01_17MN004_062117_NSS_06_BL	6/21/2017	0915	Grab					×	1	2	
7	ADD-01_17MN006_062117_NSS_07_BL	6/21/2017	0910	Grab					×	1	2	
8	ADD-01_17MN006_062117_NSS_08_BL	6/21/2017	1150	Grab					×	1	2	
9	ADD-01_17MN001_062217_NSS_09_BL	6/22/2017	0640	Grab					×	1	2	
10	ADD-01_17MN007_ 062217_NSS_10_BL	6/22/2017	0720	Grab					×	1	3	
11	ADD-01_17MN002_062217_NSS_11_BL	6/22/2017	0800	Grab					×	1	2	
12	ADD-01_17MN002_062217_NSS_12_BL	6/22/2017	0840	Grab					×	1	2	
13	ADD-01_17MN011_062217_NSS_13_BL	6/22/2017	1150	Grab					×	1	2	
14	ADD-01_17MN050_062717_NSS_14_BL	6/27/2017	0815	Grab					×	1	3	partials = 2 full cap tubes
15	ADD-01_17MN051_062717_NSS_15_BL	6/27/2017	0930	Grab					×	1	3	2.5 full
16	ADD-01_17MN009_062117_NSS_04_BL_MS	6/21/2017	0735	Grab					×	1	3	
17	ADD-01_17MN009_062117_NSS_04_BL_MD	6/21/2017	0735	Grab					×	1	3	

Turnaround Time Requested (TAT) (please check): Standard Rush

(Rush TAT is subject to laboratory approval and surcharges.)

Notes:

FedEx # _____

# of Coolers _____

Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report

Report and EDD to: denise.king@amecfw.com / 978-692-6633

Data Package Options (please check if required)

High Standard

EDD Required? Yes No If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt _____ °C

Environmental Analysis Request/Chain of Custody

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Client:	**Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101**		
Project Name/#:	USDC Penobscot	PN #:3616166052.04A.054	
Project Manager:	Rod Pendleton	P.O. #:	
Sampler:	EM/LV	PWSID #:	
Phone #:		Quote #:	
State where samples were collected: ____ ME		For Compliance: Yes No	

	Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Matrix: Sediment	Matrix: Water: Surface	Matrix: Water: Ground	Matrix: Water: Potable	Matrix: Water: NPDES	Matrix: Other: Blood	Total # of Containers	Analyses Requested: Hg 1631e cap tubes (70µL)/ Frozen	Remarks
1	MMSW-C_17MN009_061917_RWB_01_BL	6/19/2017	1020	Grab								×	1	3	
2	MMSW-C_17MN022_062317_RWB_02_BL	6/23/2017	0710	Grab								×	1	3	
3	MMSW-C_17MN020_062317_RWB_03_BL	6/23/2017	1050	Grab								×	1	3	
4	MMSW-C_17MN020_062317_RWB_04_BL	6/23/2017	1200	Grab								×	1	3	
5	MMSW-C_17MN036_062517_RWB_05_BL	6/25/2017	1120	Grab								×	1	3	MS/ MD
6	MMSW-C_17MN036_062617_RWB_06_BL	6/20/2017	0600	Grab								×	1	3	
7	MMSW-C_17MN036_062517_RWB_05_BL_MS	6/25/2017	1120	Grab								×	1	3	Use extra volume from sample 05
8	MMSW-C_17MN036_062517_RWB_05_BL_MD	6/25/2017	1120	Grab								×	1	3	Use extra volume from sample 05

Analyses Requested

Preservation Codes

For Lab Use Only

SF #: _____

SCR #: _____

Preservation Codes

H = HCl T = Thiosulfate

N = HNO_3 B = NaOH

S = H_2SO_4 P = H_3PO_4

O = Other

Turnaround Time Requested (TAT) (please check): Standard Rush

(Rush TAT is subject to laboratory approval and surcharges.)

Notes:

FedEx # _____

# of Coolers _____

Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report

Report and EDD to: denise.king@amecfw.com / 978-692-6633

Data Package Options (please check if required)

High Standard

EDD Required? Yes No If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt _____ °C

eurofins | Frontier Global Sciences

Environmental Analysis Request/Chain of Custody

Client: **Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101**

Project Name/#: USDC Penobscot | PN #:3616166052.04A.054

Project Manager: Rod Pendleton | P.O. #:

Sampler: EM/LV | PWSID #:

Phone #: | Quote #:

State where samples were collected: ____ ME | For Compliance: Yes No

For Lab Use Only

SF #: _____

SCR #: _____

Preservation Codes

H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

	Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Matrix: Sediment	Matrix: Water (Potable / Ground / Surface / NPDES)	Matrix: Other: Blood	Total # of Containers	Analyses Requested: Hg 1631e cap tubes (70µL) / Frozen	Remarks
1	ADD-01_17MN001_0621 17_NSS_01_BL	6/21/2017	0710	Grab					×	1	2	
2	ADD-01_17MN001_062117_NSS_02_BL	6/21/2017	0700	Grab					×	1	3	
3	ADD-01_17MN001_062117_NSS_03_BL	6/21/2017	0740	Grab					×	1	3	
4	ADD-01_17MN009_062117_NSS_04_BL	6/21/2017	0735	Grab					×	1	3	MS/ MD
5	ADD-01_17MN006_062117_NSS_05_BL	6/21/2017	0820	Grab					×	1	2	
6	ADD-01_17MN004_062117_NSS_06_BL	6/21/2017	0915	Grab					×	1	2	
7	ADD-01_17MN006_062117_NSS_07_BL	6/21/2017	0910	Grab					×	1	2	
8	ADD-01_17MN006_062117_NSS_08_BL	6/21/2017	1150	Grab					×	1	2	
9	ADD-01_17MN001_062217_NSS_09_BL	6/22/2017	0640	Grab					×	1	2	
10	ADD-01_17MN007_ 062217_NSS_10_BL	6/22/2017	0720	Grab					×	1	3	
11	ADD-01_17MN002_062217_NSS_11_BL	6/22/2017	0800	Grab					×	1	2	
12	ADD-01_17MN002_062217_NSS_12_BL	6/22/2017	0840	Grab					×	1	2	
13	ADD-01_17MN011_062217_NSS_13_BL	6/22/2017	1150	Grab					×	1	2	
14	ADD-01_17MN050_062717_NSS_14_BL	6/27/2017	0815	Grab					×	1	3	partials = 2 full cap tubes
15	ADD-01_17MN051_062717_NSS_15_BL	6/27/2017	0930	Grab					×	1	3	2.5 full
16	ADD-01_17MN009_062117_NSS_04_BL_MS	6/21/2017	0735	Grab					×	1	3	
17	ADD-01_17MN009_062117_NSS_04_BL_MD	6/21/2017	0735	Grab					×	1	3	

Turnaround Time Requested (TAT) (please check): Standard Rush

(Rush TAT is subject to laboratory approval and surcharges.)

Notes:

FedEx # _____

# of Coolers _____

Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report

Report and EDD to: denise.king@amecfw.com / 978-692-6633

Data Package Options (please check if required)

High Standard

EDD Required? Yes No If yes, format: _____

Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt _____ °C

amec foster wheeler

Bird Banding and Blood Sample Collection

Project Name: USDC Penobscot River **Project Number:** 3616166052 **Sampling Team:** MCB, SJM, VM **Collection Method:** Mist Net

Band Number (9 digits)	Band Size	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age[1]	How Aged[2]	Sex[3]	How Sexed[4]	Fat[5]	Body Molt[6]	Wing Chord (mm)	Tail Length (mm)	Weight (g)	Skull[7]	Brood Patch[8]	Cloacal Prot[9]	Bander Initials	Mist Net ID	Sample ID	# Capillary Tubes	Notes
251144928	1	NESP	062117	ADD-01	06:40	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	0 = None	0 = None	53.0	45.0	17.9	NA	3 = Heavy	NA	SJM	17MN1	ADD-01 _ 17MN1 _ 062117 _NSS_ 01 _BL	2	Full
185140356	1	NESP	062117	ADD-01	06:40	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	1 = Trace	58.0	48.0	19.8	NA	0 = None	3 = Large	SJM	17MN1	ADD-01 _ 17MN1 _ 062117 _NSS_ 02 _BL	2	2.25 tubes
185140353	1	NESP	062117	ADD-01	07:20	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	59.0	51.0	20.3	NA	0 = None	3 = Large	SJM	17MN1	ADD-01 _ 17MN1 _ 062117 _NSS_ 03 _BL	3	1 full, 2 partial
251144929	1	NESP	062117	ADD-01	07:10	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	49.0	18.1	NA	0 = None	3 = Large	SJM	17MN9	ADD-01 _ 17MN9 _ 062117 _NSS_ 04 _BL	3	Full
251144930	1	NESP	062117	ADD-01	07:40	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	56.0	47.0	18.8	NA	0 = None	3 = Large	SJM	17MN6	ADD-01 _ 17MN6 _ 062117 _NSS_ 05 _BL	2	Full
251144931	1	SAVS	062117	ADD-01	08:30	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	66.0	49.0	21.0	NA	0 = None	3 = Large	SJM	17MN1	NA	0	
185140344	1	NESP	062117	ADD-01	08:40	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	49.0	20.2	NA	0 = None	3 = Large	SJM	17MN4	ADD-01 _ 17MN4 _ 062117 _NSS_ 06 _BL	2	Full
251144932	1	NESP	062117	ADD-01	08:40	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	48.0	19.3	NA	0 = None	3 = Large	SJM	17MN6	ADD-01 _ 17MN6 _ 062117 _NSS_ 07 _BL	2	Full
251144933	1	NESP	062117	ADD-01	11:30	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	58.0	49.0	19.3	NA	0 = None	3 = Large	SJM	17MN3	ADD-01 _ 17MN3 _ 062117 _NSS_ 08 _BL	2	Full
192024154	1	COYE	062117	ADD-01	12:20	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	0 = None	53.0	50.0	11.4	NA	0 = None	3 = Large	SJM	17MN4	NA	0	

BANDING INFORMATION

AGE[1]	HOW AGED[2]	SEX[3]	HOW SEXED[4]	FAT[5]	BODY MOLT[6]	SKULL[7]	BR PATCH[8]	CLOACAL PROTUBERANCE[9]
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled	
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting	
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete		
0 = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible		
	L = Molt Limits Present		Y = Culmen					
	N = Molt Limits Absent		Z = Multiple Measurements					
	P = Primary covert shape and/or primary feather shape/wear		X = Not attempted					
	T = Tail Shape and Wear							
	X = Not Attempted							

BIRD BLOOD SAMPLING INFORMATION

Requested Analyses:	Quality Control Questions:		Notes:
Analytes: Total Hg	Preservative at Collection: Dry Ice		Bird sampling was conducted according to the following SOPs included in the QAPP; SOP S-8 Bird Mist Netting SOP S-9 Songbird Sampling
Methods: 1631e	Nelson's Sparrow	NSS QC Collected: MS/MSD	
Container: 70 ul Capillary Tube		NSS MS/MSD Source: 04	
# Containers: 3	Red-Winged Black Bird	RWB QC Collected: None	
Preservative: 4°C		RWB MS/MSD Source: NA	

Technician name (Print): Matt Basler QA/QC by:

Technician Signature: Date:

Bird Banding and Blood Sample Collection

Project Name: USDC Penobscot River **Project Number:** 3616166052 **Sampling Team:** MCB, SJM, VM **Collection Method:** Mist Net

Band Number (9 digits)	Band Size	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age[1]	How Aged[2]	Sex[3]	How Sexed[4]	Fat[5]	Body Molt[6]	Wing Chord (mm)	Tail Length (mm)	Weight (g)	Skull[7]	Brood Patch[8]	Cloacal Prot[9]	Bander Initials	Mist Net ID	Sample ID	# Capillary Tubes	Notes
251144934	1	NESP	062217	ADD-01	06:20	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	55.0	48.0	19.9	NA	NA	3 = Large	SJM	17MN001	ADD-01 _ 17MN001 _ 062217 _NSS_ 09 _BL	2	Full
251144935	1	NESP	062217	ADD-01	07:00	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	51.0	20.1	NA	NA	3 = Large	SJM	17MN007	ADD-01 _ 17MN007 _ 062217 _NSS_ 10 _BL	2	Full
192024155	0	COYE	062217	ADD-01	07:00	1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	1 = Trace	0 = None	52.0	43.0	9.8	NA	NA	3 = Large	SJM	17MN007	NA	0	
251144936	1	NESP	062217	ADD-01	07:40	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	47.0	17.3	NA	NA	3 = Large	SJM	17MN002	ADD-01 _ 17MN002 _ 062217 _NSS_ 11 _BL	2	Full
251144928	1	NESP	062217	ADD-01	07:40	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	0 = None	0 = None	53.0	46.0	18.0	NA	4 = Wrinkled	NA	SJM	17MN001	NA	0	
251118754	1	NESP	062217	ADD-01	08:20	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	58.0	50.0	18.5	NA	NA	3 = Large	SJM	17MN002	ADD-01 _ 17MN002 _ 062217 _NSS_ 12 _BL	2	1 full, other 2/3 full
251144937	1	SWSP	062217	ADD-01	08:50	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	58.0	60.0	18.8	NA	NA	3 = Large	SJM	17MN010	NA	0	
251144938	1	NESP	062217	ADD-01	11:20	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	0 = None	0 = None	53.0	51.0	18.3	NA	4 = Wrinkled	NA	SJM	17MN011	ADD-01 _ 17MN011 _ 062217 _NSS_ 13 _BL	2	Full
251144939	1	SWSP	062217	ADD-01	12:10	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	1 = Trace	0 = None	56.0	54.0	17.2	NA	4 = Wrinkled	NA	SJM	17MN010	NA	0	
025144940	1	SWSP	062217	ADD-01	13:10	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	58.0	60.0	18.0	NA	NA	3 = Large	MCB	17MN013	NA	0	
025144933	1	NESP	062217	ADD-01	14:10	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	58.0	49.0	18.5	NA	NA	3 = Large	SJM	17MN012	NA	0	

BANDING INFORMATION

AGE[1]	HOW AGED[2]	SEX[3]	HOW SEXED[4]	FAT[5]	BODY MOLT[6]	SKULL[7]	BR PATCH[8]	CLOACAL PROTUBERANCE[9]
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled	
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting	
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete		
0 = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible		
	L = Molt Limits Present		Y = Culmen					
	N = Molt Limits Absent		Z = Multiple Measurements					
	P = Primary covert shape and/or primary feather shape/wear		X = Not attempted					
	T = Tail Shape and Wear							
	X = Not Attempted							

BIRD BLOOD SAMPLING INFORMATION

Requested Analyses:	Quality Control Questions:		Notes:
Analytes: Total Hg	Preservative at Collection: Dry Ice		Bird sampling was conducted according to the following SOPs included in the QAPP; SOP S-8 Bird Mist Netting SOP S-9 Songbird Sampling
Methods: 1631e	Nelson's Sparrow	NSS QC Collected: None	
Container: 70 ul Capillary Tube		NSS MS/MSD Source: NA	
# Containers: 3	Red-Winged Black Bird	RWB QC Collected: None	
Preservative: 4°C		RWB MS/MSD Source: NA	

Technician name (Print): Matt Basler QA/QC by:

Technician Signature: Date:

Bird Banding and Blood Sample Collection

Project Name: USDC Penobscot River **Project Number:** 3616166052 **Sampling Team:** EMM, MCB, VM **Collection Method:** Mist Net

Band Number (9 digits)	Band Size	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age[1]	How Aged[2]	Sex[3]	How Sexed[4]	Fat[5]	Body Molt[6]	Wing Chord (mm)	Tail Length (mm)	Weight (g)	Skull[7]	Brood Patch[8]	Cloacal Prot[9]	Bander Initials	Mist Net ID	Sample ID	# Capillary Tubes	Notes
185140356	1	NESP	062717	ADD-01	08:15	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	56.0	49.0	16.9	NA	NA	3 = Large	EMM	17MN050	ADD-01 _ 17MN050 _ 062717 _NSS_ 14 _BL	3	1 full, 2 partials
272112449	1	NESP	062717	ADD-01	09:30	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	1 = Trace	0 = None	52.0	48.0	18.3	NA	2 = Vascular	NA	EMM	17MN051	ADD-01 _ 17MN051 _ 062717 _NSS_ 15 _BL	3	1 full, 2 partials
251145027	1	NESP	062717	ADD-01	09:30	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	56.0	50.0	17.2	0 = None	NA	3 = Large	EMM	17MN050	NA	0	

BANDING INFORMATION

AGE[1]	HOW AGED[2]	SEX[3]	HOW SEXED[4]	FAT[5]	BODY MOLT[6]	SKULL[7]	BR PATCH[8]	CLOACAL PROTUBERANCE[9]
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled	
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting	
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete		
0 = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible		
	L = Molt Limits Present		Y = Culmen					
	N = Molt Limits Absent		Z = Multiple Measurements					
	P = Primary covert shape and/or primary feather shape/wear		X = Not attempted					
	T = Tail Shape and Wear							
	X = Not Attempted							

BIRD BLOOD SAMPLING INFORMATION

Requested Analyses:
- **Analytes:** Total Hg
- **Methods:** 1631e
- **Container:** 70 ul Capillary Tube
- **# Containers:** 3
- **Preservative:** 4°C

Quality Control Questions:

Preservative at Collection: Dry Ice

Nelson's Sparrow	NSS QC Collected:	None
	NSS MS/MSD Source:	NA
Red-Winged Black Bird	RWB QC Collected:	None
	RWB MS/MSD Source:	NA

Notes:

Bird sampling was conducted according to the following SOPs included in the QAPP;
SOP S-8 Bird Mist Netting
SOP S-9 Songbird Sampling

Technician name (Print): Matt Basler QA/QC by:

Technician Signature: Matt Basler Date:

amec foster wheeler

Bird Banding and Blood Sample Collection

Project Name: USDC Penobscot River **Project Number:** 3616166052 **Sampling Team:** EMM, KCB, LSV **Collection Method:** Mist Net

Band Number (9 digits)	Band Size	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age[1]	How Aged[2]	Sex[3]	How Sexed[4]	Fat[5]	Body Molt[6]	Wing Chord (mm)	Tail Length (mm)	Weight (g)	Skull[7]	Brood Patch[8]	Cloacal Prot[9]	Bander Initials	Mist Net ID	Sample ID	# Capillary Tubes	Notes
272112429	1	NESP	062117	MMSE-1	07:00	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	0 = None	0 = None	55.0	47.0	16.2	NA	2 = Vascular	NA	EMM	17MN003	MMSE-1 _ 17MN003 _ 062117 _NSS_ 01 _BL	3	Egg in oviduct,MSMD
272112430	1	NESP	062117	MMSE-1	07:20	1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	58.0	50.0	17.4	NA	NA	3 = Large	EMM	17MN009	MMSE-1 _ 17MN009 _ 062117 _NSS_ 02 _BL	3	
270154104	1A	RWBL	062117	MMSE-1	07:40	5 = SY	1 = Adult Plumage	F = Female	1 = Adult Plumage	1 = Trace	0 = None	96.0	70.0	43.4	NA	1 = Smooth	NA	EMM	17MN004	MMSE-1 _ 17MN004 _ 062117 _RWB_ 01 _BL	3	
272112431	1	NESP	062117	MMSE-1	08:20	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	58.0	49.0	16.9	NA	NA	3 = Large	EMM	17MN007	MMSE-1 _ 17MN007 _ 062117 _NSS_ 03 _BL	2	
272112432	1	NESP	062117	MMSE-1	09:50	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	0 = None	56.0	47.0	15.5	NA	NA	3 = Large	LSV	17MN010	MMSE-1 _ 17MN010 _ 062117 _NSS_ 04 _BL	2	
272112433	1	NESP	062117	MMSE-1	10:00	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	0 = None	58.0	49.0	16.3	NA	NA	3 = Large	LSV	17MN010	MMSE-1 _ 17MN010 _ 062117 _NSS_ 05 _BL	2	
272112434	1	NESP	062117	MMSE-1	10:15	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	2 = Light	0 = None	54.0	45.0	17.1	NA	2 = Vascular	NA	EMM	17MN001	MMSE-1 _ 17MN001 _ 062117 _NSS_ 06 _BL	2	
272112435	1	NESP	062117	MMSE-1	10:30	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	0 = None	0 = None	55.0	48.0	15.0	NA	2 = Vascular	NA	EMM	17MN002	MMSE-1 _ 17MN002 _ 062117 _NSS_ 07 _BL	2	
272112436	1	NESP	062117	MMSE-1	10:35	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	2 = Light	0 = None	57.0	46.0	17.8	NA	2 = Vascular	NA	EMM	17MN002	MMSE-1 _ 17MN002 _ 062117 _NSS_ 08 _BL	2	
272112437	1	NESP	062117	MMSE-1	10:40	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	58.0	47.0	17.7	NA	NA	3 = Large	EMM	17MN010	MMSE-1 _ 17MN010 _ 062117 _NSS_ 09 _BL	2	
277114801	1B	SAVS	062117	MMSE-1	07:30	2 = HY	N = Molt Limits Absent	U = Unknown	X = Not attempted	4 = Filled	2 = Light	64.0	48.0	18.9	NA			EMM	17MN009	NA	0	
185140322	1	NESP	062117	MMSE-1	10:45	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	56.0	50.0	17.0	NA	NA	3 = Large	EMM	17MN010	MMSE-1 _ 17MN010 _ 062117 10 _BL	2	

BANDING INFORMATION

AGE[1]	HOW AGED[2]	SEX[3]	HOW SEXED[4]	FAT[5]	BODY MOLT[6]	SKULL[7]	BR PATCH[8]	CLOACAL PROTUBERANCE[9]
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled	
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting	
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete		
0 = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible		
	L = Molt Limits Present		Y = Culmen					
	N = Molt Limits Absent		Z = Multiple Measurements					
	P = Primary covert shape and/or primary feather shape/wear		X = Not attempted					
	T = Tail Shape and Wear							
	X = Not Attempted							

BIRD BLOOD SAMPLING INFORMATION

Requested Analyses:	Quality Control Questions:		Notes:
Analytes: Total Hg	Preservative at Collection: Dry Ice		Bird sampling was conducted according to the following SOPs included in the QAPP; SOP S-8 Bird Mist Netting SOP S-9 Songbird Sampling
Methods: 1631e	Nelson's Sparrow	NSS QC Collected: MS/MSD NSS MS/MSD Source: 01	
Container: 70 ul Capillary Tube			
# Containers: 3	Red-Winged Black Bird	RWB QC Collected: MS/MSD RWB MS/MSD Source: 01	
Preservative: 4°C			

Technician name (Print): Kendra Bavor QA/QC by:

Technician Signature: Date:

amec foster wheeler

Bird Banding and Blood Sample Collection

Project Name: USDC Penobscot River **Project Number:** 3616166052 **Sampling Team:** EMM, LSV **Collection Method:** Mist Net

Band Number (9 digits)	Band Size	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age[1]	How Aged[2]	Sex[3]	How Sexed[4]	Fat[5]	Body Molt[6]	Wing Chord (mm)	Tail Length (mm)	Weight (g)	Skull[7]	Brood Patch[8]	Cloacal Prot[9]	Bander Initials	Mist Net ID	Sample ID	# Capillary Tubes	Notes
272112438	1	NESP	062217	MMSE-1	08:20	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	0 = None	58.0	50.0	16.6	NA	NA	3 = Large	EMM	17MN019	MMSE-1 _ 17MN019 _ 062217 _NSS_ 11 _BL	3	2.25 Captubes
272112439	1	NESP	062217	MMSE-1	08:20	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	49.0	16.8	NA	NA	3 = Large	EMM	17MN011	MMSE-1 _ 17MN011 _ 062217 _NSS_ 12 _BL	3	2.25 captubes
272112440	1	NESP	062217	MMSE-1	09:00	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	51.0	16.8	NA	NA	3 = Large	EMM	17MN018	MMSE-1 _ 17MN018 _ 062217 _NSS_ 13 _BL	2	1.5 captubes
272112441	1	TRES	062217	MMSE-1	09:00	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	1 = Trace	0 = None	116.0	55.0	17.9	NA	4 = Wrinkled	NA	EMM	17MN015	NA	0	
251145036	1	NESP	062217	MMSE-1	10:00	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	61.0	53.0	17.7	NA	NA	3 = Large	EMM	17MN011	MMSE-1 _ 17MN011 _ 062217 _NSS_ 14 _BL	2	Full
272112442	1	NESP	062217	MMSE-1	11:00	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	0 = None	0 = None	54.0	48.0	16.2	NA	3 = Heavy	NA	EMM	17MN008	MMSE-1 _ 17MN008 _ 062217 _NSS_ 15 _BL	3	
272112443	1	NESP	062217	MMSE-1	12:40	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	2 = Light	0 = None	54.0	46.0	17.2	NA	3 = Heavy	NA	EMM	17MN016	NA	0	Bird #16 no needed
272112432	1	NESP	062217	MMSE-1	08:20	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	56.0	47.0	17.7	NA	NA	3 = Large	EMM	17MN011	NA	0	Recap yesterday

BANDING INFORMATION

AGE[1]	HOW AGED[2]	SEX[3]	HOW SEXED[4]	FAT[5]	BODY MOLT[6]	SKULL[7]	BR PATCH[8]	CLOACAL PROTUBERANCE[9]
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled	
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting	
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete		
0 = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible		
	L = Molt Limits Present		Y = Culmen					
	N = Molt Limits Absent		Z = Multiple Measurements					
	P = Primary covert shape and/or primary feather shape/wear		X = Not attempted					
	T = Tail Shape and Wear							
	X = Not Attempted							

BIRD BLOOD SAMPLING INFORMATION

Requested Analyses:	Quality Control Questions:		Notes:
Analytes: Total Hg	Preservative at Collection: Wet Ice		Bird sampling was conducted according to the following SOPs included in the QAPP; SOP S-8 Bird Mist Netting SOP S-9 Songbird Sampling
Methods: 1631e	Nelson's Sparrow	NSS QC Collected: MS/MSD	
Container: 70 ul Capillary Tube		NSS MS/MSD Source:	
# Containers: 3	Red-Winged Black Bird	RWB QC Collected: MS/MSD	
Preservative: 4°C		RWB MS/MSD Source:	

Technician name (Print): Emily Mastrelli QA/QC by:

Technician Signature: Date:

amec foster wheeler

Bird Banding and Blood Sample Collection

Project Name: USDC Penobscot River **Project Number:** 3616166052 **Sampling Team:** KCB, LSV, SJM **Collection Method:** Mist Net

Band Number (9 digits)	Band Size	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age[1]	How Aged[2]	Sex[3]	How Sexed[4]	Fat[5]	Body Molt[6]	Wing Chord (mm)	Tail Length (mm)	Weight (g)	Skull[7]	Brood Patch[8]	Cloacal Prot[9]	Bander Initials	Mist Net ID	Sample ID	# Capillary Tubes	Notes
099177946	1A	RWBL	062717	MMSE-1	06:30	5 = SY	2 = Juvenal Plumage	F = Female	B = Brood Patch	0 = None	0 = None	95.0	70.0	39.9	NA	4 = Wrinkled	NA	SJM	17MN044	MMSE-1 _ 17MN044 _ 062717 _RWB_ 02 _BL	3	Not full tubes
185140321	1	NESP	062717	MMSE-1	06:30	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	59.0	50.0	17.9	NA	NA	3 = Large	SJM	17MN046	NA	0	
251144951	1	SAVS	062717	MMSE-1	06:30	5 = SY	L = Molt Limits Present	M = Male	C = Cloacal Protuberance	0 = None	0 = None	67.0	51.0	19.2	NA	NA	3 = Large	SJM	17MN047	NA	0	
176146153	1B	SOSP	062717	MMSE-1	06:30	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	63.0	64.0	20.2	NA	NA	3 = Large	SJM	17MN047	NA	0	
176146154	1B	SOSP	062717	MMSE-1	06:30	6 = ASY	N = Molt Limits Absent	F = Female	B = Brood Patch	1 = Trace	0 = None	63.0	65.0	25.3	NA	3 = Heavy	NA	SJM	17MN047	NA	0	
176146155	1B	SOSP	062717	MMSE-1	07:00	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	64.0	66.0	20.3	NA	NA	3 = Large	SJM	17MN049	NA	0	
251144952	1	NESP	062717	MMSE-1	07:00	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	50.0	17.3	NA	NA	3 = Large	SJM	17MN049	NA	0	
251144953	1	NESP	062717	MMSE-1	07:00	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	0 = None	56.0	48.0	19.9	NA	3 = Heavy	NA	SJM	17MN049	NA	0	
251144954	1	NESP	062717	MMSE-1	07:00	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	58.0	47.0	17.0	NA	NA	3 = Large	SJM	17MN049	NA	0	
092222678	2	RWBL	062717	MMSE-1	07:00	5 = SY	2 = Juvenal Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	117.0	84.0	60.2	NA	NA	NA	SJM	17MN075	MMSE-1 _ 17MN075 _ 062717 _RWB_ 04 _BL	4	MS MD
092222679	2	RWBL	062717	MMSE-1	06:50	6 = ASY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	119.0	89.0	61.0	NA	NA	3 = Large	SJM	17MN045	MMSE-1 _ 17MN045 _ 062717 _RWB_ 03 _BL	4	Broken & partial full
251144955	1	NESP	062717	MMSE-1	07:40	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	49.0	16.1	NA	NA	3 = Large	SJM	17MN044	NA	0	
251144956	1	NESP	062717	MMSE-1	07:40	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	55.0	48.0		NA	NA	3 = Large	KCB	17MN046	NA	0	Flew before weight
251144957	1	NESP	062717	MMSE-1	08:30	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	49.0	17.2	NA	NA	3 = Large	KCB	17MN043	NA	0	
251144958	1	NESP	062717	MMSE-1	09:10	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	55.0	47.0	16.8	NA	NA	3 = Large	LSV	17MN041	NA	0	
251144959	1	NESP	062717	MMSE-1	09:30	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	45.0	17.0	NA	NA	3 = Large	KCB	17MN050	NA	0	
251144960	1	NESP	062717	MMSE-1	10:00	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	56.0	46.0	16.6	NA	NA	3 = Large	KCB	17MN046	NA	0	
251144961	1	SAVS	062717	MMSE-1	11:30	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	0 = None	65.0	50.0	18.0	NA	NA	3 = Large	LSV	17MN052	NA	0	
09177947	1A	RWBL	062717	MMSE-1	11:30	5 = SY	2 = Juvenal Plumage	F = Female	B = Brood Patch	0 = None	0 = None	96.0	67.0	43.4	NA	4 = Wrinkled	NA	SJM	17MN047	MMSE-1 _ 17MN047 _ 062717 _RWB_ 05 _BL	2	full

BANDING INFORMATION

AGE[1]	HOW AGED[2]	SEX[3]	HOW SEXED[4]	FAT[5]	BODY MOLT[6]	SKULL[7]	BR PATCH[8]	CLOACAL PROTUBERANCE[9]
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled	
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting	
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete		
0 = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible		
	L = Molt Limits Present		Y = Culmen					
	N = Molt Limits Absent		Z = Multiple Measurements					
	P = Primary covert shape and/or primary feather shape/wear		X = Not attempted					
	T = Tail Shape and Wear							
	X = Not Attempted							

BIRD BLOOD SAMPLING INFORMATION

Requested Analyses:	Quality Control Questions:		Notes:
Analytes: Total Hg	Preservative at Collection: Wet Ice		Bird sampling was conducted according to the following SOPs included in the QAPP; SOP S-8 Bird Mist Netting SOP S-9 Songbird Sampling
Methods: 1631e	Nelson's Sparrow	NSS QC Collected: MS/MSD	
Container: 70 ul Capillary Tube		NSS MS/MSD Source: 01	
# Containers: 3	Red-Winged Black Bird	RWB QC Collected: MS/MSD	
Preservative: 4°C		RWB MS/MSD Source: 04	

Technician name (Print): Kendra Bavor QA/QC by:

Technician Signature: Date:

amec foster wheeler

Bird Banding and Blood Sample Collection

Project Name: USDC Penobscot River **Project Number:** 3616166052 **Sampling Team:** EMM, LSV, MCB, SJM, VM **Collection Method:** Mist Net

Band Number (9 digits)	Band Size	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age[1]	How Aged[2]	Sex[3]	How Sexed[4]	Fat[5]	Body Molt[6]	Wing Chord (mm)	Tail Length (mm)	Weight (g)	Skull[7]	Brood Patch[8]	Cloacal Prot[9]	Bander Initials	Mist Net ID	Sample ID	# Capillary Tubes	Notes
251144962	1	SAVS	062817	MMSE-1	06:10	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	68.0	48.0	18.2	NA	NA	3 = Large	EMM	17MN064	NA	0	
251144966	1	NESP	062817	MMSE-1	07:20	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	58.0	48.0	17.0	NA	NA	3 = Large	EMM	17MN077	NA	0	
092222680	2	RWBL	062817	MMSE-1	08:20	5 = SY	2 = Juvenal Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	0 = None	113.0	81.0	62.2	NA	NA	2 = Medium	EMM	17MN064	MMSE-1 _ 17MN064 _ 062817 _RWB_ 06 _BL	3	Full
251144971	1	NESP	062817	MMSE-1	08:50	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	0 = None	0 = None	54.0	49.0	18.3	NA	4 = Wrinkled	NA	MCB	17MN073	NA	0	
235107507	1	NESP	062817	MMSE-1	10:00	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	50.0	18.1	NA	NA	3 = Large	SJM	17MN072	NA	0	

BANDING INFORMATION

AGE[1]	HOW AGED[2]	SEX[3]	HOW SEXED[4]	FAT[5]	BODY MOLT[6]	SKULL[7]	BR PATCH[8]	CLOACAL PROTUBERANCE[9]
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled	
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting	
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete		
0 = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible		
	L = Molt Limits Present		Y = Culmen					
	N = Molt Limits Absent		Z = Multiple Measurements					
	P = Primary covert shape and/or primary feather shape/wear		X = Not attempted					
	T = Tail Shape and Wear							
	X = Not Attempted							

BIRD BLOOD SAMPLING INFORMATION

Requested Analyses:	Quality Control Questions:		Notes:
Analytes: Total Hg	Preservative at Collection: Dry Ice		Bird sampling was conducted according to the following SOPs included in the QAPP; SOP S-8 Bird Mist Netting SOP S-9 Songbird Sampling
Methods: 1631e	Nelson's Sparrow	NSS QC Collected: None	
Container: 70 ul Capillary Tube		NSS MS/MSD Source: NA	
# Containers: 3	Red-Winged Black Bird	RWB QC Collected: None	
Preservative: 4°C		RWB MS/MSD Source: NA	

Technician name (Print): Matt Basler QA/QC by:

Technician Signature: Date:

Bird Banding and Blood Sample Collection

Project Name: USDC Penobscot River **Project Number:** 3616166052 **Sampling Team:** EMM, LSV, MCB **Collection Method:** Mist Net

Band Number (9 digits)	Band Size	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age[1]	How Aged[2]	Sex[3]	How Sexed[4]	Fat[5]	Body Molt[6]	Wing Chord (mm)	Tail Length (mm)	Weight (g)	Skull[7]	Brood Patch[8]	Cloacal Prot[9]	Bander Initials	Mist Net ID	Sample ID	# Capillary Tubes	Notes
272112420	1	NESP	061917	MMSW-C	08:00	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	52.0	49.0	16.8	NA	NA	3 = Large	EMM	17MN6	MMSW-C _ 17MN6 _ 061917 _NSS_ 01 _BL	3	1 good, 2 partials
251145017	1	NESP	061917	MMSW-C	09:40	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	46.0	16.5	NA	NA	3 = Large	LSV	17MN8	MMSW-C _ 17MN8 _ 061917 _NSS_ 02 _BL	3	All full, MSMSD
270154102	1a	RWBL	061917	MMSW-C	10:20	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	0 = None	0 = None	95.0	70.0	37.2	NA	4 = Wrinkled	NA	EMM	17MN9	MMSW-C _ 17MN9 _ 061917 _RWB_ 01 _BL	3	2 full, 1 partial
272112421	1	NESP	061917	MMSW-C	10:20	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	0 = None	57.0	47.0	15.7	NA	NA	3 = Large	EMM	17MN6	MMSW-C _ 17MN6 _ 061917 _NSS_ 03 _BL	2	Full
272112423	1	NESP	061917	MMSW-C	10:50	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	0 = None	56.0	50.0	17.1	NA	NA	3 = Large	EMM	17MN9	MMSW-C _ 17MN9 _ 061917 _NSS_ 04 _BL	3	Full
272112424	1	NESP	061917	MMSW-C	10:50	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	2 = Light	0 = None	58.0	48.0	18.8	NA	3 = Heavy	NA	EMM	17MN9	MMSW-C _ 17MN9 _ 061917 _NSS_ 05 _BL	2	Full

BANDING INFORMATION

AGE[1]	HOW AGED[2]	SEX[3]	HOW SEXED[4]	FAT[5]	BODY MOLT[6]	SKULL[7]	BR PATCH[8]	CLOACAL PROTUBERANCE[9]
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled	
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting	
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete		
0 = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible		
	L = Molt Limits Present		Y = Culmen					
	N = Molt Limits Absent		Z = Multiple Measurements					
	P = Primary covert shape and/or primary feather shape/wear		X = Not attempted					
	T = Tail Shape and Wear							
	X = Not Attempted							

BIRD BLOOD SAMPLING INFORMATION

Requested Analyses:
Analytes: Total Hg
Methods: 1631e
Container: 70 ul Capillary Tube
 # Containers: 3
Preservative: 4°C

Quality Control Questions:
Preservative at Collection: Wet Ice

Nelson's Sparrow	NSS QC Collected:	MS/MSD
	NSS MS/MSD Source:	02
Red-Winged Black Bird	RWB QC Collected:	None
	RWB MS/MSD Source:	NA

Notes:
Bird sampling was conducted according to the following SOPs included in the QAPP;
SOP S-8 Bird Mist Netting
SOP S-9 Songbird Sampling

Technician name (Print): Louise Venne QA/QC by:

Technician Signature: Louise Venne Date:

Bird Banding and Blood Sample Collection

Project Name: USDC Penobscot River **Project Number:** 3616166052 **Sampling Team:** EMM, LSV, MCB **Collection Method:** Mist Net

Band Number (9 digits)	Band Size	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age[1]	How Aged[2]	Sex[3]	How Sexed[4]	Fat[5]	Body Molt[6]	Wing Chord (mm)	Tail Length (mm)	Weight (g)	Skull[7]	Brood Patch[8]	Cloacal Prot[9]	Bander Initials	Mist Net ID	Sample ID	# Capillary Tubes	Notes
272112426	1	NESP	062017	MMSW-C	11:10	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	2 = Light	0 = None	56.0	42.0	17.8	NA	2 = Vascular	NA	EMM	17MN016	MMSW-C _ 17MN016 _ 062017 _NSS_ 07 _BL	2	Full
185140342	1	NESP	062017	MMSW-C	10:40	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	51.0	16.4	NA	NA	3 = Large	EMM	17MN015	MMSW-C _ 17MN015 _ 062017 _NSS_ 06 _BL	2	Full
185140339	1	NESP	062017	MMSW-C	11:40	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	0 = None	58.0	48.0	17.7	NA	NA	3 = Large	EMM	17MN015	MMSW-C _ 17MN015 _ 062017 _NSS_ 08 _BL	2	1.5 cap tubes
272112428	1	NESP	062017	MMSW-C	16:00	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	0 = None	55.0	49.0	17.1	NA	NA	3 = Large	EMM	17MN010	MMSW-C _ 17MN010 _ 062017 _NSS_ 09 _BL	2	Full
270154103	1a	RWBL	062017	MMSW-C	10:20	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	2 = Light	0 = None	98.0	75.0	45.0	NA	3 = Heavy	NA	EMM	17MN014	NA	0	Bird escaped

BANDING INFORMATION

AGE[1]	HOW AGED[2]	SEX[3]	HOW SEXED[4]	FAT[5]	BODY MOLT[6]	SKULL[7]	BR PATCH[8]	CLOACAL PROTUBERANCE[9]
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled	
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting	
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete		
0 = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible		
	L = Molt Limits Present		Y = Culmen					
	N = Molt Limits Absent		Z = Multiple Measurements					
	P = Primary covert shape and/or primary feather shape/wear		X = Not attempted					
	T = Tail Shape and Wear							
	X = Not Attempted							

BIRD BLOOD SAMPLING INFORMATION

Requested Analyses:	Quality Control Questions:		Notes:
Analytes: Total Hg	Preservative at Collection: Wet Ice		Bird sampling was conducted according to the following SOPs included in the QAPP; SOP S-8 Bird Mist Netting SOP S-9 Songbird Sampling
Methods: 1631e	Nelson's Sparrow	NSS QC Collected: None	
Container: 70 ul Capillary Tube		NSS MS/MSD Source: NA	
# Containers: 3	Red-Winged Black Bird	RWB QC Collected: None	
Preservative: 4°C		RWB MS/MSD Source: NA	

Technician name (Print): Louise Venne QA/QC by:

Technician Signature: Louise Venne Date:

amec foster wheeler

Bird Banding and Blood Sample Collection

Project Name: USDC Penobscot River **Project Number:** 3616166052 **Sampling Team:** MCB, SJM, VM **Collection Method:** Mist Net

Band Number (9 digits)	Band Size	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age[1]	How Aged[2]	Sex[3]	How Sexed[4]	Fat[5]	Body Molt[6]	Wing Chord (mm)	Tail Length (mm)	Weight (g)	Skull[7]	Brood Patch[8]	Cloacal Prot[9]	Bander Initials	Mist Net ID	Sample ID	# Capillary Tubes	Notes
251144941	1	NESP	062317	MMSW-C	06:30	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	50.0	18.2	NA	NA	3 = Large	SJM	17MN021	MMSW-C _ 17MN021 _ 062317 _NSS_ 10 _BL	2	1 1/4 tubes
099177943	1a	RWBL	062317	MMSW-C	07:10	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	0 = None	0 = None	91.0	71.0	43.8	NA	4 = Wrinkled	NA	SJM	17MN022	MMSW-C _ 17MN022 _ 062317 _RWB_ 02 _BL	3	Full
251145014	1	NESP	062317	MMSW-C	08:40	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	0 = None	0 = None	54.0	46.0	16.5	NA	3 = Heavy	NA	SJM	17MN027	MMSW-C _ 17MN027 _ 062317 _NSS_ 11 _BL	2	1 1/3 tubes
251144942	1	NESP	062317	MMSW-C	09:20	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	50.0		NA	NA	3 = Large	SJM	17MN026	MMSW-C _ 17MN026 _ 062317 _NSS_ 12 _BL	2	1 1/4 tubes
099177944	1a	RWBL	062317	MMSW-C	10:50	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	0 = None	0 = None	100.0	76.0	35.5	NA	4 = Wrinkled	NA	SJM	17MN020	MMSW-C _ 17MN020 _ 062317 _RWB_ 03 _BL	3	Full
251144943	1	NESP	062317	MMSW-C	10:50	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	48.0	16.8	NA	NA	3 = Large	SJM	17MN027	MMSW-C _ 17MN027 _ 062317 _NSS_ 13 _BL	2	Full
092222676	2	RWBL	062317	MMSW-C	12:00	4 = Local	C = Nestling fledged, incapable of flight	U = Unknown	X = Not attempted	0 = None	0 = None			29.9	NA	NA	NA	SJM	17MN020	MMSW-C _ 17MN020 _ 062317 _RWB_ 04 _BL	2	1.5 tubes, could fly 10-20 feet at a time

BANDING INFORMATION

AGE[1]	HOW AGED[2]	SEX[3]	HOW SEXED[4]	FAT[5]	BODY MOLT[6]	SKULL[7]	BR PATCH[8]	CLOACAL PROTUBERANCE[9]
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled	
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting	
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete		
0 = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible		
	L = Molt Limits Present		Y = Culmen					
	N = Molt Limits Absent		Z = Multiple Measurements					
	P = Primary covert shape and/or primary feather shape/wear		X = Not attempted					
	T = Tail Shape and Wear							
	X = Not Attempted							

BIRD BLOOD SAMPLING INFORMATION

Requested Analyses:	Quality Control Questions:		Notes:
Analytes: Total Hg	Preservative at Collection: Dry Ice		Bird sampling was conducted according to the following SOPs included in the QAPP; SOP S-8 Bird Mist Netting SOP S-9 Songbird Sampling
Methods: 1631e	Nelson's Sparrow	NSS QC Collected: None	
Container: 70 ul Capillary Tube		NSS MS/MSD Source: NA	
# Containers: 3	Red-Winged Black Bird	RWB QC Collected: None	
Preservative: 4°C		RWB MS/MSD Source: NA	

Technician name (Print): Matt Basler QA/QC by:

Technician Signature: Date:

Bird Banding and Blood Sample Collection

Project Name: USDC Penobscot River **Project Number:** 3616166052 **Sampling Team:** MCB, SJM, VM **Collection Method:** Mist Net

Band Number (9 digits)	Band Size	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age[1]	How Aged[2]	Sex[3]	How Sexed[4]	Fat[5]	Body Molt[6]	Wing Chord (mm)	Tail Length (mm)	Weight (g)	Skull[7]	Brood Patch[8]	Cloacal Prot[9]	Bander Initials	Mist Net ID	Sample ID	# Capillary Tubes	Notes
185140342	1	NESP	062517	MMSW-C	06:40	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	49.0	17.6	NA	NA	3 = Large	SJM	17MN028	NA	0	
251144944	1	NESP	062517	MMSW-C	06:40	1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	57.0	50.0	17.8	NA	NA	3 = Large	SJM	17MN027	MMSW-C _ 17MN027 _ 062517 _NSS_ 14 _BL	2	Full
251144945	1	NESP	062517	MMSW-C	06:40	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	0 = None	0 = None	54.0	47.0	19.3	NA	4 = Wrinkled	NA	SJM	17MN027	MMSW-C _ 17MN027 _ 062517 _NSS_ 15 _BL	2	Full
272112421	1	NESP	062517	MMSW-C	06:40	1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	54.0	42.0	15.2	NA	NA	3 = Large	SJM	17MN027	NA	0	
099177945	1a	RWBL	062517	MMSW-C	11:20	6 = ASY	1 = Adult Plumage	F = Female	B = Brood Patch	1 = Trace	0 = None	100.0	76.0	48.3	NA	4 = Wrinkled	NA	SJM	17MN036	MMSW-C _ 17MN036 _ 062517 _RWB_ 05 _BL	3	Full

BANDING INFORMATION

AGE[1]	HOW AGED[2]	SEX[3]	HOW SEXED[4]	FAT[5]	BODY MOLT[6]	SKULL[7]	BR PATCH[8]	CLOACAL PROTUBERANCE[9]
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled	
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting	
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete		
0 = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible		
	L = Molt Limits Present		Y = Culmen					
	N = Molt Limits Absent		Z = Multiple Measurements					
	P = Primary covert shape and/or primary feather shape/wear		X = Not attempted					
	T = Tail Shape and Wear							
	X = Not Attempted							

BIRD BLOOD SAMPLING INFORMATION

Requested Analyses:	Quality Control Questions:		Notes:
Analytes: Total Hg	Preservative at Collection: Wet Ice		Bird sampling was conducted according to the following SOPs included in the QAPP; SOP S-8 Bird Mist Netting SOP S-9 Songbird Sampling
Methods: 1631e	Nelson's Sparrow	NSS QC Collected: None	
Container: 70 ul Capillary Tube		NSS MS/MSD Source: NA	
# Containers: 3	Red-Winged Black Bird	RWB QC Collected: None	
Preservative: 4°C		RWB MS/MSD Source: NA	

Technician name (Print): Matt Basler QA/QC by:

Technician Signature: Date:

Bird Banding and Blood Sample Collection

Project Name: USDC Penobscot River **Project Number:** 3616166052 **Sampling Team:** MCB, SJM, VM **Collection Method:** Mist Net

Band Number (9 digits)	Band Size	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age[1]	How Aged[2]	Sex[3]	How Sexed[4]	Fat[5]	Body Molt[6]	Wing Chord (mm)	Tail Length (mm)	Weight (g)	Skull[7]	Brood Patch[8]	Cloacal Prot[9]	Bander Initials	Mist Net ID	Sample ID	# Capillary Tubes	Notes
092222675	2	RWBL	062617	MMSW-C	06:00	6 = ASY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	117.0	87.0	62.5	NA	NA	3 = Large	SJM	17MN036	MMSW-C _ 17MN036 _ 062617 _RWB_ 06 _BL	3	Full
251144947	1	NESP	062617	MMSW-C	07:30	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	61.0	49.0	16.8	NA	NA	3 = Large	MCB	17MN035	NA	0	
251144948	1	NESP	062617	MMSW-C	08:50	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	55.0	50.0	17.5	NA	NA	3 = Large	MCB	17MN034	NA	0	

BANDING INFORMATION

AGE[1]	HOW AGED[2]	SEX[3]	HOW SEXED[4]	FAT[5]	BODY MOLT[6]	SKULL[7]	BR PATCH[8]	CLOACAL PROTUBERANCE[9]
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled	
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting	
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete		
0 = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible		
	L = Molt Limits Present		Y = Culmen					
	N = Molt Limits Absent		Z = Multiple Measurements					
	P = Primary covert shape and/or primary feather shape/wear		X = Not attempted					
	T = Tail Shape and Wear							
	X = Not Attempted							

BIRD BLOOD SAMPLING INFORMATION

Requested Analyses:
Analytes: Total Hg
Methods: 1631e
Container: 70 ul Capillary Tube
 # Containers: 3
Preservative: 4°C

Quality Control Questions:
Preservative at Collection: Wet Ice

Nelson's Sparrow	NSS QC Collected:	None
	NSS MS/MSD Source:	NA
Red-Winged Black Bird	RWB QC Collected:	None
	RWB MS/MSD Source:	NA

Notes:
Bird sampling was conducted according to the following SOPs included in the QAPP;
SOP S-8 Bird Mist Netting
SOP S-9 Songbird Sampling

Technician name (Print): Matt Basler QA/QC by:

Technician Signature: Matt Basler Date:

Bird Banding and Blood Sample Collection

Project Name: USDC Penobscot River **Project Number:** 3616166052 **Sampling Team:** KCB, SJM, VM **Collection Method:** Mist Net

Band Number (9 digits)	Band Size	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age[1]	How Aged[2]	Sex[3]	How Sexed[4]	Fat[5]	Body Molt[6]	Wing Chord (mm)	Tail Length (mm)	Weight (g)	Skull[7]	Brood Patch[8]	Cloacal Prot[9]	Bander Initials	Mist Net ID	Sample ID	# Capillary Tubes	Notes
274146530	1	NESP	061917	W17-N	08:40	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	49.0	18.1	NA	NA	3 = Large	SJM	17MN001	W17-N _ 17MN001 _ 061917 _NSS_ 01 _BL	2	Poor bleeder
092222675	2	RWBL	061917	W17-N	08:30	1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	122.0	1.0	71.9	NA	NA	NA	SJM	17MN002	W17-N _ 17MN002 _ 061917 _RWB_ 01 _BL	5	104 tail, MS, tail more than 100
099177940	1A	RWBL	061917	W17-N	10:00	1 = AHY	1 = Adult Plumage	F = Female	1 = Adult Plumage	0 = None	0 = None	96.0	73.0	45.6	NA	3 = Heavy	NA	SJM	17MN005	W17-N _ 17MN005 _ 061917 _RWB_ 02 _BL	4	Extra MD
099177941	1A	RWBL	061917	W17-N	11:30	1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	1 = Trace	0 = None	94.0	68.0	46.5	NA	3 = Heavy	0 = None	SJM	17MN006	W17-N _ 17MN006 _ 061917 _RWB_ 03 _BL	4	
251145049	1	NESP	061917	W17-N	12:00	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	55.0	46.0	16.9	NA	NA	3 = Large	SJM	17MN008	W17-N _ 17MN008 _ 061917 _NSS_ 02 _BL	1	Not bleeder small
099177942	1A	RWBL	061917	W17-N	13:33	1 = AHY	1 = Adult Plumage	F = Female	1 = Adult Plumage	1 = Trace	0 = None	94.0	71.0	5.0	NA	3 = Heavy	NA	SJM	17MN006	W17-N _ 17MN006 _ 061917 _RWB_ 04 _BL	1	Not bleeding, weight not taken. Weight null
176146148	1B	SOSP	061917	W17-N	10:20	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	0 = None	64.0	64.0	23.0	NA	NA	3 = Large	SJM	17MN002	NA	0	
176146149	1B	SOSP	061917	W17-N	11:00	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	64.0	65.0	21.3	NA	NA	3 = Large	SJM	17MN009	NA	0	
176146150	1B	SOSP	061917	W17-N	13:20	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	1 = Trace	0 = None	61.0	61.0	20.3	NA	3 = Heavy	NA	SJM	17MN009	NA	0	
176146151	1B	SOSP	061917	W17-N	14:10	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	0 = None	64.0	62.0	21.3	NA	NA	3 = Large	SJM	17MN002	NA	0	

BANDING INFORMATION

AGE[1]	HOW AGED[2]	SEX[3]	HOW SEXED[4]	FAT[5]	BODY MOLT[6]	SKULL[7]	BR PATCH[8]	CLOACAL PROTUBERANCE[9]
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled	
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting	
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete		
0 = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible		
	L = Molt Limits Present		Y = Culmen					
	N = Molt Limits Absent		Z = Multiple Measurements					
	P = Primary covert shape and/or primary feather shape/wear		X = Not attempted					
	T = Tail Shape and Wear							
	X = Not Attempted							

BIRD BLOOD SAMPLING INFORMATION

Requested Analyses:	Quality Control Questions:		Notes:
Analytes: Total Hg	Preservative at Collection: Wet Ice		Bird sampling was conducted according to the following SOPs included in the QAPP; SOP S-8 Bird Mist Netting SOP S-9 Songbird Sampling
Methods: 1631e	Nelson's Sparrow	NSS QC Collected: None	
Container: 70 ul Capillary Tube		NSS MS/MSD Source: NA	
# Containers: 3	Red-Winged Black Bird	RWB QC Collected: MS/MSD	
Preservative: 4°C		RWB MS/MSD Source: 01	

Technician name (Print): Kendra Bavor QA/QC by:

Technician Signature: Date:

Bird Banding and Blood Sample Collection

Project Name: USDC Penobscot River **Project Number:** 3616166052 **Sampling Team:** KCB, SJM, VM **Collection Method:** Mist Net

Band Number (9 digits)	Band Size	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age[1]	How Aged[2]	Sex[3]	How Sexed[4]	Fat[5]	Body Molt[6]	Wing Chord (mm)	Tail Length (mm)	Weight (g)	Skull[7]	Brood Patch[8]	Cloacal Prot[9]	Bander Initials	Mist Net ID	Sample ID	# Capillary Tubes	Notes
251144924	1	NESP	062017	W17-N	11:30	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	49.0	17.9	NA	NA	3 = Large	SJM	17MN007	W17-N _ 17MN007 _ 062017 _NSS_ 03 _BL	1	Poor bleeder
181140312	1	NESP	062017	W17-N	12:15	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	0 = None	58.0	48.0	19.8	NA	NA	3 = Large	SJM	17MN001	W17-N _ 17MN001 _ 062017 _NSS_ 04 _BL	3	
251144925	1	NESP	062017	W17-N	12:25	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	0 = None	52.0	44.0	17.8	NA	NA	2 = Medium	SJM	17MN002	W17-N _ 17MN002 _ 062017 _NSS_ 05 _BL	4	
251145045	1	NESP	062017	W17-N	12:35	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	1 = Trace	0 = None	53.0	48.0	17.2	NA	3 = Heavy	NA	SJM	17MN007	W17-N _ 17MN007 _ 062017 _NSS_ 06 _BL	5	MS/MD
251145045	1	NESP	062017	W17-N	14:40	1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	1 = Trace	0 = None	58.0	51.0	19.1	NA	NA	3 = Large	SJM	17MN010	W17-N _ 17MN010 _ 062017 _NSS_ 07 _BL	3	
																NA						
251144926	1	SWSP	062017	W17-N	13:40	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	60.0	55.0	16.5	NA	NA	3 = Large	SJM	17MN011	NA	0	
176146148	1	SOSP	062017	W17-N	12:40	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	0 = None	64.0	65.0	23.8	NA	NA	3 = Large	SJM	17MN010	NA	0	
185140309	1	SWSP	062017	W17-N	12:40	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	62.0	63.0	17.5	NA	NA	3 = Large	SJM	17MN010	NA	0	

BANDING INFORMATION

AGE[1]	HOW AGED[2]	SEX[3]	HOW SEXED[4]	FAT[5]	BODY MOLT[6]	SKULL[7]	BR PATCH[8]	CLOACAL PROTUBERANCE[9]
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled	
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting	
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete		
0 = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible		
	L = Molt Limits Present		Y = Culmen					
	N = Molt Limits Absent		Z = Multiple Measurements					
	P = Primary covert shape and/or primary feather shape/wear		X = Not attempted					
	T = Tail Shape and Wear							
	X = Not Attempted							

BIRD BLOOD SAMPLING INFORMATION

Requested Analyses:	Quality Control Questions:		Notes:
Analytes: Total Hg	Preservative at Collection: Wet Ice		Bird sampling was conducted according to the following SOPs included in the QAPP; SOP S-8 Bird Mist Netting SOP S-9 Songbird Sampling
Methods: 1631e	Nelson's Sparrow	NSS QC Collected: MS/MSD	
Container: 70 ul Capillary Tube		NSS MS/MSD Source: 06	
# Containers: 3	Red-Winged Black Bird	RWB QC Collected: MS/MSD	
Preservative: 4°C		RWB MS/MSD Source: 01	

Technician name (Print): Kendra Bavor QA/QC by:

Technician Signature: Date:

amec foster wheeler

Bird Banding and Blood Sample Collection

Project Name: USDC Penobscot River **Project Number:** 3616166052 **Sampling Team:** EMM, KCB, LSV **Collection Method:** Mist Net

Band Number (9 digits)	Band Size	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age[1]	How Aged[2]	Sex[3]	How Sexed[4]	Fat[5]	Body Molt[6]	Wing Chord (mm)	Tail Length (mm)	Weight (g)	Skull[7]	Brood Patch[8]	Cloacal Prot[9]	Bander Initials	Mist Net ID	Sample ID	# Capillary Tubes	Notes
270154105	1A	RWBL	062517	W17-N	06:50	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	1 = Trace	0 = None	104.0	76.0	42.1	NA	4 = Wrinkled	NA	EMM	17MN039	W17-N _ 17MN039 _ 062517 _RWB_ 05 _BL	3	1-3/4 full. 44.62370n 68.85603w
251144924	1	NESP	062517	W17-N	06:50	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	0 = None	55.0	50.0	15.9	NA	NA	3 = Large	LSV	17MN036	NA	0	Recap44.62331n68.85356w
185130410	1	NESP	062517	W17-N	06:50	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	50.0	17.3	NA	NA	3 = Large	LSV	17MN037	NA	0	Recap44.62324n68.85392w
251144924	1	NESP	062517	W17-N	06:50	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	0 = None	55.0	50.0	15.9	NA	3 = Heavy	NA	EMM	17MN037	NA	0	Recap44.62324n68.85392w
274146536	1	NESP	062517	W17-N	07:50	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	55.0	48.0	18.3	NA	NA	3 = Large	EMM	17MN037	W17-N _ 17MN037 _ 062517 _NSS_ 09 _BL	2	44.62324n68.85392w
272112445	1	NESP	062517	W17-N	07:40	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	0 = None	58.0	50.0	17.4	0 = None	NA	3 = Large	EMM	17MN037	W17-N _ 17MN037 _ 062517 _NSS_ 08 _BL	2	44.62324n68.85392w
272112447	1	NESP	062517	W17-N	08:50	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	0 = None	57.0	51.0	18.3	NA	NA	3 = Large	EMM	17MN041	W17-N _ 17MN041 _ 062517 _NSS_ 10 _BL	2	44.62301n68.85514w
270154106	1A	SPSA	062517	W17-N	06:40	1 = AHY	1 = Adult Plumage	U = Unknown	X = Not attempted	0 = None	0 = None	103.0	50.0		NA	NA	NA	EMM	17MN039	NA	0	
272112446	1	SOSP	062517	W17-N	08:20	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch		0 = None	62.0	60.0	20.0	NA	4 = Wrinkled	NA	LSV	17MN033	NA	0	44.62455n68.85329w

BANDING INFORMATION

AGE[1]	HOW AGED[2]	SEX[3]	HOW SEXED[4]	FAT[5]	BODY MOLT[6]	SKULL[7]	BR PATCH[8]	CLOACAL PROTUBERANCE[9]
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled	
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting	
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete		
0 = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible		
	L = Molt Limits Present		Y = Culmen					
	N = Molt Limits Absent		Z = Multiple Measurements					
	P = Primary covert shape and/or primary feather shape/wear		X = Not attempted					
	T = Tail Shape and Wear							
	X = Not Attempted							

BIRD BLOOD SAMPLING INFORMATION

Requested Analyses:	Quality Control Questions:		Notes:
Analytes: Total Hg	Preservative at Collection: Wet Ice		Bird sampling was conducted according to the following SOPs included in the QAPP; SOP S-8 Bird Mist Netting SOP S-9 Songbird Sampling
Methods: 1631e	Nelson's Sparrow	NSS QC Collected: MS/MSD	
Container: 70 ul Capillary Tube		NSS MS/MSD Source: 06	
# Containers: 3	Red-Winged Black Bird	RWB QC Collected: MS/MSD	
Preservative: 4°C		RWB MS/MSD Source: 01	

Technician name (Print): Kendra Bavor QA/QC by:

Technician Signature: Date:

amec foster wheeler

Bird Banding and Blood Sample Collection

Project Name: USDC Penobscot River **Project Number:** 3616166052 **Sampling Team:** EMM, KCB, LSV **Collection Method:** Mist Net

Band Number (9 digits)	Band Size	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age[1]	How Aged[2]	Sex[3]	How Sexed[4]	Fat[5]	Body Molt[6]	Wing Chord (mm)	Tail Length (mm)	Weight (g)	Skull[7]	Brood Patch[8]	Cloacal Prot[9]	Bander Initials	Mist Net ID	Sample ID	# Capillary Tubes	Notes
028206202	0	TRES	062617	W17-N	05:40	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	2 = Light	0 = None	113.0	46.0	18.9	NA	NA	2 = Medium	EMM	17MN052	NA	0	Tail 46 &53
028206203	0	CLSW	062617	W17-N	05:40	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	2 = Light	0 = None	110.0	36.0		NA	2 = Vascular	NA	EMM	17MN052	NA	0	Tail 36&49
272112447	1	NESP	062617	W17-N	06:50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	Recap from 6-25-17, data not collected
274146533	1	NESP	062617	W17-N	06:40	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	58.0	48.0	17.2	NA	NA	3 = Large	EMM	17MN058	W17-N _ 17MN058 _ 062617 _NSS_ 11 _BL	2	44.62324N, 068.85392W
272112448	1	CLSW	062617	W17-N	06:40	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	0 = None	110.0	46.0	16.8	NA	NA	2 = Medium	LSV	17MN059	NA	0	
282006204	0	CLSW	062617	W17-N	06:10	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	1 = Trace	0 = None	102.0	45.0	20.4	NA	NA	2 = Medium	EMM	17MN052	NA	0	
282006205	0	TRES	062617	W17-N	06:40	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	0 = None	0 = None	111.0	45.0	18.5	NA	2 = Vascular	NA	EMM	17MN053	NA	0	
279042912	0A	COYE	062617	W17-N	11:20	1 = AHY	1 = Adult Plumage	F = Female	B = Brood Patch	2 = Light	0 = None	52.0	47.0	10.7	NA	4 = Wrinkled	NA	EMM	17MN051	NA	0	
185140312	1	NESP	062617	W17-N	11:20	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	58.0	48.0	19.3	NA	NA	3 = Large	LSV	17MN053	NA	0	Previously bled

BANDING INFORMATION

AGE[1]	HOW AGED[2]	SEX[3]	HOW SEXED[4]	FAT[5]	BODY MOLT[6]	SKULL[7]	BR PATCH[8]	CLOACAL PROTUBERANCE[9]
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled	
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting	
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete		
0 = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible		
	L = Molt Limits Present		Y = Culmen					
	N = Molt Limits Absent		Z = Multiple Measurements					
	P = Primary covert shape and/or primary feather shape/wear		X = Not attempted					
	T = Tail Shape and Wear							
	X = Not Attempted							

BIRD BLOOD SAMPLING INFORMATION

Requested Analyses:	Quality Control Questions:		Notes:
Analytes: Total Hg	Preservative at Collection: Wet Ice		Bird sampling was conducted according to the following SOPs included in the QAPP; SOP S-8 Bird Mist Netting SOP S-9 Songbird Sampling
Methods: 1631e	Nelson's Sparrow	NSS QC Collected: MS/MSD	
Container: 70 ul Capillary Tube		NSS MS/MSD Source: 06	
# Containers: 3	Red-Winged Black Bird	RWB QC Collected: MS/MSD	
Preservative: 4°C		RWB MS/MSD Source: 01	

Technician name (Print): Louise Venne QA/QC by:

Technician Signature: Louise Venne Date:

Bird Banding and Blood Sample Collection

Project Name: USDC Penobscot River **Project Number:** 3616166052 **Sampling Team:** EMM, KCB, LSV, MCB, SJM, VM **Collection Method:** Mist Net

Band Number (9 digits)	Band Size	Alpha Code (4 digits)	Date MMDDYY	Location ID	Time (24hr)	Age[1]	How Aged[2]	Sex[3]	How Sexed[4]	Fat[5]	Body Molt[6]	Wing Chord (mm)	Tail Length (mm)	Weight (g)	Skull[7]	Brood Patch[8]	Cloacal Prot[9]	Bander Initials	Mist Net ID	Sample ID	# Capillary Tubes	Notes
185140310	1	NESP	062917	W17-N	05:50	1 = AHY	1 = Adult Plumage	M = Male	C = Cloacal Protuberance	0 = None	0 = None	57.0	45.0	17.9	NA	NA	3 = Large	SJM	17MN063	W17-N _ 17MN063 _ 062917 _NSS_ 12 _BL	2	1.5 full cap tubes. Recap from last year
															NA							

BANDING INFORMATION

AGE[1]	HOW AGED[2]	SEX[3]	HOW SEXED[4]	FAT[5]	BODY MOLT[6]	SKULL[7]	BR PATCH[8]	CLOACAL PROTUBERANCE[9]
1 = AHY	1 = Adult Plumage	M = Male	1 = Adult Plumage	0 = None	0 = None	0 = None	0 = None	0 = None
2 = HY	2 = Juvenal Plumage	F = Female	2 = Juvenal Plumage	1 = Trace	1 = Trace	1 = Trace	1 = Smooth	1 = Small
4 = Local	A = Nestling in nest, no flight feathers	U = Unknown	3 = Eye Color	2 = Light	2 = Light	2 = < 1/3	2 = Vascular	2 = Medium
5 = SY	B = Nestling in nest, flight feathers in pin	6 = Male sexed subsequently	B = Brood Patch	3 = half	3 = Medium	3 = Half	3 = Heavy	3 = Large
6 = ASY	C = Nestling fledged, incapable of flight	7 = Female sexed subsequently	C = Cloacal Protuberance	4 = Filled	4 = Heavy	4 = > 2/3	4 = Wrinkled	
7 = TY	E = Eye color		E = Egg in Oviduct	5 = Bulging		5 = Almost Complete	5 = Molting	
8 = ATY	F = Flight Feather Wear		W = Wing Chord	6 = Greatly Bulging		6 = Complete		
0 = Unknown	S = Skull		T = Tail Length	7 = Very Excessive		7 = Invisible		
	L = Molt Limits Present		Y = Culmen					
	N = Molt Limits Absent		Z = Multiple Measurements					
	P = Primary covert shape and/or primary feather shape/wear		X = Not attempted					
	T = Tail Shape and Wear							
	X = Not Attempted							

BIRD BLOOD SAMPLING INFORMATION

Requested Analyses:	Quality Control Questions:		Notes:
Analytes: Total Hg	Preservative at Collection: Wet Ice		Bird sampling was conducted according to the following SOPs included in the QAPP; SOP S-8 Bird Mist Netting SOP S-9 Songbird Sampling
Methods: 1631e	Nelson's Sparrow	NSS QC Collected: MS/MSD	
Container: 70 ul Capillary Tube		NSS MS/MSD Source: 06	
# Containers: 3	Red-Winged Black Bird	RWB QC Collected: None	
Preservative: 4°C		RWB MS/MSD Source: NA	

Technician name (Print): Louise Venne QA/QC by:

Technician Signature: Louise Venne Date:

Eel Field Data Records

amec foster wheeler

SAMPLE COLLECTION LOG
EEL WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	060517	**Location ID:**	BO-04
Collectors:	JAB	**Collection Method (Equip):**	Eels Traps - Horseshoe crab Bait
		Habitat:	Rocky-Gravel

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
BO-04 _ 17ET002 _ 060517 _EEL_ 01 _WB	09:48	309	60.0		
BO-04 _ 17ET002 _ 060517 _EEL_ 02 _WB	09:48	358	90.0		Ms/msd
BO-04 _ 17ET002 _ 060517 _EEL_ 03 _WB	09:48	306	70.0		
BO-04 _ 17ET003 _ 060517 _EEL_ 04 _WB	09:53	260	30.0		
BO-04 _ 17ET004 _ 060517 _EEL_ 05 _WB	09:57	288	40.0		
BO-04 _ 17ET005 _ 060517 _EEL_ 06 _WB	10:01	285	50.0		
BO-04 _ 17ET009 _ 060517 _EEL_ 07 _WB	10:10	295	50.0		
BO-04 _ 17ET012 _ 060517 _EEL_ 08 _WB	10:18	296	50.0		
BO-04 _ 17ET015 _ 060517 _EEL_ 09 _WB	10:51	286	40.0		
BO-04 _ 17ET015 _ 060517 _EEL_ 10 _WB	10:51	310	50.0		
BO-04 _ 17ET015 _ 060517 _EEL_ 11 _WB	10:51	319	70.0		
BO-04 _ 17ET015 _ 060517 _EEL_ 12 _WB	10:51	324	90.0		
BO-04 _ 17ET015 _ 060517 _EEL_ 13 _WB	10:51	322	70.0		
BO-04 _ 17ET015 _ 060517 _EEL_ 14 _WB	10:51	294	60.0		
BO-04 _ 17ET015 _ 060517 _EEL_ 15 _WB	10:51	324	80.0		
BO-04 _ 17ET016 _ 060517 _EEL_ 16 _WB	11:00	285	60.0		
BO-04 _ 17ET016 _ 060517 _EEL_ 17 _WB	11:00	311	70.0		
BO-04 _ 17ET017 _ 060517 _EEL_ 18 _WB	11:08	298	70.0		
BO-04 _ 17ET018 _ 060517 _EEL_ 19 _WB	11:13	348	70.0		
BO-04 _ 17ET020 _ 060517 _EEL_ 20 _WB	11:19	286	50.0		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers:	Preservative:
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: MS/MSD MS/MSD Source: 02
Non-targeted Species Captured: Other: Smallmouth bass

Notes:

Fish sampling was conducted according to the following SOPs included in the QAPP;
SOP S-12 Fish Sampling Procedures
SOP S-13 Fish Sample Processing and Handling Procedures

Technician name (Print): Jonathan Bourdeau QA/QC by:

Technician Signature: Date:

amec foster wheeler

SAMPLE COLLECTION LOG
EEL WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	060517	**Location ID:**	OB-05
Collectors:	JAB	**Collection Method (Equip):**	Eels Traps - horseshoe crab bait
		Habitat:	Mud Flat, Rocky-Gravel

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
OB-05 _ 17ET100 _ 060517 _EEL_ 01 _WB	13:00	351	90.0		Ms/msd
OB-05 _ 17ET100 _ 060517 _EEL_ 02 _WB	13:00	356	90.0		
OB-05 _ 17ET100 _ 060517 _EEL_ 03 _WB	13:00	286	60.0		
OB-05 _ 17ET111 _ 060517 _EEL_ 04 _WB	14:18	312	60.0		
OB-05 _ 17ET111 _ 060517 _EEL_ 05 _WB	14:18	359	70.0		
OB-05 _ 17ET110 _ 060517 _EEL_ 06 _WB	14:22	315	70.0		
OB-05 _ 17ET110 _ 060517 _EEL_ 07 _WB	14:22	281	50.0		
OB-05 _ 17ET104 _ 060517 _EEL_ 08 _WB	14:37	323	70.0		
OB-05 _ 17ET104 _ 060517 _EEL_ 09 _WB	14:37	277	40.0		
OB-05 _ 17ET101 _ 060517 _EEL_ 10 _WB	14:47	320	60.0		
OB-05 _ 17ET101 _ 060517 _EEL_ 11 _WB	14:47	297	50.0		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers:	Preservative:
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: MS/MSD MS/MSD Source: 01
Non-targeted Species Captured: Green Crab, Atlantic Tomcod, Other: Catfish

Notes:

Fish sampling was conducted according to the following SOPs included in the QAPP;
SOP S-12 Fish Sampling Procedures
SOP S-13 Fish Sample Processing and Handling Procedures

Technician name (Print): Jonathen Bourdeau QA/QC by: _____

Technician Signature: Jonathen Bourdeau Date: _____

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SAMPLE COLLECTION LOG
EEL WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	060617	**Location ID:**	OB-05
Collectors:	JAB	**Collection Method (Equip):**	Eels Traps - Horseshoe crab bait
		Habitat:	Mud Flat, Rocky-Gravel

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
OB-05 _ 17ET141 _ 060617 _EEL_ 12 _WB	11:20	349	70.0		
OB-05 _ 17ET141 _ 060617 _EEL_ 13 _WB	11:20	336	60.0		
OB-05 _ 17ET141 _ 060617 _EEL_ 14 _WB	11:20	329	80.0		
OB-05 _ 17ET141 _ 060617 _EEL_ 15 _WB	11:20	303	50.0		
OB-05 _ 17ET141 _ 060617 _EEL_ 16 _WB	11:20	282	40.0		
OB-05 _ 17ET141 _ 060617 _EEL_ 17 _WB	11:20	275	40.0		
OB-05 _ 17ET141 _ 060617 _EEL_ 18 _WB	11:20	284	40.0		
OB-05 _ 17ET141 _ 060617 _EEL_ 19 _WB	11:20	274	40.0		
OB-05 _ 17ET141 _ 060617 _EEL_ 20 _WB	11:20	286	40.0		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers:	Preservative:
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Dry Ice
QC Collected: None MS/MSD Source: NA
Non-targeted Species Captured: Green Crab, Other: 1 catfish

Notes:

Fish sampling was conducted according to the following SOPs included in the QAPP;
SOP S-12 Fish Sampling Procedures
SOP S-13 Fish Sample Processing and Handling Procedures

Technician name (Print): Jonathan Bourdeau QA/QC by:

Technician Signature: Jonathan Bourdeau Date:

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SAMPLE COLLECTION LOG
EEL WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	060917	**Location ID:**	OV-04
Collectors:	JB, KB	**Collection Method (Equip):**	Eels Traps - horseshoe crab bait
		Habitat:	Rocky-Gravel

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
OV-04 _ 17ET015 _ 060917 _EEL_ 01 _WB	08:55	372	90.0	No	Ms/msd

Requested Analyses:

Analytes:	Methods:	Container:	# Containers:	Preservative:
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Dry Ice
QC Collected: MS/MSD MS/MSD Source: 01
Non-targeted Species Captured: Other: Catfish, smallmouth bass, shiner, bluegill

Notes:

Fish sampling was conducted according to the following SOPs included in the QAPP;
SOP S-12 Fish Sampling Procedures
SOP S-13 Fish Sample Processing and Handling Procedures

Technician name (Print): Jonathan Bourdeau QA/QC by: _____

Technician Signature:  Date: _____

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SAMPLE COLLECTION LOG
EEL WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	072817	**Location ID:**	OV-04
Collectors:	JAB, DOL	**Collection Method (Equip):**	Eel traps, horseshoe crab bait
		Habitat:	Rocky-Gravel

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
OV-04 _ 17ET _ 072817 _EEL_ 02 _WB	14:22	366	70.0	No	MS/MSD
OV-04 _ 17ET _ 072817 _EEL_ 03 _WB	14:22	355	70.0	No	
OV-04 _ 17ET _ 072817 _EEL_ 04 _WB	14:22	337	80.0	No	
OV-04 _ 17ET _ 072817 _EEL_ 05 _WB	14:22	329	60.0	No	
OV-04 _ 17ET _ 072817 _EEL_ 06 _WB	14:22	312	60.0	No	
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Requested Analyses:

Analytes:	Methods:	Container:	# Containers:	Preservative:
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Dry Ice
QC Collected: MS/MSD MS/MSD Source: 02
Non-targeted Species Captured: Other: Smallmouth bass, catfish, sunfish

Notes:

Fish sampling was conducted according to the following SOPs included in the QAPP;
SOP S-12 Fish Sampling Procedures
SOP S-13 Fish Sample Processing and Handling Procedures

Technician name (Print): Jonathan Bourdeau QA/QC by:

Technician Signature: Date:

Fish Field Data Records

amec foster wheeler

SAMPLE COLLECTION LOG
FISH WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052.04A.4A055
Date:	091717	**Location ID:**	BO-04
Collectors:	KPH, JAB	**Collection Method (Equip):**	Other: ET
Species:	Atlantic Tomcod (TOM)	**Habitat:**	Mud Flat

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
BO-04 _ 17ET 08 _ 091717 _TOM_ 01 _WB	11:10	130	17.6		MSMSD
BO-04 _ 17ET 10 _ 091717 _TOM_ 02 _WB	11:10	108	7.4		
BO-04 _ 17ET 14 _ 091717 _TOM_ 03 _WB	11:10	125	17.4		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers:	Preservative:
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: MS/MSD MS/MSD Source: 01
Non-targeted Species Captured: Green Crab, Other: Green sunfish, white bass

Notes:

Fish sampling was conducted according to the following SOPs included in the QAPP;
SOP S-12 Fish Sampling Procedures
SOP S-13 Fish Sample Processing and Handling Procedures

Technician name (Print): KP Haywood QA/QC by:

Technician Signature: Date:

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SAMPLE COLLECTION LOG
FISH WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052.04A.4A055
Date:	092017	**Location ID:**	BO-04
Collectors:	PH	**Collection Method (Equip):**	Other: ET
Species:	Atlantic Tomcod (TOM)	**Habitat:**	Mud Flat

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
BO-04 _ 17ET025 _ 092017 _TOM_ 04 _WB	10:40	117	13.4		
BO-04 _ 17ET026 _ 092017 _TOM_ 05 _WB	10:40	187	48.4		
BO-04 _ 17ET030 _ 092017 _TOM_ 06 _WB	10:48	103	8.5		
BO-04 _ 17ET035 _ 092017 _TOM_ 07 _WB	10:58	107	8.6		
BO-04 _ 17ET041 _ 092017 _TOM_ 08 _WB	11:10	121	13.8		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers:	Preservative:
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: None MS/MSD Source: NA
Non-targeted Species Captured: Green Crab, Eel, Other: Freshwater species (yellow perch, smallmouth bass)

Notes:

Fish sampling was conducted according to the following SOPs included in the QAPP;
SOP S-12 Fish Sampling Procedures
SOP S-13 Fish Sample Processing and Handling Procedures

Technician name (Print): Jonathan Bourdeau QA/QC by:

Technician Signature: Date:

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SAMPLE COLLECTION LOG
FISH WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052.04A.4A055
Date:	091317	**Location ID:**	ES-13
Collectors:	JAB	**Collection Method (Equip):**	Other: LT
Species:	Atlantic Tomcod (TOM)	**Habitat:**	Mud Flat

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
ES-13 _ 17LT012 _ 091317 _TOM_ 01 _WB	11:50	291	0.28		MS/MSD

Requested Analyses:

Analytes:	Methods:	Container:	# Containers:	Preservative:
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Dry Ice
QC Collected: MS/MSD MS/MSD Source: 01
Non-targeted Species Captured: Peekytoe Crab

Notes:

Fish sampling was conducted according to the following SOPs included in the QAPP;
SOP S-12 Fish Sampling Procedures
SOP S-13 Fish Sample Processing and Handling Procedures

Technician name (Print): Jonathan Bourdeau QA/QC by:

Technician Signature: Date:

amec foster wheeler

SAMPLE COLLECTION LOG
FISH WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052.04A.4A055
Date:	091817	**Location ID:**	ES-13
Collectors:	KPH JAB	**Collection Method (Equip):**	Other: ET
Species:	Atlantic Tomcod (TOM)	**Habitat:**	Mud Flat, Woodchips

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
ES-13 _ 17ET718 _ 091817 _TOM_ 02 _WB	08:36	201	67.3		
ES-13 _ 17ET719 _ 091817 _TOM_ 03 _WB	08:41	132	19.2		
ES-13 _ 17ET719 _ 091817 _TOM_ 04 _WB	08:41	109	12.7		
ES-13 _ 17ET719 _ 091817 _TOM_ 05 _WB	08:41	133	19.1		
ES-13 _ 17ET719 _ 091817 _TOM_ 06 _WB	08:41	128	16.0		
ES-13 _ 17ET722 _ 091817 _TOM_ 07 _WB	08:54	125	14.0		
ES-13 _ 17ET722 _ 091817 _TOM_ 08 _WB	08:54	140	21.2		
ES-13 _ 17ET723 _ 091817 _TOM_ 09 _WB	08:59	224	98.0		
ES-13 _ 17ET723 _ 091817 _TOM_ 10 _WB	08:59	231	87.5		
ES-13 _ 17ET717 _ 091817 _TOM_ 11 _WB	08:33	247	131.6		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers:	Preservative:
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: None MS/MSD Source: NA
Non-targeted Species Captured: Green Crab, Peekytoe Crab, Other: Red Hake, Sculpin

Notes:

Fish sampling was conducted according to the following SOPs included in the QAPP;
SOP S-12 Fish Sampling Procedures
SOP S-13 Fish Sample Processing and Handling Procedures

Technician name (Print): KP Haywood QA/QC by:

Technician Signature:  Date:

amec foster wheeler

SAMPLE COLLECTION LOG
FISH WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052.04A.4A055
Date:	091517	**Location ID:**	ES-FP
Collectors:	JAB	**Collection Method (Equip):**	Other: ET
Species:	Atlantic Tomcod (TOM)	**Habitat:**	Mud Flat

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
ES-FP _ 17ET658 _ 091517 _TOM_ 01 _WB	10:34	144	22.5		MS/MSD

Requested Analyses:

Analytes:	Methods:	Container:	# Containers:	Preservative:
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: MS/MSD MS/MSD Source: 01
Non-targeted Species Captured: Green Crab, Peekytoe Crab

Notes:

Fish sampling was conducted according to the following SOPs included in the QAPP;
SOP S-12 Fish Sampling Procedures
SOP S-13 Fish Sample Processing and Handling Procedures

Technician name (Print): Jonathan Bourdeau QA/QC by:

Technician Signature: Date:

amec foster wheeler

SAMPLE COLLECTION LOG
FISH WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052.04A.4A055
Date:	091617	**Location ID:**	OB-01
Collectors:	KPH DOL	**Collection Method (Equip):**	Other: ET
Species:	Atlantic Tomcod (TOM)	**Habitat:**	Mud Flat

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
OB-01 _ 17ET001 _ 091617 _TOM_ 01 _WB	08:45	239	119.8		MSMSD
OB-01 _ 17ET001 _ 091617 _TOM_ 02 _WB	08:45	198	60.4		
OB-01 _ 17ET001 _ 091617 _TOM_ 03 _WB	08:45	210	78.5		
OB-01 _ 17ET001 _ 091617 _TOM_ 04 _WB	08:45	219	95.0		
OB-01 _ 17ET001 _ 091617 _TOM_ 05 _WB	08:45	194	58.6		
OB-01 _ 17ET001 _ 091617 _TOM_ 06 _WB	08:45	136	23.1		
OB-01 _ 17ET001 _ 091617 _TOM_ 07 _WB	08:45	172	29.9		
OB-01 _ 17ET001 _ 091617 _TOM_ 08 _WB	08:45	180	47.8		
OB-01 _ 17ET001 _ 091617 _TOM_ 09 _WB	08:45	136	21.1		
OB-01 _ 17ET002 _ 091617 _TOM_ 10 _WB	08:45	232	102.2		
OB-01 _ 17ET002 _ 091617 _TOM_ 11 _WB	08:45	128	17.0		
OB-01 _ 17ET002 _ 091617 _TOM_ 12 _WB	08:45	126	17.7		
OB-01 _ 17ET003 _ 091617 _TOM_ 13 _WB	08:45	185	49.6		
OB-01 _ 17ET004 _ 091617 _TOM_ 14 _WB	08:45	119	13.1		
OB-01 _ 17ET004 _ 091617 _TOM_ 15 _WB	08:45	121	13.6		
OB-01 _ 17ET004 _ 091617 _TOM_ 16 _WB	08:45	138	21.9		
OB-01 _ 17ET005 _ 091617 _TOM_ 17 _WB	08:45	116	12.6		
OB-01 _ 17ET006 _ 091617 _TOM_ 18 _WB	08:45	186	49.9		
OB-01 _ 17ET007 _ 091617 _TOM_ 19 _WB	08:45	184	46.8		
OB-01 _ 17ET008 _ 091617 _TOM_ 20 _WB	08:45	219	88.2		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers:	Preservative:
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: MS/MSD MS/MSD Source: 01
Non-targeted Species Captured: Green Crab, Other: Flounder

Notes:

Fish sampling was conducted according to the following SOPs included in the QAPP;
SOP S-12 Fish Sampling Procedures
SOP S-13 Fish Sample Processing and Handling Procedures

Technician name (Print): KP Haywood QA/QC by:

Technician Signature: Date:

amec foster wheeler

SAMPLE COLLECTION LOG
FISH WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052.04A.4A055
Date:	091717	**Location ID:**	OB-05
Collectors:	KPH JAB	**Collection Method (Equip):**	Other: ET
Species:	Atlantic Tomcod (TOM)	**Habitat:**	Mud Flat

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
OB-05 _ 17ET 02 _ 091717 _TOM_ 01 _WB	12:30	151	20.8		
OB-05 _ 17ET 02 _ 091717 _TOM_ 02 _WB	12:30	94	7.0		
OB-05 _ 17ET 03 _ 091717 _TOM_ 03 _WB	12:30	117	13.2		
OB-05 _ 17ET 03 _ 091717 _TOM_ 04 _WB	12:30	100	8.4		
OB-05 _ 17ET 09 _ 091717 _TOM_ 05 _WB	12:30	218	80.3		MSMSD
OB-05 _ 17ET 10 _ 091717 _TOM_ 06 _WB	12:30	118	13.5		
OB-05 _ 17ET 11 _ 091717 _TOM_ 07 _WB	12:30	130	19.0		
OB-05 _ 17ET 12 _ 091717 _TOM_ 08 _WB	12:30	123	14.1		
OB-05 _ 17ET 12 _ 091717 _TOM_ 09 _WB	12:30	116	13.5		
OB-05 _ 17ET 13 _ 091717 _TOM_ 10 _WB	12:30	194	60.6		
OB-05 _ 17ET 13 _ 091717 _TOM_ 11 _WB	12:30	109	10.9		
OB-05 _ 17ET 14 _ 091717 _TOM_ 12 _WB	12:30	123	16.1		
OB-05 _ 17ET 14 _ 091717 _TOM_ 13 _WB	12:30	198	68.5		
OB-05 _ 17ET 14 _ 091717 _TOM_ 14 _WB	12:30	130	18.0		
OB-05 _ 17ET 14 _ 091717 _TOM_ 15 _WB	12:30	170	35.4		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers:	Preservative:
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: MS/MSD MS/MSD Source: 05
Non-targeted Species Captured: Green Crab, Eel

Notes:

Fish sampling was conducted according to the following SOPs included in the QAPP;
SOP S-12 Fish Sampling Procedures
SOP S-13 Fish Sample Processing and Handling Procedures

Technician name (Print): KP Haywood QA/QC by:

Technician Signature: Date:

amec foster wheeler

SAMPLE COLLECTION LOG
FISH WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052.04A.4A055
Date:	091817	**Location ID:**	OB-05
Collectors:	KPH	**Collection Method (Equip):**	Other: ET
Species:	Atlantic Tomcod (TOM)	**Habitat:**	Mud Flat

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
OB-05 _ 17ET002 _ 091817 _TOM_ 16 _WB	13:00	111	12.0		
OB-05 _ 17ET003 _ 091817 _TOM_ 17 _WB	13:00	172	40.6		
OB-05 _ 17ET003 _ 091817 _TOM_ 18 _WB	13:00	115	12.5		
OB-05 _ 17ET005 _ 091817 _TOM_ 19 _WB	13:00	104	9.1		
OB-05 _ 17ET008 _ 091817 _TOM_ 20 _WB	13:00	127	16.4		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers:	Preservative:
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: None MS/MSD Source: NA
Non-targeted Species Captured: Green Crab, Eel, Other: Crayfish, Catfish

Notes:

Fish sampling was conducted according to the following SOPs included in the QAPP;
SOP S-12 Fish Sampling Procedures
SOP S-13 Fish Sample Processing and Handling Procedures

Technician name (Print): KP Haywood QA/QC by:

Technician Signature:  Date:

amec foster wheeler

SAMPLE COLLECTION LOG
FISH WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052.04A.4A055
Date:	091217	**Location ID:**	FRB-01
Collectors:	DOL	**Collection Method (Equip):**	Seine Net (SN)
Species:	Mummichog (MUM)	**Habitat:**	Mud Flat

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
FRB-01 _ 17SN001 _ 091217_MUM_ 01 _WB	15:00		6.4		C
FRB-01 _ 17SN001 _ 091217_MUM_ 02 _WB	15:00		5.9		C
FRB-01 _ 17SN001 _ 091217_MUM_ 03 _WB	15:00		5.6		C
FRB-01 _ 17SN001 _ 091217_MUM_ 04 _WB	15:00		4.4		C
FRB-01 _ 17SN001 _ 091217_MUM_ 05 _WB	15:00		4.8		C
FRB-01 _ 17SN001 _ 091217_MUM_ 06 _WB	15:00		4.1		C
FRB-01 _ 17SN001 _ 091217_MUM_ 07 _WB	15:00		4.4		C
FRB-01 _ 17SN001 _ 091217_MUM_ 08 _WB	15:00		5.9		C
FRB-01 _ 17SN001 _ 091217_MUM_ 09 _WB	15:00		4.5		C
FRB-01 _ 17SN001 _ 091217_MUM_ 10 _WB	15:00		4.1		C
FRB-01 _ 17SN001 _ 091217_MUM_ 11 _WB	15:00		4.7		C
FRB-01 _ 17SN001 _ 091217_MUM_ 12 _WB	15:00		4.2		C
FRB-01 _ 17SN001 _ 091217_MUM_ 13 _WB	15:00		4.1		C
FRB-01 _ 17SN001 _ 091217_MUM_ 14 _WB	15:00		4.4		C
FRB-01 _ 17SN001 _ 091217_MUM_ 15 _WB	15:00		4.1		C
FRB-01 _ 17SN001 _ 091217_MUM_ 16 _WB	15:00		4.5		C
FRB-01 _ 17SN001 _ 091217_MUM_ 17 _WB	15:00		4.6		C
FRB-01 _ 17SN001 _ 091217_MUM_ 18 _WB	15:00		5.1		C
FRB-01 _ 17SN001 _ 091217_MUM_ 19 _WB	15:00		5.4		C
FRB-01 _ 17SN001 _ 091217_MUM_ 20 _WB	15:00		4.5		C

Requested Analyses:

Analytes:	Methods:	Container:	# Containers:	Preservative:
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: MS/MSD MS/MSD Source: 01
Non-targeted Species Captured: Rainbow Smelt

Notes:

Fish sampling was conducted according to the following SOPs included in the QAPP;
SOP S-12 Fish Sampling Procedures
SOP S-13 Fish Sample Processing and Handling Procedures

Technician name (Print): KP Haywood QA/QC by:

Technician Signature:  Date:

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SAMPLE COLLECTION LOG
FISH WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052.04A.4A055
Date:	091817	**Location ID:**	MMMC-01
Collectors:	DL, KB	**Collection Method (Equip):**	Minnow Trap (MT)
Species:	Mummichog (MUM)	**Habitat:**	Marsh

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
MMMC-01 _ 17MT001 _ 091817_MUM_ 01 _WB	09:00	68	3.3		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers:	Preservative:
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: None
MS/MSD Source: NA
Non-targeted Species Captured: Green Crab

Notes:

Fish sampling was conducted according to the following SOPs included in the QAPP;
SOP S-12 Fish Sampling Procedures
SOP S-13 Fish Sample Processing and Handling Procedures

Technician name (Print): Jonathan Bourdeau
QA/QC by:

Technician Signature: 
Date:

amec foster wheeler

SAMPLE COLLECTION LOG
FISH WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052.04A.4A055
Date:	092017	**Location ID:**	MMMC-01
Collectors:	JB,DL	**Collection Method (Equip):**	Minnow Trap (MT)
Species:	Mummichog (MUM)	**Habitat:**	Marsh

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
MMMC-01 _ 17MT001 _ 092017_MUM_ 02 _WB	10:25	74	4.6		
MMMC-01 _ 17MT004 _ 092017_MUM_ 03 _WB	10:08	81	6.6		
MMMC-01 _ 17MT004 _ 092017_MUM_ 04 _WB	10:08	72	4.1		
MMMC-01 _ 17MT004 _ 092017_MUM_ 05 _WB	10:08	79	5.7		
MMMC-01 _ 17MT003 _ 092017_MUM_ 06 _WB	09:57	92	10.0		MS/MSD
MMMC-01 _ 17MT003 _ 092017_MUM_ 07 _WB	09:57	94	9.5		
MMMC-01 _ 17MT003 _ 092017_MUM_ 08 _WB	09:57	92	9.7		
MMMC-01 _ 17MT003 _ 092017_MUM_ 09 _WB	09:57	80	6.0		
MMMC-01 _ 17MT003 _ 092017_MUM_ 10 _WB	09:57	85	6.5		
MMMC-01 _ 17MT003 _ 092017_MUM_ 11 _WB	09:57	82	7.3		
MMMC-01 _ 17MT003 _ 092017_MUM_ 12 _WB	09:57	85	7.2		
MMMC-01 _ 17MT003 _ 092017_MUM_ 13 _WB	09:57	80	5.5		
MMMC-01 _ 17MT003 _ 092017_MUM_ 14 _WB	09:57	80	6.4		
MMMC-01 _ 17MT003 _ 092017_MUM_ 15 _WB	09:57	81	6.8		
MMMC-01 _ 17MT003 _ 092017_MUM_ 16 _WB	09:57	81	6.0		
MMMC-01 _ 17MT003 _ 092017_MUM_ 17 _WB	09:57	85	6.9		
MMMC-01 _ 17MT003 _ 092017_MUM_ 18 _WB	09:57	82	5.9		
MMMC-01 _ 17MT003 _ 092017_MUM_ 19 _WB	09:57	80	5.2		
MMMC-01 _ 17MT003 _ 092017_MUM_ 20 _WB	09:57	79	5.9		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers:	Preservative:
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: MS/MSD MS/MSD Source: 06
Non-targeted Species Captured: Green Crab, Atlantic Tomcod, Eel

Notes:

Fish sampling was conducted according to the following SOPs included in the QAPP;
SOP S-12 Fish Sampling Procedures
SOP S-13 Fish Sample Processing and Handling Procedures

Technician name (Print): Jonathan Bourdeau QA/QC by:

Technician Signature: Date:

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SAMPLE COLLECTION LOG
FISH WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052.04A.4A055
Date:	091817	**Location ID:**	OB-01
Collectors:	DL, KB	**Collection Method (Equip):**	Minnow Trap (MT)
Species:	Mummichog (MUM)	**Habitat:**	Marsh

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
OB-01 _ 17MT001 _ 091817_MUM_ 01 _WB	08:30	93	10.5		MS/MSD
OB-01 _ 17MT002 _ 091817_MUM_ 02 _WB	08:45	78	6.7		
OB-01 _ 17MT002 _ 091817_MUM_ 03 _WB	08:45	80	6.7		
OB-01 _ 17MT002 _ 091817_MUM_ 04 _WB	08:45	79	6.2		
OB-01 _ 17MT002 _ 091817_MUM_ 05 _WB	08:45	80	6.0		
OB-01 _ 17MT002 _ 091817_MUM_ 06 _WB	08:45	78	6.2		
OB-01 _ 17MT002 _ 091817_MUM_ 07 _WB	08:45	70	4.7		
OB-01 _ 17MT002 _ 091817_MUM_ 08 _WB	08:45	comp	5.8		composite 2 fish 6.3mm 3.1g, 61mm 2.7g

Requested Analyses:

Analytes:	Methods:	Container:	# Containers:	Preservative:
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: MS/MSD MS/MSD Source: 01
Non-targeted Species Captured: Green Crab, Atlantic Tomcod, Eel

Notes:

Fish sampling was conducted according to the following SOPs included in the QAPP;
SOP S-12 Fish Sampling Procedures
SOP S-13 Fish Sample Processing and Handling Procedures

Technician name (Print): Jonathan Bourdeau QA/QC by:

Technician Signature: Date:

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SAMPLE COLLECTION LOG
FISH WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052.04A.4A055
Date:	091917	**Location ID:**	OB-01
Collectors:	JB, DL	**Collection Method (Equip):**	Minnow Trap (MT)
Species:	Mummichog (MUM)	**Habitat:**	Marsh

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
OB-01 _ 17MT001 _ 091917_MUM_ 09 _WB	08:30	80	6.4		
OB-01 _ 17MT001 _ 091917_MUM_ 10 _WB	08:30	81	6.1		
OB-01 _ 17MT001 _ 091917_MUM_ 11 _WB	08:30	78	5.7		
OB-01 _ 17MT001 _ 091917_MUM_ 12 _WB	08:30	78	5.4		
OB-01 _ 17MT001 _ 091917_MUM_ 13 _WB	08:30	65	3.0		
OB-01 _ 17MT002 _ 091917_MUM_ 14 _WB	08:40	97	12.2		
OB-01 _ 17MT002 _ 091917_MUM_ 15 _WB	08:40	78	5.5		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers:	Preservative:
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: None MS/MSD Source: NA
Non-targeted Species Captured: Green Crab, Atlantic Tomcod, Eel

Notes:

Fish sampling was conducted according to the following SOPs included in the QAPP;
SOP S-12 Fish Sampling Procedures
SOP S-13 Fish Sample Processing and Handling Procedures

Technician name (Print): Jonathan Bourdeau QA/QC by:

Technician Signature: Date:

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SAMPLE COLLECTION LOG
FISH WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052.04A.4A055
Date:	091517	**Location ID:**	OB-05
Collectors:	KPH DOL	**Collection Method (Equip):**	Seine Net (SN)
Species:	Mummichog (MUM)	**Habitat:**	Rocky-Gravel

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
OB-05 _ 17SN001 _ 091517_MUM_ 01 _WB	12:20	88	8.6		
OB-05 _ 17SN001 _ 091517_MUM_ 02 _WB	12:20	87	8.1		
OB-05 _ 17SN001 _ 091517_MUM_ 03 _WB	12:20	84	7.5		
OB-05 _ 17SN001 _ 091517_MUM_ 04 _WB	12:20	89	8.2		
OB-05 _ 17SN001 _ 091517_MUM_ 05 _WB	12:20		5.2		C
OB-05 _ 17SN001 _ 091517_MUM_ 06 _WB	12:20		5.9		C
OB-05 _ 17SN001 _ 091517_MUM_ 07 _WB	12:20		5.6		C
OB-05 _ 17SN001 _ 091517_MUM_ 08 _WB	12:20		5.1		C
OB-05 _ 17SN001 _ 091517_MUM_ 09 _WB	12:20		6.8		C
OB-05 _ 17SN001 _ 091517_MUM_ 10 _WB	12:20		6.2		C
OB-05 _ 17SN001 _ 091517_MUM_ 11 _WB	12:12		6.1		C
OB-05 _ 17SN001 _ 091517_MUM_ 12 _WB	12:20		6.1		C
OB-05 _ 17SN001 _ 091517_MUM_ 13 _WB	12:20		5.9		C
OB-05 _ 17SN001 _ 091517_MUM_ 14 _WB	12:20		4.1		C
OB-05 _ 17SN001 _ 091517_MUM_ 15 _WB	12:20		6.0		C
OB-05 _ 17SN001 _ 091517_MUM_ 16 _WB	12:20		5.8		C
OB-05 _ 17SN001 _ 091517_MUM_ 17 _WB	12:20		5.5		C
OB-05 _ 17SN001 _ 091517_MUM_ 18 _WB	12:20		7.1		C
OB-05 _ 17SN001 _ 091517_MUM_ 19 _WB	12:20		5.9		C
OB-05 _ 17SN001 _ 091517_MUM_ 20 _WB	12:20		12.1		C, MSMSD

Requested Analyses:

Analytes:	Methods:	Container:	# Containers:	Preservative:
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: MS/MSD MS/MSD Source: 20
Non-targeted Species Captured: Rainbow Smelt

Notes:

Fish sampling was conducted according to the following SOPs included in the QAPP;
SOP S-12 Fish Sampling Procedures
SOP S-13 Fish Sample Processing and Handling Procedures

Technician name (Print): KP Haywood QA/QC by:

Technician Signature:  Date:

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SAMPLE COLLECTION LOG
FISH WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052.04A.4A055
Date:	091417	**Location ID:**	ES-13
Collectors:	KPH DOL	**Collection Method (Equip):**	Seine Net (SN)
Species:	Rainbow Smelt (RAS)	**Habitat:**	Mud Flat, Woodchips

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
ES-13 _ 17SN _ 091417 _RAS_ 01 _WB	16:00		6.8		
ES-13 _ 17SN _ 091417 _RAS_ 02 _WB	16:00	109	7.9		MSMSD
ES-13 _ 17SN _ 091417 _RAS_ 03 _WB	16:00		7.1		
ES-13 _ 17SN _ 091417 _RAS_ 04 _WB	16:00		6.9		
ES-13 _ 17SN _ 091417 _RAS_ 05 _WB	16:00		9.7		
ES-13 _ 17SN _ 091417 _RAS_ 06 _WB	16:00	115	8.1		
ES-13 _ 17SN _ 091417 _RAS_ 07 _WB	16:00		6.5		
ES-13 _ 17SN _ 091417 _RAS_ 08 _WB	16:00		7.7		
ES-13 _ 17SN _ 091417 _RAS_ 09 _WB	16:00		6.2		
ES-13 _ 17SN _ 091417 _RAS_ 10 _WB	16:00		6.2		
ES-13 _ 17SN _ 091417 _RAS_ 11 _WB	16:00		8.7		
ES-13 _ 17SN _ 091417 _RAS_ 12 _WB	16:00		7.9		
ES-13 _ 17SN _ 091417 _RAS_ 13 _WB	16:00		7.7		
ES-13 _ 17SN _ 091417 _RAS_ 14 _WB	16:00		8.2		
ES-13 _ 17SN _ 091417 _RAS_ 15 _WB	16:00		8.7		
ES-13 _ 17SN _ 091417 _RAS_ 16 _WB	16:00		9.2		
ES-13 _ 17SN _ 091417 _RAS_ 17 _WB	16:00		8.5		
ES-13 _ 17SN _ 091417 _RAS_ 18 _WB	16:00		8.2		
ES-13 _ 17SN _ 091417 _RAS_ 19 _WB	16:00		7.8		
ES-13 _ 17SN _ 091417 _RAS_ 20 _WB	16:00		6.5		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers:	Preservative:
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: MS/MSD MS/MSD Source: 02
Non-targeted Species Captured: Green Crab,NA

Notes:

Fish sampling was conducted according to the following SOPs included in the QAPP;
SOP S-12 Fish Sampling Procedures
SOP S-13 Fish Sample Processing and Handling Procedures

Technician name (Print): KP Haywood QA/QC by:

Technician Signature: Date:

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SAMPLE COLLECTION LOG
FISH WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052.04A.4A055
Date:	091417	**Location ID:**	ES-FP
Collectors:	KPH DOL	**Collection Method (Equip):**	Seine Net (SN)
Species:	Rainbow Smelt (RAS)	**Habitat:**	Mud Flat

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
ES-FP _ 17SN _ 091417 _RAS_ 01 _WB	14:00	125	11.0		MSMSD
ES-FP _ 17SN _ 091417 _RAS_ 02 _WB	14:00	123	10.2		
ES-FP _ 17SN _ 091417 _RAS_ 03 _WB	14:00	110	9.4		
ES-FP _ 17SN _ 091417 _RAS_ 04 _WB	14:00	116	8.7		
ES-FP _ 17SN _ 091417 _RAS_ 05 _WB	14:00	117	9.3		
ES-FP _ 17SN _ 091417 _RAS_ 06 _WB	14:00	111	8.0		
ES-FP _ 17SN _ 091417 _RAS_ 07 _WB	14:00	116	8.5		
ES-FP _ 17SN _ 091417 _RAS_ 08 _WB	14:00	116	8.1		
ES-FP _ 17SN _ 091417 _RAS_ 09 _WB	14:00	111	7.4		
ES-FP _ 17SN _ 091417 _RAS_ 10 _WB	14:00	112	7.5		
ES-FP _ 17SN _ 091417 _RAS_ 11 _WB	14:00	116	9.6		
ES-FP _ 17SN _ 091417 _RAS_ 12 _WB	14:00		7.8		
ES-FP _ 17SN _ 091417 _RAS_ 13 _WB	14:00		9.7		
ES-FP _ 17SN _ 091417 _RAS_ 14 _WB	14:00		10.2		
ES-FP _ 17SN _ 091417 _RAS_ 15 _WB	14:00		9.8		
ES-FP _ 17SN _ 091417 _RAS_ 16 _WB	14:00		8.1		
ES-FP _ 17SN _ 091417 _RAS_ 17 _WB	14:00		10.0		
ES-FP _ 17SN _ 091417 _RAS_ 18 _WB	14:00		7.2		
ES-FP _ 17SN _ 091417 _RAS_ 19 _WB	14:00		7.7		
ES-FP _ 17SN _ 091417 _RAS_ 20 _WB	14:00	111	6.8		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers:	Preservative:
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: MS/MSD
MS/MSD Source: 01
Non-targeted Species Captured: Green Crab

Notes:

Fish sampling was conducted according to the following SOPs included in the QAPP;
SOP S-12 Fish Sampling Procedures
SOP S-13 Fish Sample Processing and Handling Procedures

Technician name (Print): KP Haywood
QA/QC by:

Technician Signature: 
Date:

amec foster wheeler

SAMPLE COLLECTION LOG
FISH WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052.04A.4A055
Date:	091217	**Location ID:**	FRB-01
Collectors:	DOL	**Collection Method (Equip):**	Seine Net (SN)
Species:	Rainbow Smelt (RAS)	**Habitat:**	Mud Flat

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
FRB-01 _ 17SN001 _ 091217 _RAS_ 01 _WB	14:00	115	8.1		
FRB-01 _ 17SN001 _ 091217 _RAS_ 02 _WB	14:00	120	9.5		MSMSD
FRB-01 _ 17SN001 _ 091217 _RAS_ 03 _WB	14:00		6.6		C
FRB-01 _ 17SN001 _ 091217 _RAS_ 04 _WB	14:00	112	7.8		
FRB-01 _ 17SN001 _ 091217 _RAS_ 05 _WB	14:00		7.5		C
FRB-01 _ 17SN001 _ 091217 _RAS_ 06 _WB	14:00	116	8.4		
FRB-01 _ 17SN001 _ 091217 _RAS_ 07 _WB	14:00	109	6.4		
FRB-01 _ 17SN001 _ 091217 _RAS_ 08 _WB	14:00	118	9.0		
FRB-01 _ 17SN001 _ 091217 _RAS_ 09 _WB	14:00		6.3		C
FRB-01 _ 17SN001 _ 091217 _RAS_ 10 _WB	14:00		8.5		C
FRB-01 _ 17SN001 _ 091217 _RAS_ 11 _WB	14:00		7.3		C
FRB-01 _ 17SN001 _ 091217 _RAS_ 12 _WB	14:00	105	5.8		
FRB-01 _ 17SN001 _ 091217 _RAS_ 13 _WB	14:00		7.8		C
FRB-01 _ 17SN001 _ 091217 _RAS_ 14 _WB	14:00	105	5.8		
FRB-01 _ 17SN001 _ 091217 _RAS_ 15 _WB	14:00		6.9		C
FRB-01 _ 17SN001 _ 091217 _RAS_ 16 _WB	14:00	103	6.0		
FRB-01 _ 17SN001 _ 091217 _RAS_ 17 _WB	14:00		6.0		C
FRB-01 _ 17SN001 _ 091217 _RAS_ 18 _WB	14:00		7.3		C
FRB-01 _ 17SN001 _ 091217 _RAS_ 19 _WB	14:00		7.9		C
FRB-01 _ 17SN001 _ 091217 _RAS_ 20 _WB	14:00	95	5.2		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers:	Preservative:
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: MS/MSD
MS/MSD Source: 02
Non-targeted Species Captured: Green Crab

Notes:

Fish sampling was conducted according to the following SOPs included in the QAPP;
SOP S-12 Fish Sampling Procedures
SOP S-13 Fish Sample Processing and Handling Procedures

Technician name (Print): KP Haywood
QA/QC by:

Technician Signature: 
Date:

amec foster wheeler

SAMPLE COLLECTION LOG
FISH WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052.04A.4A055
Date:	091617	**Location ID:**	OB-01
Collectors:	KPH DOL	**Collection Method (Equip):**	Seine Net (SN)
Species:	Rainbow Smelt (RAS)	**Habitat:**	Mud Flat, Rocky-Gravel

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
OB-01 _ 17SN001 _ 091617 _RAS_ 01 _WB	11:00	140	15.5		NOAA
OB-01 _ 17SN001 _ 091617 _RAS_ 02 _WB	11:00	144	15.5		NOAA
OB-01 _ 17SN001 _ 091617 _RAS_ 03 _WB	11:00	132	12.3		NOAA
OB-01 _ 17SN001 _ 091617 _RAS_ 04 _WB	11:00	141	14.4		NOAA
OB-01 _ 17SN001 _ 091617 _RAS_ 05 _WB	11:00	148	18.7		NOAA
OB-01 _ 17SN001 _ 091617 _RAS_ 06 _WB	11:00	131	12.4		NOAA
OB-01 _ 17SN001 _ 091617 _RAS_ 07 _WB	11:00		5.9		C
OB-01 _ 17SN001 _ 091617 _RAS_ 08 _WB	11:00		6.2		C
OB-01 _ 17SN001 _ 091617 _RAS_ 09 _WB	11:00		5.3		C
OB-01 _ 17SN001 _ 091617 _RAS_ 10 _WB	11:00		5.3		C
OB-01 _ 17SN001 _ 091617 _RAS_ 11 _WB	11:00		7.4		C
OB-01 _ 17SN001 _ 091617 _RAS_ 12 _WB	11:00		5.7		C
OB-01 _ 17SN001 _ 091617 _RAS_ 13 _WB	11:00		5.4		C
OB-01 _ 17SN001 _ 091617 _RAS_ 14 _WB	11:00		4.7		C
OB-01 _ 17SN001 _ 091617 _RAS_ 15 _WB	11:00		5.6		C
OB-01 _ 17SN001 _ 091617 _RAS_ 16 _WB	11:00		5.7		C
OB-01 _ 17SN001 _ 091617 _RAS_ 17 _WB	11:00		5.7		C
OB-01 _ 17SN001 _ 091617 _RAS_ 18 _WB	11:00		5.5		C
OB-01 _ 17SN001 _ 091617 _RAS_ 19 _WB	11:00		4.6		C
OB-01 _ 17SN001 _ 091617 _RAS_ 20 _WB	11:00		4.5		C

Requested Analyses:

Analytes:	Methods:	Container:	# Containers:	Preservative:
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: MS/MSD MS/MSD Source: 01
Non-targeted Species Captured: Green Crab

Notes:

Fish sampling was conducted according to the following SOPs included in the QAPP;
SOP S-12 Fish Sampling Procedures
SOP S-13 Fish Sample Processing and Handling Procedures

Technician name (Print): KP Haywood QA/QC by:

Technician Signature: Date:

amec foster wheeler

SAMPLE COLLECTION LOG
FISH WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052.04A.4A055
Date:	091517	**Location ID:**	OB-05
Collectors:	KPH DOL	**Collection Method (Equip):**	Seine Net (SN)
Species:	Rainbow Smelt (RAS)	**Habitat:**	Rocky-Gravel

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
OB-05 _ 17SN001 _ 091517 _RAS_ 01 _WB	12:20		5.6		C
OB-05 _ 17SN001 _ 091517 _RAS_ 02 _WB	12:20		7.4		C, MSMSD

Requested Analyses:

Analytes:	Methods:	Container:	# Containers:	Preservative:
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: MS/MSD MS/MSD Source: 02
Non-targeted Species Captured: Mummichog

Notes:

Fish sampling was conducted according to the following SOPs included in the QAPP;
SOP S-12 Fish Sampling Procedures
SOP S-13 Fish Sample Processing and Handling Procedures

Technician name (Print): KP Haywood QA/QC by:

Technician Signature: Date:

Lobster Field Data Records

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SAMPLE COLLECTION LOG
LOBSTER TAILS

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	091317	**Location ID:**	CJ
Collectors:	JAB	**Collection Method (Equip):**	Commercial Lobsterman

Sample ID	Time	Length (mm)	Weight (kg)	Sex F/M	Size	Photo Y/N	Notes
CJ _ 17LT001 _ 091317 _LOB_ 01 _TA	13:26	85	0.54	F	Legal		MS/MSD
CJ _ 17LT001 _ 091317 _LOB_ 02 _TA	13:26	96	0.69	M	Legal		
CJ _ 17LT001 _ 091317 _LOB_ 03 _TA	13:26	106	1.17	M	Legal		
CJ _ 17LT001 _ 091317 _LOB_ 04 _TA	13:26	104	1.15	M	Legal		
CJ _ 17LT001 _ 091317 _LOB_ 05 _TA	13:26	100	0.87	F	Legal		
CJ _ 17LT002 _ 091317 _LOB_ 06 _TA	13:36	82	0.49	M	Sublegal		
CJ _ 17LT002 _ 091317 _LOB_ 07 _TA	13:36	103	0.91	M	Legal		
CJ _ 17LT003 _ 091317 _LOB_ 08 _TA	13:41	95	0.75	M	Legal		
CJ _ 17LT003 _ 091317 _LOB_ 09 _TA	13:41	111	1.17	M	Legal		
CJ _ 17LT003 _ 091317 _LOB_ 10 _TA	13:41	110	1.27	M	Legal		
CJ _ 17LT004 _ 091317 _LOB_ 11 _TA	13:58	88	0.53	M	Legal		
CJ _ 17LT004 _ 091317 _LOB_ 12 _TA	13:58	105	1.05	M	Legal		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Dry Ice
QC Collected: MS/MSD MS/MSD Source: 01
Non-targeted Species Captured: Peekytoe Crab

Notes:

Lobster sampling was conducted according to the following SOPs included in the QAPP;
SOP S-14 Shellfish Sampling

Technician name (Print): Jonathan Bourdeau QA/QC by: _____

Technician Signature: _____ Date: _____

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SAMPLE COLLECTION LOG
LOBSTER TAILS

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	091517	**Location ID:**	CJ
Collectors:	JAB	**Collection Method (Equip):**	Commercial Lobsterman

Sample ID	Time	Length (cm)	Weight (lbs)	Sex F/M	Size	Photo Y/N	Notes
CJ _ 17LT048 _ 091517 _LOB_ 13 _TA	08:17	96	0.7	M	Legal		
CJ _ 17LT048 _ 091517 _LOB_ 14 _TA	08:17	86	0.55	F	Legal		
CJ _ 17LT047 _ 091517 _LOB_ 15 _TA	08:24	107	1.23	M	Legal		
CJ _ 17LT047 _ 091517 _LOB_ 16 _TA	08:24	101	0.89	M	Legal		
CJ _ 17LT047 _ 091517 _LOB_ 17 _TA	08:24	105	0.96	M	Legal		
CJ _ 17LT047 _ 091517 _LOB_ 18 _TA	08:24	86	0.48	M	Legal		
CJ _ 17LT044 _ 091517 _LOB_ 19 _TA	08:32	95	0.7	M	Legal		
CJ _ 17LT044 _ 091517 _LOB_ 20 _TA	08:32	84	0.53	F	Legal		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Dry Ice
QC Collected: None
MS/MSD Source: NA
Non-targeted Species Captured: Peekytoe Crab

Notes:

Lobster sampling was conducted according to the following SOPs included in the QAPP;
SOP S-14 Shellfish Sampling

Technician name (Print): Jonathan Bourdeau
QA/QC by:

Technician Signature:
Date:

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SAMPLE COLLECTION LOG
LOBSTER TAILS

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	091417	**Location ID:**	FBJR
Collectors:	JAB	**Collection Method (Equip):**	Commercial Lobsterman

Sample ID	Time	Length (mm)	Weight (kg)	Sex F/M	Size	Photo Y/N	Notes
FBJR _ 17LT024 _ 091417 _LOB_ 01 _TA	09:47	85	0.43	M	Legal		MS/MSD
FBJR _ 17LT024 _ 091417 _LOB_ 02 _TA	09:47	83	0.45	F	Legal		
FBJR _ 17LT024 _ 091417 _LOB_ 03 _TA	09:47	86	0.51	M	Legal		
FBJR _ 17LT024 _ 091417 _LOB_ 04 _TA	09:47	87	0.51	M	Legal		
FBJR _ 17LT025 _ 091417 _LOB_ 05 _TA	10:00	87	0.49	M	Legal		
FBJR _ 17LT025 _ 091417 _LOB_ 06 _TA	10:00	84	0.49	M	Legal		
FBJR _ 17LT026 _ 091417 _LOB_ 07 _TA	10:10	93	0.59	M	Legal		
FBJR _ 17LT026 _ 091417 _LOB_ 08 _TA	10:10	90	0.52	M	Legal		
FBJR _ 17LT026 _ 091417 _LOB_ 09 _TA	10:10	89	0.61	F	Legal		
FBJR _ 17LT026 _ 091417 _LOB_ 10 _TA	10:10	87	0.51	M	Legal		
FBJR _ 17LT027 _ 091417 _LOB_ 11 _TA	10:17	100	0.81	M	Legal		
FBJR _ 17LT027 _ 091417 _LOB_ 12 _TA	10:17	96	0.72	M	Legal		
FBJR _ 17LT027 _ 091417 _LOB_ 13 _TA	10:17	87	0.59	F	Legal		
FBJR _ 17LT027 _ 091417 _LOB_ 14 _TA	10:17	84	0.47	F	Legal		Missing 1 claw
FBJR _ 17LT027 _ 091417 _LOB_ 15 _TA	10:17	87	0.53	F	Legal		
FBJR _ 17LT027 _ 091417 _LOB_ 16 _TA	10:17	85	0.48	M	Legal		
FBJR _ 17LT027 _ 091417 _LOB_ 17 _TA	10:17	84	0.49	F	Legal		
FBJR _ 17LT028 _ 091417 _LOB_ 18 _TA	10:26	87	0.53	F	Legal		
FBJR _ 17LT028 _ 091417 _LOB_ 19 _TA	10:26	83	0.48	M	Legal		
FBJR _ 17LT028 _ 091417 _LOB_ 20 _TA	10:26	90	0.67	F	Legal		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Dry Ice
QC Collected: MS/MSD MS/MSD Source: 01
Non-targeted Species Captured: Green Crab, Peekytoe Crab

Notes:

Lobster sampling was conducted according to the following SOPs included in the QAPP;
SOP S-14 Shellfish Sampling

Technician name (Print): Jonathan Bourdeau QA/QC by: _____

Technician Signature: _____ Date: _____

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SAMPLE COLLECTION LOG
LOBSTER TAILS

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	091317	**Location ID:**	HB-01
Collectors:	JAB	**Collection Method (Equip):**	Commercial Lobsterman

Sample ID	Time	Length (mm)	Weight (kg)	Sex F/M	Size	Photo Y/N	Notes
HB-01 _ 17LT019 _ 091317 _LOB_ 01 _TA	07:45	82	0.49	F	Sublegal		MS/MSD
HB-01 _ 17LT021 _ 091317 _LOB_ 02 _TA	07:55	87	0.57	F	Legal		
HB-01 _ 17LT022 _ 091317 _LOB_ 03 _TA	08:00	90	0.6	M	Legal		
HB-01 _ 17LT022 _ 091317 _LOB_ 04 _TA	08:00	84	0.45	M	Legal		
HB-01 _ 17LT022 _ 091317 _LOB_ 05 _TA	08:00	75	0.37	M	Sublegal		
HB-01 _ 17LT023 _ 091317 _LOB_ 06 _TA	08:08	88	0.56	F	Legal		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Dry Ice
QC Collected: MS/MSD MS/MSD Source: 01
Non-targeted Species Captured: Peekytoe Crab

Notes:

Lobster sampling was conducted according to the following SOPs included in the QAPP;
SOP S-14 Shellfish Sampling

Technician name (Print): Jonathan Bourdeau QA/QC by:

Technician Signature: Date:

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SAMPLE COLLECTION LOG
LOBSTER TAILS

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	091517	**Location ID:**	HB-01
Collectors:	JAB	**Collection Method (Equip):**	Commercial Lobsterman

Sample ID	Time	Length (cm)	Weight (lbs)	Sex F/M	Size	Photo Y/N	Notes
HB-01 _ 17LT034 _ 091517 _LOB_ 07 _TA	13:16	107	1.1	M	Legal		
HB-01 _ 17LT034 _ 091517 _LOB_ 08 _TA	13:16	80	0.5	M	Sublegal		
HB-01 _ 17LT034 _ 091517 _LOB_ 09 _TA	13:16	79	0.44	F	Sublegal		
HB-01 _ 17LT036 _ 091517 _LOB_ 10 _TA	13:31	87	0.55	M	Legal		
HB-01 _ 17LT036 _ 091517 _LOB_ 11 _TA	13:31	96	0.75	M	Legal		
HB-01 _ 17LT036 _ 091517 _LOB_ 12 _TA	13:31	87	0.48	M	Legal		
HB-01 _ 17LT036 _ 091517 _LOB_ 13 _TA	13:31	82	0.48	F	Sublegal		
HB-01 _ 17LT049 _ 091517 _LOB_ 14 _TA	13:51	91	0.57	M	Legal		
HB-01 _ 17LT049 _ 091517 _LOB_ 15 _TA	13:51	86	0.51	M	Legal		
HB-01 _ 17LT050 _ 091517 _LOB_ 16 _TA	13:58	96	0.86	M	Legal		
HB-01 _ 17LT052 _ 091517 _LOB_ 17 _TA	14:07	86	0.57	F			
HB-01 _ 17LT052 _ 091517 _LOB_ 18 _TA	14:07	98	0.8	M			
HB-01 _ 17LT052 _ 091517 _LOB_ 19 _TA	14:07	84	0.46	M			
HB-01 _ 17LT052 _ 091517 _LOB_ 20 _TA	14:07	84	0.45	M			

Requested Analyses:

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Dry Ice
QC Collected: None MS/MSD Source: NA
Non-targeted Species Captured: Green Crab, Peekytoe Crab

Notes:

Lobster sampling was conducted according to the following SOPs included in the QAPP;
SOP S-14 Shellfish Sampling

Technician name (Print): Jonathan Bourdeau QA/QC by: _____

Technician Signature: _____ Date: _____

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SAMPLE COLLECTION LOG
LOBSTER TAILS

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	091317	**Location ID:**	L9-45
Collectors:	JAB	**Collection Method (Equip):**	Commercial Lobsterman

Sample ID	Time	Length (mm)	Weight (kg)	Sex F/M	Size	Photo Y/N	Notes
L9-45 _ 17LT015 _ 091317 _LOB_ 01 _TA	08:56	99	0.81	M	Legal		MS/MSD
L9-45 _ 17LT015 _ 091317 _LOB_ 02 _TA	08:56	114	1.47	M	Legal		
L9-45 _ 17LT015 _ 091317 _LOB_ 03 _TA	08:56	93	0.73	M	Legal		
L9-45 _ 17LT015 _ 091317 _LOB_ 04 _TA	08:56	112	1.24	M	Legal		
L9-45 _ 17LT015 _ 091317 _LOB_ 05 _TA	08:56	96	0.76	M	Legal		
L9-45 _ 17LT015 _ 091317 _LOB_ 06 _TA	08:56	95	0.79	F	Legal		
L9-45 _ 17LT015 _ 091317 _LOB_ 07 _TA	08:56	105	1.18	M	Legal		
L9-45 _ 17LT015 _ 091317 _LOB_ 08 _TA	08:56	117	1.5	M	Legal		
L9-45 _ 17LT016 _ 091317 _LOB_ 09 _TA	09:13	86	0.46	F	Legal		
L9-45 _ 17LT016 _ 091317 _LOB_ 10 _TA	09:13	115	1.17	M	Legal		
L9-45 _ 17LT016 _ 091317 _LOB_ 11 _TA	09:13	97	0.75	M	Legal		
L9-45 _ 17LT016 _ 091317 _LOB_ 12 _TA	09:13	98	0.88	M	Legal		
L9-45 _ 17LT016 _ 091317 _LOB_ 13 _TA	09:13	95	0.71	M	Legal		
L9-45 _ 17LT016 _ 091317 _LOB_ 14 _TA	09:13	101	0.92	M	Legal		
L9-45 _ 17LT017 _ 091317 _LOB_ 15 _TA	09:25	83	0.53	M	Legal		
L9-45 _ 17LT017 _ 091317 _LOB_ 16 _TA	09:25	114	1.31	M	Legal		
L9-45 _ 17LT017 _ 091317 _LOB_ 17 _TA	09:25	87	0.49	M	Legal		
L9-45 _ 17LT017 _ 091317 _LOB_ 18 _TA	09:25	83	0.46	M	Legal		
L9-45 _ 17LT018 _ 091317 _LOB_ 19 _TA	09:33	90	0.55	M	Legal		
L9-45 _ 17LT018 _ 091317 _LOB_ 20 _TA	09:33	88	0.6	M	Legal		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Dry Ice
QC Collected: MS/MSD MS/MSD Source: 01
Non-targeted Species Captured: Peekytoe Crab

Notes:

Lobster sampling was conducted according to the following SOPs included in the QAPP;
SOP S-14 Shellfish Sampling

Technician name (Print): Jonathan Bourdeau QA/QC by: _____

Technician Signature: _____ Date: _____

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SAMPLE COLLECTION LOG
LOBSTER TAILS

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	091317	**Location ID:**	L10-52
Collectors:	JAB	**Collection Method (Equip):**	Commercial Lobsterman

Sample ID	Time	Length (mm)	Weight (kg)	Sex F/M	Size	Photo Y/N	Notes
L10-52 _ 17LT006 _ 091317 _LOB_ 01 _TA	10:08	101	0.78	M	Legal		MS/MSD
L10-52 _ 17LT006 _ 091317 _LOB_ 02 _TA	10:08	101	0.77	F	Legal		
L10-52 _ 17LT006 _ 091317 _LOB_ 03 _TA	10:08	94	0.78	M	Legal		
L10-52 _ 17LT006 _ 091317 _LOB_ 04 _TA	10:08	90	0.5	M	Legal		
L10-52 _ 17LT006 _ 091317 _LOB_ 05 _TA	10:08	93	0.67	M	Legal		
L10-52 _ 17LT006 _ 091317 _LOB_ 06 _TA	10:08	101	0.84	M	Legal		
L10-52 _ 17LT007 _ 091317 _LOB_ 07 _TA	10:20	131	2.18	M	Oversized		
L10-52 _ 17LT007 _ 091317 _LOB_ 08 _TA	10:20	86	0.54	M	Legal		
L10-52 _ 17LT007 _ 091317 _LOB_ 09 _TA	10:20	112	1.2	M	Legal		
L10-52 _ 17LT008 _ 091317 _LOB_ 10 _TA	10:37	104	0.8	M	Legal		
L10-52 _ 17LT008 _ 091317 _LOB_ 11 _TA	10:37	106	1.0	M	Legal		
L10-52 _ 17LT008 _ 091317 _LOB_ 12 _TA	10:37	94	0.72	F	Legal		
L10-52 _ 17LT009 _ 091317 _LOB_ 13 _TA	10:46	96	0.75	F	Legal		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Dry Ice
QC Collected: MS/MSD MS/MSD Source: 01
Non-targeted Species Captured: Peekytoe Crab

Notes:

Lobster sampling was conducted according to the following SOPs included in the QAPP;
SOP S-14 Shellfish Sampling

Technician name (Print): Jonathan Bourdeau QA/QC by: _____

Technician Signature: _____ Date: _____

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SAMPLE COLLECTION LOG
LOBSTER TAILS

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	091517	**Location ID:**	L10-52
Collectors:	JAB	**Collection Method (Equip):**	Commercial Lobsterman

Sample ID	Time	Length (cm)	Weight (lbs)	Sex F/M	Size	Photo Y/N	Notes
L10-52 _ 17LT041 _ 091517 _LOB_ 14 _TA	11:57	70	0.29	M	Sublegal		
L10-52 _ 17LT041 _ 091517 _LOB_ 15 _TA	11:57	90	0.58	M	Legal		
L10-52 _ 17LT041 _ 091517 _LOB_ 16 _TA	11:57	92	0.69	M	Legal		
L10-52 _ 17LT042 _ 091517 _LOB_ 17 _TA	12:05	102	0.88	F	Legal		
L10-52 _ 17LT040 _ 091517 _LOB_ 18 _TA	12:12	107	1.13	M	Legal		
L10-52 _ 17LT040 _ 091517 _LOB_ 19 _TA	12:12	122	1.65	M	Legal		
L10-52 _ 17LT040 _ 091517 _LOB_ 20 _TA	12:12	119	1.53	M	Legal		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Dry Ice
QC Collected: None
MS/MSD Source: NA
Non-targeted Species Captured: Peekytoe Crab

Notes:

Lobster sampling was conducted according to the following SOPs included in the QAPP;
SOP S-14 Shellfish Sampling

Technician name (Print): Jonathan Bourdeau
QA/QC by:

Technician Signature:
Date:

amec foster wheeler

SAMPLE COLLECTION LOG
LOBSTER TAILS

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	091317	**Location ID:**	SVE-01
Collectors:	JAB	**Collection Method (Equip):**	Commercial Lobsterman

Sample ID	Time	Length (mm)	Weight (kg)	Sex F/M	Size	Photo Y/N	Notes
SVE-01 _ 17LT011 _ 091317 _LOB_ 01 _TA	11:26	102	0.9	M	Legal		MS/MSD
SVE-01 _ 17LT011 _ 091317 _LOB_ 02 _TA	11:26	102	0.86	M	Legal		
SVE-01 _ 17LT011 _ 091317 _LOB_ 03 _TA	11:26	96	0.88	M	Legal		
SVE-01 _ 17LT011 _ 091317 _LOB_ 04 _TA	11:26	86	0.45	M	Legal		
SVE-01 _ 17LT011 _ 091317 _LOB_ 05 _TA	11:26	97	0.72	M	Legal		
SVE-01 _ 17LT011 _ 091317 _LOB_ 06 _TA	11:26	104	0.93	M	Legal		
SVE-01 _ 17LT011 _ 091317 _LOB_ 07 _TA	11:26	108	1.05	M	Legal		
SVE-01 _ 17LT011 _ 091317 _LOB_ 08 _TA	11:26	109	1.01	M	Legal		
SVE-01 _ 17LT012 _ 091317 _LOB_ 09 _TA	11:42	115	1.43	M	Legal		
SVE-01 _ 17LT012 _ 091317 _LOB_ 10 _TA	11:42	84	0.46	M	Legal		
SVE-01 _ 17LT012 _ 091317 _LOB_ 11 _TA	11:42	84	0.48	M	Legal		
SVE-01 _ 17LT013 _ 091317 _LOB_ 12 _TA	11:50	99	0.89	M	Legal		
SVE-01 _ 17LT013 _ 091317 _LOB_ 13 _TA	11:50	109	0.97	M	Legal		
SVE-01 _ 17LT013 _ 091317 _LOB_ 14 _TA	11:50	106	1.04	M	Legal		
SVE-01 _ 17LT013 _ 091317 _LOB_ 15 _TA	11:50	102	0.85	M	Legal		
SVE-01 _ 17LT013 _ 091317 _LOB_ 16 _TA	11:50	116	1.28	M	Legal		
SVE-01 _ 17LT014 _ 091317 _LOB_ 17 _TA	12:01	124	1.91	M	Legal		
SVE-01 _ 17LT014 _ 091317 _LOB_ 18 _TA	12:01	114	1.22	M	Legal		
SVE-01 _ 17LT014 _ 091317 _LOB_ 19 _TA	12:01	100	0.83	M	Legal		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Dry Ice
QC Collected: MS/MSD MS/MSD Source: 01
Non-targeted Species Captured: Peekytoe Crab, Atlantic Tomcod

Notes:

Lobster sampling was conducted according to the following SOPs included in the QAPP;
SOP S-14 Shellfish Sampling

Technician name (Print): Jonathan Bourdeau QA/QC by:

Technician Signature: Date:

amec foster wheeler

SAMPLE COLLECTION LOG
LOBSTER TAILS

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	091517	**Location ID:**	SVE-01
Collectors:	JAB	**Collection Method (Equip):**	Commercial Lobsterman

Sample ID	Time	Length (cm)	Weight (lbs)	Sex F/M	Size	Photo Y/N	Notes
SVE-01 _ 17LT043 _ 091517 _LOB_ 20 _TA	11:41	96	0.7	M	Legal		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Dry Ice
QC Collected: None MS/MSD Source: NA
Non-targeted Species Captured: Peekytoe Crab

Notes:

Lobster sampling was conducted according to the following SOPs included in the QAPP;
SOP S-14 Shellfish Sampling

Technician name (Print): Jonathan Bourdeau QA/QC by: _____

Technician Signature: _____ Date: _____

Mussel Field Data Records

amec foster wheeler

SAMPLE COLLECTION LOG
MUSSEL WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	091917	**Location ID:**	ES-03
Collectors:	JB, PH, DL	**Collection Method (Equip):**	Hand Collection - Intertidal Rocks
		Habitat:	Rocky-Gravel

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
ES-03 _ 17HC001 _ 091917 _BLM_ 01 _WB	16:45	64.0	35.7		MS/MSD
ES-03 _ 17HC001 _ 091917 _BLM_ 02 _WB	16:45	65.0	34.1		
ES-03 _ 17HC001 _ 091917 _BLM_ 03 _WB	16:45	70.0	46.9		
ES-03 _ 17HC001 _ 091917 _BLM_ 04 _WB	16:45	67.0	33.8		
ES-03 _ 17HC001 _ 091917 _BLM_ 05 _WB	16:45	64.0	31.5		
ES-03 _ 17HC001 _ 091917 _BLM_ 06 _WB	16:45	70.0	43.8		
ES-03 _ 17HC001 _ 091917 _BLM_ 07 _WB	16:45	69.0	45.5		
ES-03 _ 17HC001 _ 091917 _BLM_ 08 _WB	16:45	66.0	40.3		
ES-03 _ 17HC001 _ 091917 _BLM_ 09 _WB	16:45	62.0	28.4		
ES-03 _ 17HC001 _ 091917 _BLM_ 10 _WB	16:45	65.0	32.1		
ES-03 _ 17HC001 _ 091917 _BLM_ 11 _WB	16:45	63.0	39.1		
ES-03 _ 17HC001 _ 091917 _BLM_ 12 _WB	16:45	58.0	30.1		
ES-03 _ 17HC001 _ 091917 _BLM_ 13 _WB	16:45	62.0	28.6		
ES-03 _ 17HC001 _ 091917 _BLM_ 14 _WB	16:45	55.0	26.2		
ES-03 _ 17HC001 _ 091917 _BLM_ 15 _WB	16:45	61.0	30.9		
ES-03 _ 17HC001 _ 091917 _BLM_ 16 _WB	16:45	62.0	40.7		
ES-03 _ 17HC001 _ 091917 _BLM_ 17 _WB	16:45	56.0	29.0		
ES-03 _ 17HC001 _ 091917 _BLM_ 18 _WB	16:45	65.0	35.6		
ES-03 _ 17HC001 _ 091917 _BLM_ 19 _WB	16:45	60.0	27.5		
ES-03 _ 17HC001 _ 091917 _BLM_ 20 _WB	16:45	60.0	26.8		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Wet Ice

QC Collected: MS/MSD MS/MSD Source: 01

Notes:

Mussel sampling was conducted according to the following SOPs included in the QAPP;
SOP S-14 Shellfish Sampling

Technician name (Print): Jonathan Bourdeau QA/QC by: _____

Technician Signature:  Date: _____

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SAMPLE COLLECTION LOG
MUSSEL WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	091417	**Location ID:**	ES-13
Collectors:	KPH DOL	**Collection Method (Equip):**	Hand Collection - Intertidal Rocks
		Habitat:	Mud Flat,Rocky-Gravel,Woodchips

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
ES-13 _ 17HC _ 091417 _BLM_ 01 _WB	12:45		55.3		
ES-13 _ 17HC _ 091417 _BLM_ 02 _WB	12:45		47.5		
ES-13 _ 17HC _ 091417 _BLM_ 03 _WB	12:45		59.9		
ES-13 _ 17HC _ 091417 _BLM_ 04 _WB	12:45		67.3		
ES-13 _ 17HC _ 091417 _BLM_ 05 _WB	12:45		53.5		
ES-13 _ 17HC _ 091417 _BLM_ 06 _WB	12:45		46.8		
ES-13 _ 17HC _ 091417 _BLM_ 07 _WB	12:45		38.5		
ES-13 _ 17HC _ 091417 _BLM_ 08 _WB	12:45		72.6		MSMSD
ES-13 _ 17HC _ 091417 _BLM_ 09 _WB	12:45		39.9		
ES-13 _ 17HC _ 091417 _BLM_ 10 _WB	12:45		53.2		
ES-13 _ 17HC _ 091417 _BLM_ 11 _WB	12:45		61.1		
ES-13 _ 17HC _ 091417 _BLM_ 12 _WB	12:45		58.0		
ES-13 _ 17HC _ 091417 _BLM_ 13 _WB	12:45		37.1		
ES-13 _ 17HC _ 091417 _BLM_ 14 _WB	12:45		49.3		
ES-13 _ 17HC _ 091417 _BLM_ 15 _WB	12:45		44.5		
ES-13 _ 17HC _ 091417 _BLM_ 16 _WB	12:45		39.0		
ES-13 _ 17HC _ 091417 _BLM_ 17 _WB	12:45		73.5		
ES-13 _ 17HC _ 091417 _BLM_ 18 _WB	12:45		41.5		
ES-13 _ 17HC _ 091417 _BLM_ 19 _WB	12:45		57.5		
ES-13 _ 17HC _ 091417 _BLM_ 20 _WB	12:45		48.9		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Wet Ice

QC Collected: MS/MSD MS/MSD Source: 08

Notes:

Mussel sampling was conducted according to the following SOPs included in the QAPP;
SOP S-14 Shellfish Sampling

Technician name (Print): KP Haywood QA/QC by: _____

Technician Signature: _____ Date: _____

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SAMPLE COLLECTION LOG
MUSSEL WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	091417	**Location ID:**	ES-15
Collectors:	KPH DOL	**Collection Method (Equip):**	Hand Collection - Intertidal Rocks
		Habitat:	Rocky-Gravel,Woodchips

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
ES-15 _ 17HC _ 091417 _BLM_ 01 _WB	11:45		35.1		
ES-15 _ 17HC _ 091417 _BLM_ 02 _WB	11:45		34.6		
ES-15 _ 17HC _ 091417 _BLM_ 03 _WB	11:45		34.5		
ES-15 _ 17HC _ 091417 _BLM_ 04 _WB	11:45		38.5		
ES-15 _ 17HC _ 091417 _BLM_ 05 _WB	11:45		47.0		MSMSD
ES-15 _ 17HC _ 091417 _BLM_ 06 _WB	11:45		42.7		
ES-15 _ 17HC _ 091417 _BLM_ 07 _WB	11:45		36.5		
ES-15 _ 17HC _ 091417 _BLM_ 08 _WB	11:45		35.0		
ES-15 _ 17HC _ 091417 _BLM_ 09 _WB	11:45		23.3		
ES-15 _ 17HC _ 091417 _BLM_ 10 _WB	11:45		16.8		
ES-15 _ 17HC _ 091417 _BLM_ 11 _WB	11:45		25.8		
ES-15 _ 17HC _ 091417 _BLM_ 12 _WB	11:45		18.9		
ES-15 _ 17HC _ 091417 _BLM_ 13 _WB	11:45		20.6		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Wet Ice

QC Collected: MS/MSD MS/MSD Source: 05

Notes:

Mussel sampling was conducted according to the following SOPs included in the QAPP;
SOP S-14 Shellfish Sampling

Technician name (Print): KP Haywood QA/QC by: _____

Technician Signature: _____ Date: _____

amec foster wheeler

SAMPLE COLLECTION LOG
MUSSEL WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	091917	**Location ID:**	ES-FP
Collectors:	JB, PH, DL	**Collection Method (Equip):**	Hand Collection - Intertidal Rocks
		Habitat:	Rocky-Gravel

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
ES-FP _ 17HC001 _ 091917 _BLM_ 01 _WB	16:00	77.0	59.5		MS/MSD
ES-FP _ 17HC001 _ 091917 _BLM_ 02 _WB	16:00	84.0	85.2		
ES-FP _ 17HC001 _ 091917 _BLM_ 03 _WB	16:00	79.0	80.6		
ES-FP _ 17HC001 _ 091917 _BLM_ 04 _WB	16:00	73.0	55.4		
ES-FP _ 17HC001 _ 091917 _BLM_ 05 _WB	16:00	79.0	73.4		
ES-FP _ 17HC001 _ 091917 _BLM_ 06 _WB	16:00	78.0	71.8		
ES-FP _ 17HC001 _ 091917 _BLM_ 07 _WB	16:00	73.0	60.3		
ES-FP _ 17HC001 _ 091917 _BLM_ 08 _WB	16:00	72.0	54.9		
ES-FP _ 17HC001 _ 091917 _BLM_ 09 _WB	16:00	71.0	51.8		
ES-FP _ 17HC001 _ 091917 _BLM_ 10 _WB	16:00	80.0	79.0		
ES-FP _ 17HC001 _ 091917 _BLM_ 11 _WB	16:00	79.0	64.8		
ES-FP _ 17HC001 _ 091917 _BLM_ 12 _WB	16:00	79.0	74.3		
ES-FP _ 17HC001 _ 091917 _BLM_ 13 _WB	16:00	72.0	56.0		
ES-FP _ 17HC001 _ 091917 _BLM_ 14 _WB	16:00	70.0	46.7		
ES-FP _ 17HC001 _ 091917 _BLM_ 15 _WB	16:00	73.0	53.8		
ES-FP _ 17HC001 _ 091917 _BLM_ 16 _WB	16:00	70.0	48.1		
ES-FP _ 17HC001 _ 091917 _BLM_ 17 _WB	16:00	68.0	47.5		
ES-FP _ 17HC001 _ 091917 _BLM_ 18 _WB	16:00	68.0	50.1		
ES-FP _ 17HC001 _ 091917 _BLM_ 19 _WB	16:00	71.0	62.9		
ES-FP _ 17HC001 _ 091917 _BLM_ 20 _WB	16:00	77.0	80.1		

Requested Analyses:

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Wet Ice

QC Collected: MS/MSD MS/MSD Source: 01

Notes:

Mussel sampling was conducted according to the following SOPs included in the QAPP;
SOP S-14 Shellfish Sampling

Technician name (Print): Jonathan Bourdeau QA/QC by:

Technician Signature:  Date:

amec foster wheeler

SAMPLE COLLECTION LOG
MUSSEL WHOLE BODY

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	091317	**Location ID:**	FRB-01
Collectors:	DL, PH	**Collection Method (Equip):**	Hand Collection - Intertidal Rocks
		Habitat:	Rocky-Gravel

Sample ID	Time	Length (mm)	Weight (grams)	Photo Y/N	Notes
FRB-01 _ 17HC001 _ 091317 _BLM_ 01 _WB	14:30	78.0	53.8	No	MS/MSD
FRB-01 _ 17HC001 _ 091317 _BLM_ 02 _WB	14:30	69.0	45.0	No	
FRB-01 _ 17HC001 _ 091317 _BLM_ 03 _WB	14:30	74.0	38.1	No	
FRB-01 _ 17HC001 _ 091317 _BLM_ 04 _WB	14:30	66.0	43.2	No	
FRB-01 _ 17HC001 _ 091317 _BLM_ 05 _WB	14:30	70.0	39.7	No	
FRB-01 _ 17HC001 _ 091317 _BLM_ 06 _WB	14:30	72.0	46.7	No	
FRB-01 _ 17HC001 _ 091317 _BLM_ 07 _WB	14:30	65.0	35.6	No	
FRB-01 _ 17HC001 _ 091317 _BLM_ 08 _WB	14:30	60.0	35.0	No	
FRB-01 _ 17HC001 _ 091317 _BLM_ 09 _WB	14:30	59.0	39.6	No	2 mussels, combined weight, larger length
FRB-01 _ 17HC001 _ 091317 _BLM_ 10 _WB	14:30	54.0	35.9	No	2 mussels, combined weight, larger length
FRB-01 _ 17HC001 _ 091317 _BLM_ 11 _WB	14:30	56.0	33.2	No	2 mussels, combined weight, larger length
FRB-01 _ 17HC001 _ 091317 _BLM_ 12 _WB	14:30	51.0	28.9	No	2 mussels, combined weight, larger length
FRB-01 _ 17HC001 _ 091317 _BLM_ 13 _WB	14:30	55.0	25.7	No	2 mussels, combined weight, larger length
FRB-01 _ 17HC001 _ 091317 _BLM_ 14 _WB	14:30	53.0	25.5	No	2 mussels, combined weight, larger length
FRB-01 _ 17HC001 _ 091317 _BLM_ 15 _WB	14:30	56.0	31.3	No	2 mussels, combined weight, larger length
FRB-01 _ 17HC001 _ 091317 _BLM_ 16 _WB	14:30	38.1	53.0	No	2 mussels, combined weight, larger length
FRB-01 _ 17HC001 _ 091317 _BLM_ 17 _WB	14:30	25.1	50.0	No	2 mussels, combined weight, larger length
FRB-01 _ 17HC001 _ 091317 _BLM_ 18 _WB	14:30	23.9	49.0	No	2 mussels, combined weight, larger length
FRB-01 _ 17HC001 _ 091317 _BLM_ 19 _WB	14:30	28.5	53.0	No	2 mussels, combined weight, larger length
FRB-01 _ 17HC001 _ 091317 _BLM_ 20 _WB	14:30	29.4	55.0	No	2 mussels, combined weight, larger length

Requested Analyses:

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total Lipids	1631e/NOAA 1993a	1 gal Ziploc	1	4°C

Additional Questions:

Preservative at Collection: Wet Ice

QC Collected: MS/MSD MS/MSD Source: 01

Notes:

Mussel sampling was conducted according to the following SOPs included in the QAPP;
SOP S-14 Shellfish Sampling

Technician name (Print): Lauren Tierney QA/QC by: _____

Technician Signature:  Date: _____

Polychaete Field Data Records

amec foster wheeler

SAMPLE COLLECTION LOG
COMPOSITE: WHOLE BODY POLYCHAETES

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	073117	**Location ID:**	BFK
Collectors:	DL, BW	**Collection Method (Equip):**	Clam Rake, Hand, Shovel

Sample ID	Time	Number of Individuals per Composite	Weight of Composite (grams)	Photo (Y/N)	Notes
BFK _ 17HC001 _ 073117 _POL_ 01 _WB	19:30	0 - 5	5.2	Yes	
BFK _ 17HC001 _ 073117 _POL_ 02 _WB	19:30	5 - 10	3.6	Yes	
BFK _ 17HC001 _ 073117 _POL_ 03 _WB	19:30	0 - 5	4.0	Yes	
BFK _ 17HC001 _ 073117 _POL_ 04 _WB	19:30	0 - 5	3.4	Yes	
BFK _ 17HC001 _ 073117 _POL_ 05 _WB	19:30	0 - 5	2.9	Yes	

Requested Analyses

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total MeHg	1631e/1630	2 oz polyethylene jar	1	4°C
Total Lipids	NOAA 1993a			

Additional Questions:

QC Collected: None MS/MSD Source: NA

Notes:

Polychaete sampling was conducted according to the following SOP included in the QAPP; SOP S-15 Polychaete Sampling

Technician name (Print): Lauren Tierney QA/QC by: _____

Technician Signature: Lauren Tierney Date: _____

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SAMPLE COLLECTION LOG
COMPOSITE: WHOLE BODY POLYCHAETES

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	073117	**Location ID:**	ES-02E
Collectors:	DL, BW	**Collection Method (Equip):**	Clam Rake, Hand, Shovel

Sample ID	Time	Number of Individuals per Composite	Weight of Composite (grams)	Photo (Y/N)	Notes
ES-02E _ 17HC001 _ 073117 _POL_ 01 _WB	20:05	0 - 5	7.0	Yes	
ES-02E _ 17HC001 _ 073117 _POL_ 02 _WB	20:05	0 - 5	4.3	Yes	
ES-02E _ 17HC001 _ 073117 _POL_ 03 _WB	20:05	0 - 5	5.0	Yes	
ES-02E _ 17HC001 _ 073117 _POL_ 04 _WB	20:05	0 - 5	5.2	Yes	
ES-02E _ 17HC001 _ 073117 _POL_ 05 _WB	20:05	0 - 5	5.3	Yes	

Requested Analyses

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total MeHg	1631e/1630	2 oz polyethylene jar	1	4°C
Total Lipids	NOAA 1993a			

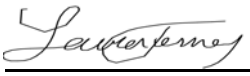
Additional Questions:

QC Collected: MS/MSD MS/MSD Source: 01

Notes:

Polychaete sampling was conducted according to the following SOP included in the QAPP; SOP S-15 Polychaete Sampling

Technician name (Print): Lauren Tierney QA/QC by: _____

Technician Signature:  Date: _____

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SAMPLE COLLECTION LOG
COMPOSITE: WHOLE BODY POLYCHAETES

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	072717	**Location ID:**	ES-03
Collectors:	JAB, DOL	**Collection Method (Equip):**	Clam Rake, Shovel

Sample ID	Time	Number of Individuals per Composite	Weight of Composite (grams)	Photo (Y/N)	Notes
ES-03 _ 17HD _ 072717 _POL_ 01 _WB	09:55	0 - 5	6.1	Yes	
ES-03 _ 17HD _ 072717 _POL_ 02 _WB	09:55	0 - 5	7.1	Yes	
ES-03 _ 17HD _ 072717 _POL_ 03 _WB	09:55	0 - 5	6.6	Yes	
ES-03 _ 17HD _ 072717 _POL_ 04 _WB	09:55	5 - 10	6.0	Yes	
ES-03 _ 17HD _ 072717 _POL_ 05 _WB	09:55	0 - 5	5.0	Yes	Different species

Requested Analyses

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total MeHg	1631e/1630	2 oz polyethylene jar	1	4°C
Total Lipids	NOAA 1993a			

Additional Questions:

QC Collected: None MS/MSD Source: NA

Notes:

Polychaete sampling was conducted according to the following SOP included in the QAPP; SOP S-15 Polychaete Sampling

Technician name (Print): Jonathan Bourdeau QA/QC by: _____

Technician Signature:  Date: _____

amec foster wheeler

SAMPLE COLLECTION LOG
COMPOSITE: WHOLE BODY POLYCHAETES

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	072517	**Location ID:**	ES-13
Collectors:	JAB, DOL	**Collection Method (Equip):**	Clam Rake, Shovel

Sample ID	Time	Number of Individuals per Composite	Weight of Composite (grams)	Photo (Y/N)	Notes
ES-13 _ 17HD _ 072517 _POL_ 01 _WB	16:30	0 - 5	5.1	Yes	
ES-13 _ 17HD _ 072517 _POL_ 02 _WB	16:30	0 - 5	5.5	Yes	
ES-13 _ 17HD _ 072517 _POL_ 03 _WB	16:30	10 - 15	10.0	Yes	Also MS/MSD
ES-13 _ 17HD _ 072517 _POL_ 04 _WB	16:30	10 - 15	5.0	Yes	Red worms
ES-13 _ 17HD _ 072517 _POL_ 05 _WB	16:30	15 - 20	5.0	Yes	Mixed

Requested Analyses

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total MeHg	1631e/1630	2 oz polyethylene jar	1	4°C
Total Lipids	NOAA 1993a			

Additional Questions:

QC Collected: MS/MSD MS/MSD Source: 03

Notes:

Polychaete sampling was conducted according to the following SOP included in the QAPP; SOP S-15 Polychaete Sampling

Technician name (Print): Jonathan Bourdeau QA/QC by: _____

Technician Signature:  Date: _____

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SAMPLE COLLECTION LOG
COMPOSITE: WHOLE BODY POLYCHAETES

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	072817	**Location ID:**	ES-FP
Collectors:	JAB, DOL	**Collection Method (Equip):**	Clam Rake, Shovel

Sample ID	Time	Number of Individuals per Composite	Weight of Composite (grams)	Photo (Y/N)	Notes
ES-FP _ 17HD _ 072817 _POL_ 01 _WB	12:45	10 - 15	5.5	Yes	
ES-FP _ 17HD _ 072817 _POL_ 02 _WB	12:45	10 - 15	5.3	Yes	
ES-FP _ 17HD _ 072817 _POL_ 03 _WB	12:45	15 - 20	5.8	Yes	
ES-FP _ 17HD _ 072817 _POL_ 04 _WB	12:45	15 - 20	5.0	Yes	
ES-FP _ 17HD _ 072817 _POL_ 05 _WB	12:45	15 - 20	5.4	Yes	

Requested Analyses

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total MeHg	1631e/1630	2 oz polyethylene jar	1	4°C
Total Lipids	NOAA 1993a			

Additional Questions:

QC Collected: None MS/MSD Source: NA

Notes:

Polychaete sampling was conducted according to the following SOP included in the QAPP; SOP S-15 Polychaete Sampling

Technician name (Print): Jonathan Bourdeau QA/QC by: _____

Technician Signature:  Date: _____

amec foster wheeler

SAMPLE COLLECTION LOG
COMPOSITE: WHOLE BODY POLYCHAETES

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	072817	**Location ID:**	ES-FP
Collectors:	JAB, DOL	**Collection Method (Equip):**	Clam Rake, Shovel

Sample ID	Time	Number of Individuals per Composite	Weight of Composite (grams)	Photo (Y/N)	Notes
ES-FP _ 17HD _ 072817 _POL_ 01 _WB	12:40	10 - 15	5.5	Yes	
ES-FP _ 17HD _ 072817 _POL_ 02 _WB	12:40	10 - 15	5.3	Yes	
ES-FP _ 17HD _ 072817 _POL_ 03 _WB	12:40	15 - 20	5.8	Yes	
ES-FP _ 17HD _ 072817 _POL_ 04 _WB	12:40	15 - 20	5.0	Yes	
ES-FP _ 17HD _ 072817 _POL_ 05 _WB	12:40	15 - 20	5.4	Yes	

Requested Analyses

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total MeHg	1631e/1630	2 oz polyethylene jar	1	4°C
Total Lipids	NOAA 1993a			

Additional Questions:

QC Collected: None MS/MSD Source: NA

Notes:

Polychaete sampling was conducted according to the following SOP included in the QAPP; SOP S-15 Polychaete Sampling

Technician name (Print): Jonathan Bourdeau QA/QC by: _____

Technician Signature:  Date: _____

amec foster wheeler

SAMPLE COLLECTION LOG
COMPOSITE: WHOLE BODY POLYCHAETES

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	072717	**Location ID:**	ESFP-W
Collectors:	JAB, DOL	**Collection Method (Equip):**	Clam Rake, Shovel

Sample ID	Time	Number of Individuals per Composite	Weight of Composite (grams)	Photo (Y/N)	Notes
ESFP-W _ 17HD _ 072717 _POL_ 01 _WB	11:35	5 - 10	5.3	Yes	
ESFP-W _ 17HD _ 072717 _POL_ 02 _WB	11:35	0 - 5	5.3	Yes	
ESFP-W _ 17HD _ 072717 _POL_ 03 _WB	11:35	0 - 5	5.3	Yes	
ESFP-W _ 17HD _ 072717 _POL_ 04 _WB	11:35	10 - 15	5.1	Yes	
ESFP-W _ 17HD _ 072717 _POL_ 05 _WB	11:35	> 20	5.0	Yes	

Requested Analyses

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total MeHg	1631e/1630	2 oz polyethylene jar	1	4°C
Total Lipids	NOAA 1993a			

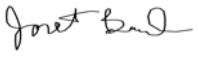
Additional Questions:

QC Collected: None MS/MSD Source: NA

Notes:

Polychaete sampling was conducted according to the following SOP included in the QAPP; SOP S-15 Polychaete Sampling

Technician name (Print): Jonathan Bourdeau QA/QC by: _____

Technician Signature:  Date: _____

amec foster wheeler

SAMPLE COLLECTION LOG
COMPOSITE: WHOLE BODY POLYCHAETES

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	080117	**Location ID:**	MM-MR_INT
Collectors:	DOL/BPW	**Collection Method (Equip):**	Clam Rake, Hand, Shovel

Sample ID	Time	Number of Individuals per Composite	Weight of Composite (grams)	Photo (Y/N)	Notes
MM-MR_INT _ 17HD _ 080117 _POL_ 1 _WB	11:00	10 - 15	3.8	Yes	
MM-MR_INT _ 17HD _ 080117 _POL_ 2 _WB	11:00	10 - 15	4.2	Yes	
MM-MR_INT _ 17HD _ 080117 _POL_ 3 _WB	11:00	15 - 20	5.1	Yes	
MM-MR_INT _ 17HD _ 080117 _POL_ 4 _WB	11:00	10 - 15	5.0	Yes	
MM-MR_INT _ 17HD _ 080117 _POL_ 5 _WB	11:00	> 20	3.0	Yes	

Requested Analyses

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total MeHg	1631e/1630	2 oz polyethylene jar	1	4°C
Total Lipids	NOAA 1993a			

Additional Questions:

QC Collected: None MS/MSD Source: NA

Notes:

Polychaete sampling was conducted according to the following SOP included in the QAPP; SOP S-15 Polychaete Sampling

Technician name (Print): David Lovejoy QA/QC by: _____

Technician Signature: David Lovejoy Date: _____

amec foster wheeler

SAMPLE COLLECTION LOG
COMPOSITE: WHOLE BODY POLYCHAETES

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	072517	**Location ID:**	OB-01
Collectors:	JAB, DOL	**Collection Method (Equip):**	Clam Rake, Shovel

Sample ID	Time	Number of Individuals per Composite	Weight of Composite (grams)	Photo (Y/N)	Notes
OB-01 _ 17HD _ 072517 _POL_ 01 _WB	10:00	15 - 20	5.0	Yes	
OB-01 _ 17HD _ 072517 _POL_ 02 _WB	10:00	15 - 20	5.0	Yes	
OB-01 _ 17HD _ 072517 _POL_ 03 _WB	10:00	15 - 20	5.0	Yes	
OB-01 _ 17HD _ 072517 _POL_ 04 _WB	10:00	15 - 20	5.0	Yes	
OB-01 _ 17HD _ 072517 _POL_ 05 _WB	10:00	15 - 20	5.1	Yes	Mix of species

Requested Analyses

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total MeHg	1631e/1630	2 oz polyethylene jar	1	4°C
Total Lipids	NOAA 1993a			

Additional Questions:

QC Collected: None MS/MSD Source: NA

Notes:

Polychaete sampling was conducted according to the following SOP included in the QAPP; SOP S-15 Polychaete Sampling

Technician name (Print): Jonathan Bourdeau QA/QC by: _____

Technician Signature: _____ Date: _____

amec foster wheeler

SAMPLE COLLECTION LOG
COMPOSITE: WHOLE BODY POLYCHAETES

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	080217	**Location ID:**	PI-01
Collectors:	KB, LT, BW	**Collection Method (Equip):**	Hand

Sample ID	Time	Number of Individuals per Composite	Weight of Composite (grams)	Photo (Y/N)	Notes
PI-01 _ 17HD001 _ 080217 _POL_ 01 _WB	19:10	0 - 5	4.0	Yes	
PI-01 _ 17HD001 _ 080217 _POL_ 02 _WB	19:10	0 - 5	8.2	Yes	
PI-01 _ 17HD001 _ 080217 _POL_ 03 _WB	19:11	5 - 10	5.1	Yes	
PI-01 _ 17HD001 _ 080217 _POL_ 04 _WB	19:11	0 - 5	5.1	Yes	
PI-01 _ 17HD001 _ 080217 _POL_ 05 _WB	19:11	0 - 5	9.7	Yes	

Requested Analyses

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total MeHg	1631e/1630	2 oz polyethylene jar	1	4°C
Total Lipids	NOAA 1993a			

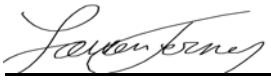
Additional Questions:

QC Collected: MS/MSD MS/MSD Source: 05

Notes:

Polychaete sampling was conducted according to the following SOP included in the QAPP; SOP S-15 Polychaete Sampling

Technician name (Print): Lauren Tierney QA/QC by: _____

Technician Signature:  Date: _____

amec foster wheeler

SAMPLE COLLECTION LOG
COMPOSITE: WHOLE BODY POLYCHAETES

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	080217	**Location ID:**	SVE-02INT
Collectors:	BW, DL, LT	**Collection Method (Equip):**	Clam Rake, Hand

Sample ID	Time	Number of Individuals per Composite	Weight of Composite (grams)	Photo (Y/N)	Notes
SVE-02INT _ 17HD001 _ 080217 _POL_ 01 _WB	19:20	10 - 15	5.4	Yes	
SVE-02INT _ 17HD001 _ 080217 _POL_ 02 _WB	19:20	5 - 10	5.3	Yes	
SVE-02INT _ 17HD001 _ 080217 _POL_ 03 _WB	19:20	10 - 15	6.4	Yes	
SVE-02INT _ 17HD001 _ 080217 _POL_ 04 _WB	19:20	10 - 15	6.2	Yes	
SVE-02INT _ 17HD001 _ 080217 _POL_ 05 _WB	19:20	15 - 20	10.4	Yes	

Requested Analyses

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total MeHg	1631e/1630	2 oz polyethylene jar	1	4°C
Total Lipids	NOAA 1993a			

Additional Questions:

QC Collected: MS/MSD MS/MSD Source: 05

Notes:

Polychaete sampling was conducted according to the following SOP included in the QAPP; SOP S-15 Polychaete Sampling

Technician name (Print): Lauren Tierney QA/QC by: _____

Technician Signature:  Date: _____

Sediment Field Data Records

Penobscot River Mercury Study - Phase III Engineering Evaluation

INTERTIDAL SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: BFK-01
WO: 4A-050 Biota Co-Located

Core Collection

Core Collection Team: KB
Core Collection Date: 08/02/2017
Core Collection Time: 13:02
Instant Freeze (Y/N): Yes
Collection Method: Push Corer
Liner Type: 3" D x 24" L Plastic
Est. Volume: 47 oz/ft

	Core Recovery		
Sleeve Length in Decimal Feet:	2.0	2.0	2.0
Depth Cored in Decimal Feet:	1.5	1.5	1.5
Recovered Core Length in Decimal Feet:	0.68	0.77	0.7
% Recovery (Recovered Core/Depth Cored):	45%	51%	47%

Core Log

Core Logger: BPW
Woody Debris (Y/N): yes
Salinity of Water at Mudline: 27.0 PSU (o/00)

Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0.0-0.2	10yr 4/1 dark gray, sandy silt, 60%silt, 40%fine grained sand, woody sawdust, no roots, saturated, no odor, low plasticity, small shrimp like organism,.
0.2-0.6	10yr 3/1 very dark gray,sandy silt, 70%sand, 30%silt, no plasticity, no odor, saturated, no organisms, wood sawdust.
Notes	Water depth 2', falling tide, surface salinity 15 PSU

Sample Collection

Sample Collection Team: KCB,BPW
Sample Collection Date: 8/15/17 and 8/17/17

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
NA	No Lutocline Sample	NA	NA	NA	NA	Lab Homogenize and Subsample
0.0 - 0.1	BFK-01 _ 081517 _SED_00-01	1635	MeHg, Hg, TOC, OC	None	2 x 8 oz Plastic	
0.1 - 0.3	BFK-01 _ 081517 _SED_01-03	1638	MeHg, Hg, TOC, OC	None	2 x 16 oz Plastic	
0.3 - 0.5	BFK-01 _ 081717 _SED_03-05	1846	Hg, TOC, OC	None	3 x 4 oz Plastic	Field Lab Homogenize and Subsample
0.5 - 1.0	BFK-01 _ 081717 _SED_05-10	1848	Hg, TOC, OC	MS/MSD	3 x 4 oz Plastic	

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
Interval 0.0 = Determined by light disappearance test
Samples were processed/ sectioned in the Winterport field office.
Geographic coordinates provided on Core/Grab log.

Technician Name: Lauren Tierney
QA/QC by: Julie Pallozzi

Technician Signature:
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

INTERTIDAL SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: BO-04 INT
WO: 4A-050 Biota Co-Located

Core Collection

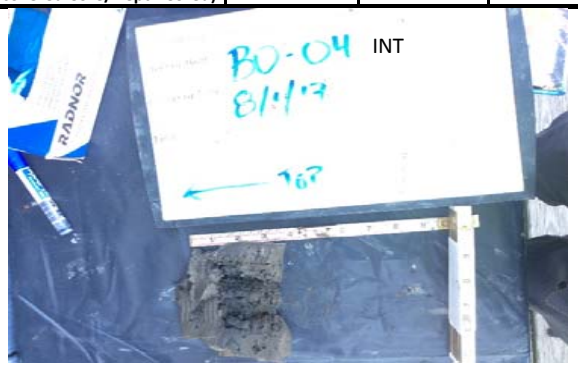
Core Collection Team: KB
Core Collection Date: 08/01/2017
Core Collection Time: 14:00
Instant Freeze (Y/N): Yes
Collection Method: Push Corer
Liner Type: 3" D x 24" L Plastic
Est. Volume: 47 oz/ft

	Core Recovery		
Sleeve Length in Decimal Feet:	2.0	2.0	2.0
Depth Cored in Decimal Feet:	1.5	1.5	1.5
Recovered Core Length in Decimal Feet:	0.38	0.37	0.46
% Recovery (Recovered Core/Depth Cored):	25%	25%	31%

Core Log

Core Logger: BW
Woody Debris (Y/N): No
Salinity of Water at Mudline: 0 PSU (o/00)

Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0.0-0.1	10yr 4/2 dark grayish brown, silt with sand, 95% silt, 5% fine grained sand, saturated, no plasticity due to water content, no odor, no roots.
0.1-0.35	10yr 3/2 very dark grayish brown with black modeling, 90% silt, 10% fine grained sand, saturated, no plasticity, biological odor, no roots



Sample Collection

Sample Collection Team: KCB, BPW
Sample Collection Date: 8/15/17 and 8/17/17

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
NA	No Lutocline Sample	NA	NA	NA	NA	Lab Homogenize and Subsample
0.0 - 0.1	BO-04 INT _ 081517 _SED_00-01	1834	MeHg, Hg, TOC, OC	None	2 x 8 oz Plastic	
0.1 - 0.3	BO-04 INT _ 081517 _SED_01-03	1836	MeHg, Hg, TOC, OC	None	2 x 16 oz Plastic	
0.3 - 0.5	BO-04 INT _ 081717 _SED_03-05	1729	Hg	None	1 x 4 oz Plastic	Field Lab Homogenize and Subsample
0.5 - 1.0	Not enough volume for sample	N/A	N/A	N/A	N/A	

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
Interval 0.0 = Determined by light disappearance test
Samples were processed/ sectioned in the Winterport field office with windows closed.
Geographic coordinates provided on Core/Grab log.

Technician Name: Kendra Bavor
QA/QC by: Lauren Tierney

Technician Signature:
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

INTERTIDAL SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: ES-02E
WO: 4A-050 Biota Co-Located

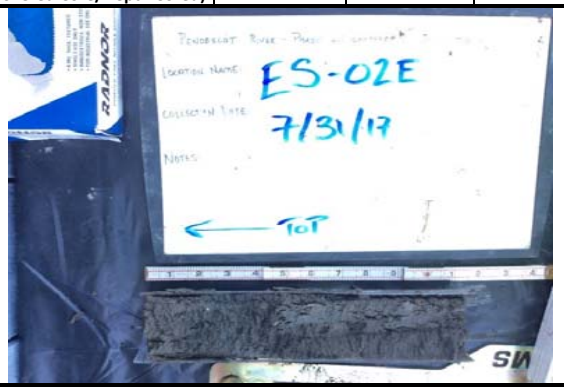
Core Collection

Core Collection Team: KB, LT
Core Collection Date: 07/31/2017
Core Collection Time: 14:38
Instant Freeze (Y/N): Yes
Collection Method: Push Corer
Liner Type: 3" D x 24" L Plastic
Est. Volume: 47 oz/ft

	Core Recovery		
Sleeve Length in Decimal Feet:	2.0	2.0	2.0
Depth Cored in Decimal Feet:	1.5	1.5	1.5
Recovered Core Length in Decimal Feet:	1.22	1.11	1.15
% Recovery (Recovered Core/Depth Cored):	81%	74%	77%

Core Log

Core Logger: BPW
Woody Debris (Y/N): No
Salinity of Water at Mudline: 20 PSU (o/00)



Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0.0 - 0.1	10yr 4/1 dark gray, silt with sand, 85% silt, 15% fine grained sand, saturated, biological odor, low plasticity, no roots.
0.1-0.5	10yr 3/1 very dark gray with black modeling, sandy silt, 80% silt 20% fine grained sand, saturated, biological odor, clam @ .4, low plasticity, no roots.
0.5-1.1	10yr 3.1 very dark gray, silt with sand, 90% silt, 10% fine grained sand, saturated, biological odor, low plasticity, no roots
Notes	Surface salinity - 20 PSU, water depth 3', rising tide

Sample Collection

Sample Collection Team: LT BW
Sample Collection Date: 8/1/2017 and 8/3/2017

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
NA	No Lutocline Sample	N/A	N/A	N/A	N/A	Lab Homogenize and Subsample
0.0 - 0.1	ES-02E _ 080117 _SED_00-01	1331	MeHg, Hg, TOC, OC	None	1 x 16 oz Plastic	
0.1 - 0.3	ES-02E _ 080117 _SED_01-03	1333	MeHg, Hg, TOC, OC	None	2 x 16 oz Plastic	
0.3 - 0.5	ES-02E _ 080317 _SED_03-05	1352	Hg, TOC, OC	Triple Replicate	1 x 8 oz Plastic 2 x 8 oz Amber Glass	Field Lab Homogenize and Subsample
0.5 - 1.0	ES-02E _ 080317 _SED_05-10	1354	Hg, TOC, OC	None	1 x 8 oz Plastic 2 x 8 oz Amber Glass	

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
Interval 0.0 = Determined by light disappearance test
Samples were processed/ sectioned in the Winterport field office
Geographic coordinates provided on Core/Grab log.

Technician Name: Lauren Tierney
QA/QC by: Julie Pallozzi

Technician Signature:
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

INTERTIDAL SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: ES-03
WO: 4A-050 Biota Co-Located

Core Collection

Core Collection Team: DL KB
Core Collection Date: 08/03/2017
Core Collection Time: 13:00
Instant Freeze (Y/N): Yes
Collection Method: Push Corer
Liner Type: 3" D x 24" L Plastic
Est. Volume: 47 oz/ft

	Core Recovery		
Sleeve Length in Decimal Feet:	2.0	2.0	2.0
Depth Cored in Decimal Feet:	1.5	1.5	1.5
Recovered Core Length in Decimal Feet:	0.54	0.53	0.49
% Recovery (Recovered Core/Depth Cored):	36%	35%	33%

Core Log

Core Logger: KMC
Woody Debris (Y/N): N
Salinity of Water at Mudline: 25.0 PSU (o/00)

Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0-0.1	2.5Y5/3, Silt with some FN sand, 90% silt 10% fn sand, WET, shrimp, biologic odor, low plasticity, some roots
0.1-0.2	2.5Y3/1, Silt with some coarse sand, 90% silt10%, WET, no organisms, biologic odor, low plasticity, some roots
0.2-0.3	10YR 3/1, Sandy silt with gravel., 60% sand 30% silt 10% gravel, WET, fresh water clam, biologic odor, poorly graded, no roots
03-0.4	5YR5/2, Clay with sand and gravel, 80% clay 10% sand 10% gravel, WET, no organisms, no plasticity, no roots.

Sample Collection

Sample Collection Team: KCB, BPW
Sample Collection Date: 8/15/17 and

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
NA	No Lutocline Sample	N/A	N/A	N/A	N/A	Lab Homogenize and Subsample
0.0 - 0.1	ES-03 _ 081517 _SED_00-01	1707	MeHg, Hg, TOC, OC	None	2 x 8 oz Plastic	
0.1 - 0.3	ES-03 _ 081517 _SED_01-03	1710	MeHg, Hg, TOC, OC	None	2 x 16 oz Plastic	
0.3 - 0.5	ES-03 _ 081717 _SED_03-05	1850	Hg, TOC, OC	None	N/A	Field Lab Homogenize and Subsample
0.5 - 1.0	Not enough volume for sample	N/A	N/A	N/A	N/A	

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
Interval 0.0 = Determined by light disappearance test
Samples were processed/ sectioned in the Winterport field office
Geographic coordinates provided on Core/Grab log.

Technician Name: Lauren Tierney
QA/QC by: Julie Pallozzi

Technician Signature:
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

INTERTIDAL SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: ES-15
WO: 4A-050 Biota Co-Located

Core Collection

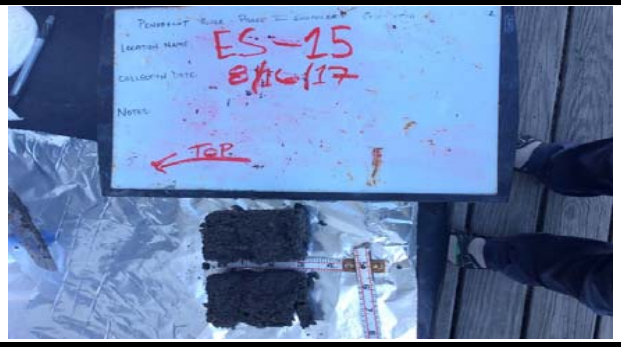
Core Collection Team: BW KB
Core Collection Date: 08/16/2017
Core Collection Time: 12:34
Instant Freeze (Y/N): Yes
Collection Method: Push Core
Liner Type: 3" D x 24" L Plastic
Est. Volume: 47 oz/ft

	Core Recovery		
Sleeve Length in Decimal Feet:	2.0	2.0	2.0
Depth Cored in Decimal Feet:	1.5	1.5	1.5
Recovered Core Length in Decimal Feet:	0.35	0.55	0.63
% Recovery (Recovered Core/Depth Cored):	23%	37%	42%

Core Log

Core Logger: KMC
Woody Debris (Y/N): Yes
Salinity of Water at Mudline: 20.0 PSU (o/00)

Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0-0.3	10YR 3/2, sandy silt with gravel, 70% sand, 20% silt, 10% fine gravel, wet, no organisms, no odor, poorly graded, no roots, 20% WCH
0.3-0.35	10YR 3/1, angular sand with gravel, 60% medium sand, 20% fine sand, 10% coarse sand, 10% fine gravel, wet, no organisms, no odor, well graded, no roots



Sample Collection

Sample Collection Team: KCB, BPW
Sample Collection Date: 8/17/17 and 8/18/17

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
NA	No Lutocline Sample	NA	NA	NA	NA	Lab Homogenize and Subsample
0.0 - 0.1	ES-15 _ 081717 _SED_00-01	2100	MeHg, Hg, TOC, OC	None	2 x 8 oz Plastic	
0.1 - 0.3	ES-15 _ 081717 _SED_01-03	2103	MeHg, Hg, TOC, OC	None	2 x 16 oz Plastic	
0.3 - 0.5	ES-15 _ 081817 _SED_03-05	1018	Hg, TOC, OC	None	3 x 4 oz Plastic	Field Lab Homogenize and Subsample
0.5 - 1.0	Not enough volume for sample	N/A	N/A	N/A	N/A	

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:

Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
Interval 0.0 = Determined by light disappearance test
Samples were processed/ sectioned in the Winterport field office
Geographic coordinates provided on Core/Grab log.

Technician Name: Brad Wolfe
QA/QC by: Lauren Tierney

Technician Signature:
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

INTERTIDAL SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: ESFP
WO: 4A-050 Biota Co-Located

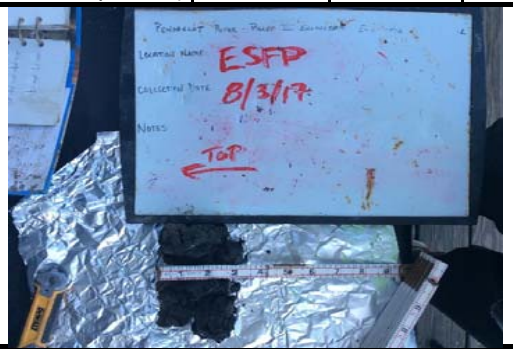
Core Collection

Core Collection Team: DL KB
Core Collection Date: 08/03/2017
Core Collection Time: 14:00
Instant Freeze (Y/N): Yes
Collection Method: Push Corer
Liner Type: 3" D x 24" L Plastic
Est. Volume: 47 oz/ft

	Core Recovery		
Sleeve Length in Decimal Feet:	2.0	2.0	2.0
Depth Cored in Decimal Feet:	1.5	1.5	1.5
Recovered Core Length in Decimal Feet:	0.35	0.44	0.48
% Recovery (Recovered Core/Depth Cored):	23%	29%	32%

Core Log

Core Logger: BW
Woody Debris (Y/N): N
Salinity of Water at Mudline: 20.0 PSU (o/00)



Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0.0-0.05	10YR 4/2 Dark grayish brown, sand with silt, 95% poorly graded fine-med grained sand, 5% silt, no plasticity, wet, no organisms, no roots.
0.05-0.3	10YR 2/1 black, sand with silt, 95% poorly graded fine-med sand, wet, no plasticity, no odor, no roots.shells.
Notes	@ .3 fine cobbled

Sample Collection

Sample Collection Team:
Sample Collection Date: 8/15/2017 and 8/12/2017

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
NA	No Lutocline Sample	NA	NA	NA	NA	Lab Homogenize and Subsample
0.0 - 0.1	ESFP _ 081517 _SED_00-01	1723	MeHg, Hg, TOC, OC	None	2 x 8 oz Plastic	
0.1 - 0.3	ESFP _ 081517 _SED_01-03	1725	MeHg, Hg, TOC, OC	None	2 x 16 oz Plastic	
0.3 - 0.5	ESFP _ 081717 _SED_03-05	1729	Hg	None	1 x 4 oz Plastic	Field Lab Homogenize and Subsample
0.5 - 1.0	Not enough volume for sample	N/A	N/A	N/A	N/A	

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
Interval 0.0 = Determined by light disappearance test
Samples were processed/ sectioned in the Winterport field office.
Geographic coordinates provided on Core/Grab log.

Technician Name: Lauren Tierney
QA/QC by: Julie Pallozzi

Technician Signature:
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

INTERTIDAL SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: ESFP-W
WO: 4A-050 Biota Co-Located

Core Collection

Core Collection Team: DL KB
Core Collection Date: 08/03/2017
Core Collection Time: 13:30
Instant Freeze (Y/N): Yes
Collection Method: Push Corer
Liner Type: 3" D x 24" L Plastic
Est. Volume: 47 oz/ft

	Core Recovery		
Sleeve Length in Decimal Feet:	2.0	2.0	2.0
Depth Cored in Decimal Feet:	1.5	1.5	1.5
Recovered Core Length in Decimal Feet:	0.55	0.78	0.8
% Recovery (Recovered Core/Depth Cored):	37%	52%	53%

Core Log

Core Logger: BPW
Woody Debris (Y/N): No
Salinity of Water at Mudline: 25.0 PSU (o/00)

Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0.0-0.1	10YR 4/2 dark grayish brown, Sand with silt. 90% poorly graded med-coarse sand, 10% silt, no plasticity, wet, no odor, no organisms.
0.1-.25	10YR 3/2 very dark grayish brown.Sand with silt. 905% poorly graded caorse sand. No plasticity. No odor, no organisms, wet.
0.25-0.5	10YR 4/1 dark gray, Sand with cobbles and silt, 85% poorlyu sorted fine-coars sand, 10% small cobbles, 5% silt

Sample Collection

Sample Collection Team: KCB,BPW
Sample Collection Date: 8/15/17 and 8/17/17

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
NA	No Lutocline Sample	N/A	N/A	N/A	N/A	Lab Homogenize and Subsample
0.0 - 0.1	ESFP-W _ 081517 _SED_00-01	1605	MeHg, Hg, TOC, OC	MS/MSD	2 x 8 oz Plastic	
0.1 - 0.3	ESFP-W _ 081517 _SED_01-03	1607	MeHg, Hg, TOC, OC	None	2 x 16 oz Plastic	
0.3 - 0.5	ESFP-W _ 081717 _SED_03-05	1838	Hg, TOC, OC	None	3 x 4 oz Plastic	Field Lab Homogenize and Subsample
0.5 - 1.0	ESFP-W _ 081717 _SED_05-10	1840	Hg, TOC, OC	None	3 x 4 oz Plastic	

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
Interval 0.0 = Determined by light disappearance test
Samples were processed/ sectioned in the Winterport field office.
Geographic coordinates provided on Core/Grab log.

Technician Name: Lauren Tierney
QA/QC by: Julie Pallozzi

Technician Signature:
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

INTERTIDAL SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: MM-MR-INT
WO: 4A-050 Biota Co-Located

Core Collection

Core Collection Team: DL, LT, BW, KB
Core Collection Date: 08/02/2017
Core Collection Time: 11:53
Instant Freeze (Y/N): Yes
Collection Method: Push Corer
Liner Type: 3" D x 24" L Plastic
Est. Volume: 47 oz/ft

	Core Recovery		
Sleeve Length in Decimal Feet:	2.0	2.0	2.0
Depth Cored in Decimal Feet:	1.5	1.5	1.5
Recovered Core Length in Decimal Feet:	0.9	0.85	0.75
% Recovery (Recovered Core/Depth Cored):	60%	57%	50%

Core Log

Core Logger: BPW
Woody Debris (Y/N): Yes
Salinity of Water at Mudline: 12.0 PSU (o/00)

Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0.0-0.1	10yr 4/2 dark grayish brown, silt with sand, 95% silt, 5%fine grained sand,no roots, saturated, no odor, no p;asticity, no organisms, no obsrved woodship.
0.1-0.35	10yr 2/1 black, sandy silt, 80% silt, 20 % fine grained sand, no roots, leaf matter, saturated, no organisms, organic odor, low plasticity, no organisms, some woody debris.
0.35-0.85	10yr 4/1 dark gray, silt with sand, 90%silt, 10%fine grained sand, no roots, wet, organic odor, low plasticity, no organisms, .1 length wood chips.
Notes	Falling tide, water depth 2.7', surface salinity 10

Sample Collection

Sample Collection Team: KCB,BPW
Sample Collection Date: 8/15/17 and 8/17/17

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
NA	No Lutocline Sample	N/A	N/A	N/A	N/A	
0.0 - 0.1	MM-MR-INT _ 081517 _SED_00-01	1455	MeHg, Hg, TOC, OC	None	2 x 8 oz Plastic	Lab Homogenize and Subsample
0.1 - 0.3	MM-MR-INT _ 081517 _SED_01-03	1456	MeHg, Hg, TOC, OC	None	2 x 16 oz Plastic	
0.3 - 0.5	MM-MR-INT _ 081717 _SED_03-05	1815	Hg, TOC, OC	None	3 x 4 oz Plastic	Field Lab Homogenize and Subsample
0.5 - 1.0	MM-MR-INT _ 81717 _SED_05-10	1820	Hg, TOC, OC	None	3 x 4 oz Plastic	

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
Interval 0.0 = Determined by light disappearance test
Samples were processed/ sectioned in the Winterport field office.
Geographic coordinates provided on Core/Grab log.

Technician Name: Lauren Tierney
QA/QC by: Julie Pallozzi

Technician Signature: Lauren Tierney
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

INTERTIDAL SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: MM-TP
WO: 4A-050 Biota Co-Located

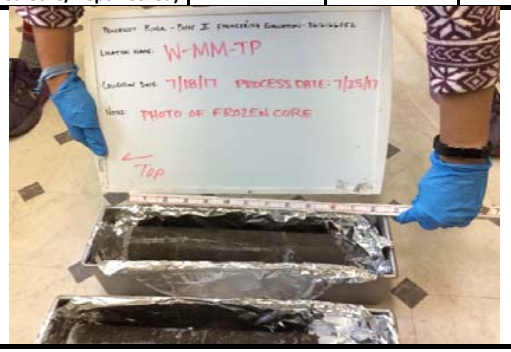
Core Collection

Core Collection Team: KB, FM, LT
Core Collection Date: 07/18/2017
Core Collection Time: 10:28
Instant Freeze (Y/N): Yes
Collection Method: Push Corer
Liner Type: 3" D x 24" L Plastic
Est. Volume: 47 oz/ft

	Core Recovery		
Sleeve Length in Decimal Feet:	2.0	2.0	2.0
Depth Cored in Decimal Feet:	1.5	1.5	1.5
Recovered Core Length in Decimal Feet:	1.3	0.96	1.02
% Recovery (Recovered Core/Depth Cored):	87%	64%	68%

Core Log

Core Logger: FKM
Woody Debris (Y/N): Yes
Salinity of Water at Mudline: 10 PSU (o/00)



Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0-0.2	dark gray (10YR 4/1), SILT with some clay (<15%), predominantly decomposed organic matter (>70%, roots, twigs, and leaves), organic odor, no plasticity, no living organisms observed, wood chips
0.2-1.3	dark gray (10YR 4/1), CLAY, medium, plasticity, soft, fine wood chips dispersed in soil matrix, organic odor, no living organisms observed
Notes	Surface water salinity 10 PSU, 0.0-0.3' woody debris and shell fragments

Sample Collection

Sample Collection Team: JP LT BW FM
Sample Collection Date: 7/25/17 and 7/26/17

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
NA	No Lutocline Sample	NA	NA	NA	NA	Lab Homogenize and Subsample
0.0 - 0.1	MM-TP _ 072517 _SED_00-01	1142	MeHg, Hg, TOC, OC	Triple Replicate	1 x 16 oz Plastic	
0.1 - 0.3	MM-TP _ 072517 _SED_01-03	1143	MeHg, Hg, TOC, OC	MS/MSD	2 x 16 oz Plastic	
0.3 - 0.5	MM-TP _ 072617 _SED_03-05	0908	Hg, TOC, OC	None	1 x 8 oz Plastic 2 x 8 oz Amber Glass	Field Lab Homogenize and Subsample
0.5 - 1.0	MM-TP _ 072617 _SED_05-10	0910	Hg, TOC, OC	None	1 x 8 oz Plastic 2 x 8 oz Amber Glass	

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
Interval 0.0 = Determined by light disappearance test
Samples were processed/ sectioned in the Winterport field office.
Geographic coordinates provided on Core/Grab log.

Technician Name: Lauren Tierney
QA/QC by: Julie Pallozzi

Technician Signature:
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

INTERTIDAL SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: OB-01
WO: 4A-050 Biota Co-Located

Core Collection

Core Collection Team: BW, LT, KB, DL
Core Collection Date: 08/02/2017
Core Collection Time: 12:39
Instant Freeze (Y/N): Yes
Collection Method: Push Corer
Liner Type: 3" D x 24" L Plastic
Est. Volume: 47 oz/ft

	Core Recovery		
Sleeve Length in Decimal Feet:	2.0	2.0	2.0
Depth Cored in Decimal Feet:	1.5	1.5	1.5
Recovered Core Length in Decimal Feet:	0.6	0.45	.0
% Recovery (Recovered Core/Depth Cored):	40%	30%	0%

Core Log

Core Logger: BW
Woody Debris (Y/N): No
Salinity of Water at Mudline: 8.0 PSU (o/00)

Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0.0-0.015	Very dark grayish brown (10YR 3/2), saturated, SILT with fine sand (15%), no plasticity
0.015-0.35	Dark gray (10YR 4/1), saturated, poorly graded sandy SILT (49% fine to medium sand), with fine cobbles, no plasticity
0.35-0.5	Very dark grayish brown (10YR 3/2), wet, SILT with sand (15% fine sand), no plasticity
Notes	Water level 3', falling tide, surface salinity 10

No photo taken

Sample Collection

Sample Collection Team: KCB,BPW
Sample Collection Date: 8/15/17 and 8/17/17

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
NA	No Lutocline Sample	N/A	N/A	N/A	N/A	
0.0 - 0.1	OB-01 _ 081517 _SED_00-01	1655	MeHg, Hg, TOC, OC	None	2 x 8 oz Plastic	Lab Homogenize and Subsample
0.1 - 0.3	OB-01 _ 081517 _SED_01-03	1657	MeHg, Hg, TOC, OC	None	2 x 16 oz Plastic	
0.3 - 0.5	OB-01 _ ;081717 _SED_03-05	1852	Hg, TOC, OC	None	3 x 4 oz Plastic	Field Lab Homogenize and Subsample
0.5 - 1.0	OB-01 _ _SED_05-10	N/A	Hg, TOC, OC	not enough volume	3 x 4 oz Plastic	

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
Interval 0.0 = Determined by light disappearance test
Samples were processed/ sectioned in the Winterport field office with windows closed.
Geographic coordinates provided on Core/Grab log.

Technician Name: Lauren Tierney
QA/QC by: Julie Pallozzi

Technician Signature: 
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

INTERTIDAL SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: OB-05SW
WO: 4A-050 Biota Co-Located

Core Collection

Core Collection Team: BW,KB
Core Collection Date: 08/17/2017
Core Collection Time: 12:37
Instant Freeze (Y/N): Yes
Collection Method: Push Corer
Liner Type: 3" D x 24" L Plastic
Est. Volume: 47 oz/ft

	Core Recovery		
Sleeve Length in Decimal Feet:	2.0	2.0	2.0
Depth Cored in Decimal Feet:	1.5	1.5	1.5
Recovered Core Length in Decimal Feet:	0.35	0.3	0.55
% Recovery (Recovered Core/Depth Cored):	23%	20%	37%

Core Log

Core Logger: KMC
Woody Debris (Y/N): Yes
Salinity of Water at Mudline: 9.0 PSU (o/00)

Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0.0-0.4	2.5Y 3/2, Gravelly sand with cobble, 80% gravel with 15% sand 5% cobble, Wet, No organisms, well graded, no roots

Photo on Tablet 12

Sample Collection

Sample Collection Team: KCB, BPW
Sample Collection Date: 8/17/17 and 8/18/17

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
NA	No Lutocline Sample	NA	NA	NA	NA	Lab Homogenize and Subsample
0.0 - 0.1	OB-05SW _ 081717 _SED_00-01	2115	MeHg, Hg, TOC, OC	None	2 x 8 oz Plastic	
0.1 - 0.3	OB-05SW _ 081717 _SED_01-03	2117	MeHg, Hg, TOC, OC	None	2 x 16 oz Plastic	
0.3 - 0.5	OB-05SW _ 081817 _SED_03-05	1025	Hg, TOC, OC	None	3 x 4 oz Plastic	Field Lab Homogenize and Subsample
0.5 - 1.0	Not enough volume for sample	NA	NA	NA	NA	

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
Interval 0.0 = Determined by light disappearance test
Samples were processed/ sectioned in the Winterport field office
Geographic coordinates provided on Core/Grab log.

Technician Name: Brad Wolfe
Technician Signature:

QA/QC by: Lauren Tierney
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

INTERTIDAL SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: OV-04
WO: 4A-040 Annual

Core Collection

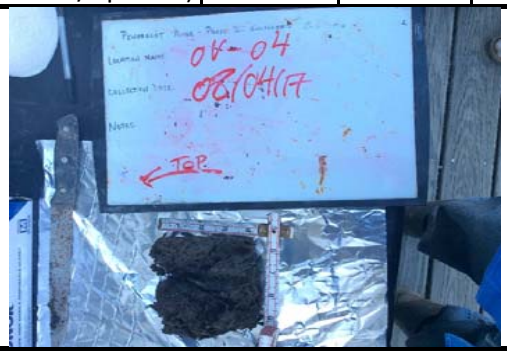
Core Collection Team: DL, LT
Core Collection Date: 08/04/2017
Core Collection Time: 08:23
Instant Freeze (Y/N): Yes
Collection Method: Push Corer
Liner Type: 3" D x 24" L Plastic
Est. Volume: 47 oz/ft

Core Recovery		
Sleeve Length in Decimal Feet:	2.0	2.0	2.0
Depth Cored in Decimal Feet:	1.5	1.5	1.5
Recovered Core Length in Decimal Feet:	0.45	0.53	0.5
% Recovery (Recovered Core/Depth Cored):	30%	35%	33%

Core Log

Core Logger: KMC
Woody Debris (Y/N): Y
Salinity of Water at Mudline: .0 PSU (o/00)

Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0-0.4	2.5Y4/3, Silt, 100% Silt., WET, Worms, strong organic odor, strong plasticity, roots



Sample Collection

Sample Collection Team: KCB, BPW
Sample Collection Date: 8/15/17 and 8/7/17

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
NA	No Lutocline Sample	N/A	N/A	N/A	N/A	Lab Homogenize and Subsample
0.0 - 0.1	OV-04 _ 081517 _SED_00-01	1803	MeHg, Hg, TOC, OC	None	2 x 8 oz Plastic	
0.1 - 0.3	OV-04 _ 081517 _SED_01-03	1805	MeHg, Hg, TOC, OC	None	2 x 16 oz Plastic	
0.3 - 0.5	OV-04 _ 081717 _SED_03-05	1858	Hg, TOC, OC	None	3 x 4 oz Plastic	Field Lab Homogenize and Subsample
0.5 - 1.0	OV-04 _ _SED_05-10	N/A	Hg, TOC, OC	Not enough volume	3 x 4 oz Plastic	

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
Interval 0.0 = Determined by light disappearance test
Samples were processed/ sectioned in the Winterport field office.
Geographic coordinates provided on Core/Grab log.

Technician Name: Lauren Tierney
Technician Signature:

QA/QC by:
Julie Pallozzi
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

INTERTIDAL SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: OV-04A
WO: 4A-050 Biota Co-Located

Core Collection

Core Collection Team: DL, LT
Core Collection Date: 08/04/2017
Core Collection Time: 08:30
Instant Freeze (Y/N): Yes
Collection Method: Push Corer
Liner Type: 3" D x 24" L Plastic
Est. Volume: 47 oz/ft

	Core Recovery		
Sleeve Length in Decimal Feet:	2.0	2.0	2.0
Depth Cored in Decimal Feet:	1.5	1.5	1.5
Recovered Core Length in Decimal Feet:	0.45	0.7	0.35
% Recovery (Recovered Core/Depth Cored):	30%	47%	23%

Core Log

Core Logger: KMC
Woody Debris (Y/N): N
Salinity of Water at Mudline: 0 PSU (o/00)

Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0.0-0.05	2.5Y 4/2, Silty sand, 70% silt 30% sand, WET, no organisms, no odor, non plastic, some roots
0.05-0.4	2.5Y 3/2, Coarse sand with medium gravel, 70% coarse sand, 20% medium sand, 10% medium gravel, well graded, no roots

Sample Collection

Sample Collection Team: KCB, BPW
Sample Collection Date: 8/15/17 and 8/17/17

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
NA	No Lutocline Sample	NA	NA	NA	NA	
0.0 - 0.1	OV-04A _ 081517 _SED_00-01	1735	MeHg, Hg, TOC, OC	None	2 x 8 oz Plastic	Lab Homogenize and Subsample
0.1 - 0.3	OV-04A _ 081517 _SED_01-03	1737	MeHg, Hg, TOC, OC	None	2 x 16 oz Plastic	
0.3 - 0.5	OV-04A _ 081717 _SED_03-05	1842	Hg, TOC	None	2 x 4 oz Plastic	Field Lab Homogenize and Subsample
0.5 - 1.0	OV-04A _ 081717 _SED_05-10	1844	Hg, TOC, OC	None	3 x 4 oz Plastic	

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
Interval 0.0 = Determined by light disappearance test
Samples were processed/ sectioned in the Winterport field office
Geographic coordinates provided on Core/Grab log.

Technician Name: Lauren Tierney
QA/QC by: Julie Pallozzi

Technician Signature:
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

INTERTIDAL SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: PI-01
WO: 4A-050 Biota Co-Located

Core Collection

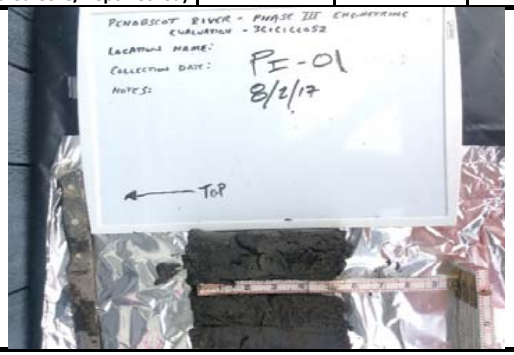
Core Collection Team: LT
Core Collection Date: 08/02/2017
Core Collection Time: 16:37
Instant Freeze (Y/N): Yes
Collection Method: Push Corer
Liner Type: 3" D x 24" L Plastic
Est. Volume: 47 oz/ft

	Core Recovery		
Sleeve Length in Decimal Feet:	2.0	2.0	2.0
Depth Cored in Decimal Feet:	1.5	1.5	1.5
Recovered Core Length in Decimal Feet:	0.8	0.8	0.65
% Recovery (Recovered Core/Depth Cored):	53%	53%	43%

Core Log

Core Logger: BPW
Woody Debris (Y/N): Yes
Salinity of Water at Mudline: 19.0 PSU (o/00)

Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0.0-0.15	10yr 4/1 dark gray, silt with sand, 95% silt, 5%fine grained sand, saturated, no roots, no odor, low plasticity, no organisms, fine wood sawdust.
0.15-0.55	10yr 3/2 very dark grayish brown, silt with sand, 85% silt, 15% fine frained sand, wet, no roots, biological odor, med plasticity, no organisms, woody sawdust.
Notes:	Push cores collect from exposed sediment, salinity taken from edge of water, 100' away



Sample Collection

Sample Collection Team: KCB,BPW
Sample Collection Date: 8/15/17 and 8/17/17

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
NA	No Lutocline Sample	NA	NA	NA	NA	Lab Homogenize and Subsample
0.0 - 0.1	PI-01 _ 081517 _SED_00-01	1550	MeHg, Hg, TOC, OC	None	2 x 8 oz Plastic	
0.1 - 0.3	PI-01 _ 081517 _SED_01-03	1551	MeHg, Hg, TOC, OC	None	2 x 16 oz Plastic	
0.3 - 0.5	PI-01 _ 081717 _SED_03-05	1834	Hg, TOC, OC	None	3 x 4 oz Plastic	Field Lab Homogenize and Subsample
0.5 - 1.0	PI-01 _ 081717 _SED_05-10	1836	Hg, TOC, OC	None	3 x 4 oz Plastic	

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
Interval 0.0 = Determined by light disappearance test
Samples were processed/ sectioned in the Winterport field office
Geographic coordinates provided on Core/Grab log.

Technician Name: Lauren Tierney
QA/QC by: Julie Pallozzi

Technician Signature: Lauren Tierney
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

INTERTIDAL SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: SVE-02INT
WO: 4A-050 Biota Co-Located

Core Collection

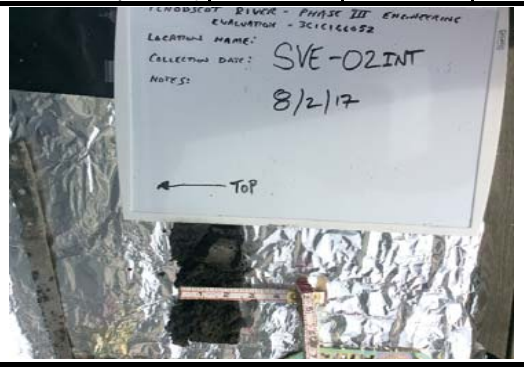
Core Collection Team: KB
Core Collection Date: 08/02/2017
Core Collection Time: 14:17
Instant Freeze (Y/N): Yes
Collection Method: Push Corer
Liner Type: 3" D x 24" L Plastic
Est. Volume: 47 oz/ft

	Core Recovery		
Sleeve Length in Decimal Feet:	2.0	2.0	2.0
Depth Cored in Decimal Feet:	1.5	1.5	1.5
Recovered Core Length in Decimal Feet:	0.35	0.45	0.5
% Recovery (Recovered Core/Depth Cored):	23%	30%	33%

Core Log

Core Logger: BPW
Woody Debris (Y/N): Yes
Salinity of Water at Mudline: 24.0 PSU (o/00)

Interval	Description color, grain size, odor, debris, roots, organisms, etc.
	worm holes at surface
0.0-0.2.5	10yr 3/1 very dark gray, silty sand with cobbles, 60Z% poorly graded sand, 30% silt, 10% small cobbles,saturated, no roots, no odor, no plasticity, no odor, sand worm, woody sawdust.
Notes:	Exposed sediment at low tide, surface salinity 24



Sample Collection

Sample Collection Team: KCB, BPW
Sample Collection Date: 8/15/17 and 8/17/17

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
NA	No Lutocline Sample	NA	NA	NA	NA	
0.0 - 0.1	SVE-02INT _ 081517 _SED_00-01	1815	MeHg, Hg, TOC, OC	MS/MSD	2 x 8 oz Plastic	Lab Homogenize and Subsample
0.1 - 0.3	SVE-02INT _ 081517 _SED_01-03	1817	MeHg, Hg, TOC, OC	None	2 x 16 oz Plastic	
0.3 - 0.5	SVE-02INT _ 081717 _SED_03-05	1854	Hg, TOC, OC	None	3 x 4 oz Plastic	Field Lab Homogenize and Subsample
0.5 - 1.0	Not enough volume for sample	NA	NA	NA	NA	

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
Interval 0.0 = Determined by light disappearance test
Samples were processed/ sectioned in the Winterport field office.
Geographic coordinates provided on Core/Grab log.

Technician Name: Lauren Tierney
QA/QC by: Julie Pallozzi

Technician Signature: Lauren Tierney
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

INTERTIDAL SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: VI-W
WO: 4A-050 Biota Co-Located

Core Collection

Core Collection Team: BPW,KCB
Core Collection Date: 08/16/2017
Core Collection Time: 14:10
Instant Freeze (Y/N): Yes
Collection Method: Push Corer
Liner Type: 3" D x 24" L Plastic
Est. Volume: 47 oz/ft

	Core Recovery		
Sleeve Length in Decimal Feet:	2.0	2.0	2.0
Depth Cored in Decimal Feet:	1.5	1.5	1.5
Recovered Core Length in Decimal Feet:	1.0	0.9	0.65
% Recovery (Recovered Core/Depth Cored):	67%	60%	43%

Core Log

Core Logger: KMC
Woody Debris (Y/N): No
Salinity of Water at Mudline 20.0 PSU (o/00)

Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0.0-0.05	10YR 2/2, silty fine sand, 70% silt, 30% fine sand, wet, no organism, no odor, low plasticity, no roots
0.05-0.3	10YR 2/1, sandy silt, 60% fine sand, 40% silt, poorly graded, wet, gastropiods @ 0.2, no odor, no
"@0.3	2.5YR 4/6, larger gastropiods and coarse gravel lens
0.35-.65	GLEY 5/5GY, clay, 100% clay, wet, no organsims, no odor, high plasticity, no roots

Sample Collection

Sample Collection Team: KCB, BPW
Sample Collection Date: 8/17/2017 and 8/18/17

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
NA	No Lutocline Sample	NA	NA	NA	NA	Lab Homogenize and Subsample
0.0 - 0.1	VI-W _ 081717 _SED_00-01	2035	MeHg, Hg, TOC, OC	None	2 x 8 oz Plastic	
0.1 - 0.3	VI-W _ 081717 _SED_01-03	2040	MeHg, Hg, TOC, OC	None	2 x 16 oz Plastic	
0.3 - 0.5	VI-W _ 081817 _SED_03-05	1005	Hg, TOC, OC	None	3 x 4 oz Plastic	Field Lab Homogenize and Subsample
0.5 - 1.0	VI-W _ 081817 _SED_05-10	1010	Hg, TOC, OC	None	3 x 4 oz Plastic	

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
Interval 0.0 = Determined by light disappearance test
Samples were processed/ sectioned in the Winterport field office
Geographic coordinates provided on Core/Grab log.

Technician Name: Brad Wolfe
QA/QC by: Lauren Tierney

Technician Signature:
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

SUBTIDAL SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: BO-04
WO: 4A-050 Biota Co-Located

Ponar Collection

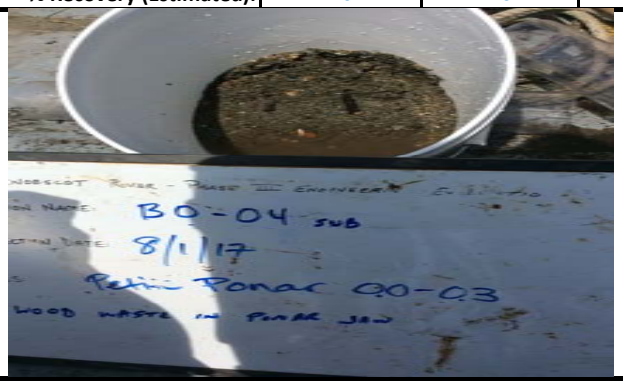
Grab Collection Team: DL KB
Grab Collection Date: 08/01/2017
Grab Collection Time: 14:33
Instant Freeze (Y/N): Yes
Collection Method: Ponar
Ponar Model: Petite
Ponar Serial Number: 008890

	Ponar Recovery		
Deployment Number:	1	2	3
% Recovery (Estimated):	20	20	20

Ponar Log

Ponar Logger: KB DL
Woody Debris (Y/N): No
Water Depth (ft): 17.4
Salinity of Surface Water: 0 PSU (o/00)
Salinity of Water at Mudline: 0 PSU (o/00)

Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0.0 - 0.3	Gps 44 45.171n. 68 48.846w Sticks wood stuck in ponar 2.5Y 4/1 saturated no odor course poorly graded sand and fine gravel. No plastic loose no organisms or roots observed. Note small bits of slag. No wood observed in sample



Sample Collection

Sample Collection Team: KB, DL
Sample Collection Date: 8/1/2017

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
0.0 - 0.3	BO-04 _ 080117 _SED_00-03	1400	MeHg, Hg, TOC, OC	None	1 x 8 oz Plastic 2 x 8 oz Amber Glass	Field Homogenize and Subsample

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
The petite ponar is capable of achieving a sample depth of 0.3 feet below ground surface.
Geographic coordinates provided on Core/Grab Log.

Technician Name: Kendra Bavor
QA/QC by: Lauren Tierney

Technician Signature:
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

SUBTIDAL SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: ESFP-E
WO: 4A-050 Biota Co-Located

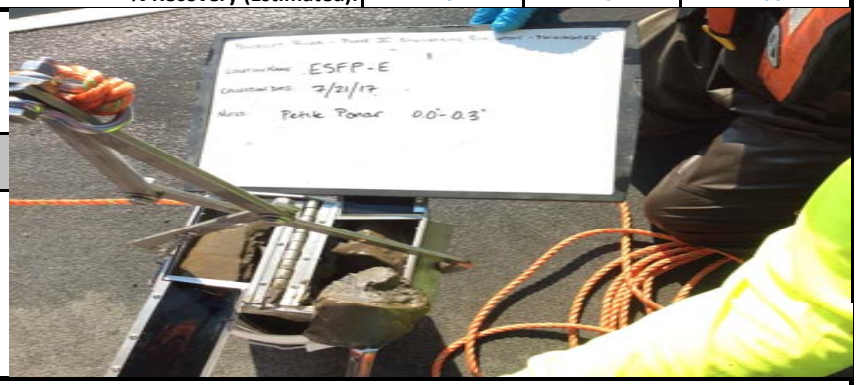
Ponar Collection

Grab Collection Team: FM, BW, JP, LT, KB
Grab Collection Date: 07/21/2017
Grab Collection Time: 08:06
Instant Freeze (Y/N): Yes
Collection Method: Ponar
Ponar Model: Petite
Ponar Serial Number: 008890

	Ponar Recovery		
Deployment Number:	1	2	3
% Recovery (Estimated):	10	40	100

Ponar Log

Ponar Logger: BW, FM
Woody Debris (Y/N): No
Water Depth (ft): 33.6
Salinity of Surface Water: 25 PSU (o/00)
Salinity of Water at Mudline: 26 PSU (o/00)



Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0.0 - 0.3	Dark gray (10YR4/1), SILT with sand (5%), no odor, no plasticity due to liquid, super saturated, no roots

Sample Collection

Sample Collection Team: FM, BW, JP, LT, KB
Sample Collection Date: 7/21/2017

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
0.0 - 0.3	ESFP-E _ 072117 _SED_00-03	0830	MeHg, Hg, TOC, OC	None	3 x 8 oz Plastic	Field Homogenize and Subsample

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
The petite ponar is capable of achieving a sample depth of 0.3 feet below ground surface.
Geographic coordinates provided on Core/Grab Log.

Technician Name: Julie Pallozzi
QA/QC by: Lauren Tierney

Technician Signature: J Pallozzi
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

SUBTIDAL SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: MM-MR
WO: 4A-050 Biota Co-Located

Ponar Collection

Grab Collection Team: KB, LT
Grab Collection Date: 08/01/2017
Grab Collection Time: 10:30
Instant Freeze (Y/N): Yes
Collection Method: Ponar
Ponar Model: Petite
Ponar Serial Number: 008890

	Ponar Recovery		
Deployment Number:	1	2	3
% Recovery (Estimated):	5%	5%	30%

Ponar Log

Ponar Logger: BW
Woody Debris (Y/N): Yes
Water Depth (ft): 9.9
Salinity of Surface Water: 10 PSU (o/00)
Salinity of Water at Mudline: 15 PSU (o/00)

Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0.0 - 0.3	Very dark gray (10YR 3/1), saturated, silty poorly graded SAND (25% silt), cobbles, plasticity NA due to moisture, clams, woody debris observed in ponar

Sample Collection

Sample Collection Team: KB, LT
Sample Collection Date: 8/1/2017

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
0.0 - 0.3	MM-MR _ 080117 _SED_00-03	1035	MeHg, Hg, TOC, OC	Triple Replicate	1 x 8 oz Plastic 2 x 8 oz Amber Glass	Field Homogenize and Subsample

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
The petite ponar is capable of achieving a sample depth of 0.3 feet below ground surface.
Geographic coordinates provided on Core/Grab Log.

Technician Name: Lauren Tierney
Technician Signature: Lauren Tierney
QA/QC by: Julie Pallozzi
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

SUBTIDAL SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: OB-04
WO: 4A-050 Biota Co-Located

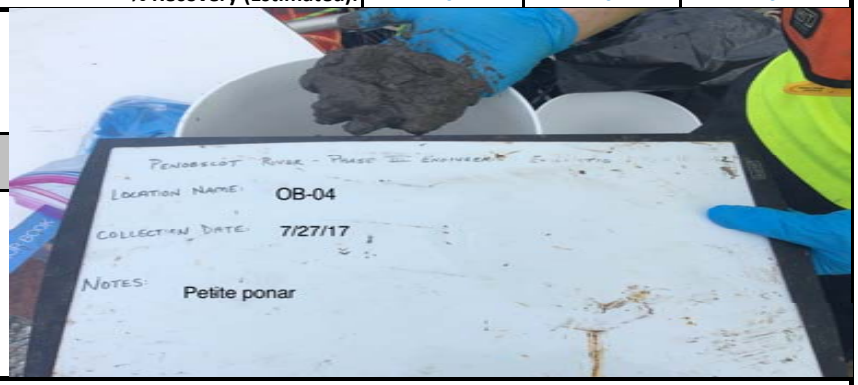
Ponar Collection

Grab Collection Team: LT JP KB FM BE
Grab Collection Date: 07/27/2017
Grab Collection Time: 17:22
Instant Freeze (Y/N): Yes
Collection Method: Ponar
Ponar Model: Petite
Ponar Serial Number: 008890

	Ponar Recovery		
Deployment Number:	1	2	3
% Recovery (Estimated):	10	10	20

Ponar Log

Ponar Logger: BW
Woody Debris (Y/N): No
Water Depth (ft): 24
Salinity of Surface Water: 10 PSU (o/00)
Salinity of Water at Mudline: 10 PSU (o/00)



Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0.0 - 0.3	Dark gray (10 YR 4/1), saturated, silty poorly graded SAND with cobbles, angular

Sample Collection

Sample Collection Team: LT JP KB FM BW
Sample Collection Date: 7/27/2017

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
0.0 - 0.3	OB-04 _ 072717 _SED_00-03	1720	MeHg, Hg, TOC, OC	None	1 x 8 oz Plastic 2 x 8 oz Amber Glass	Field Homogenize and Subsample

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
The petite ponar is capable of achieving a sample depth of 0.3 feet below ground surface.
Geographic coordinates provided on Core/Grab Log.

Technician Name: Lauren Tierney
Technician Signature: Lauren Tierney
QA/QC by: Julie Pallozzi
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

SUBTIDAL SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: OB-05S
WO: 4A-050 Biota Co-Located

Ponar Collection

Grab Collection Team: FM, BW, KB, LT, JP
Grab Collection Date: 07/27/2017
Grab Collection Time: 16:29
Instant Freeze (Y/N): Yes
Collection Method: Ponar
Ponar Model: Petite
Ponar Serial Number: 008890

	Ponar Recovery		
Deployment Number:	1	2	3
% Recovery (Estimated):	70	NA	NA

Ponar Log

Ponar Logger: BW FM
Woody Debris (Y/N): No
Water Depth (ft): 12
Salinity of Surface Water: 3 PSU (o/00)
Salinity of Water at Mudline: 4 PSU (o/00)

Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0.0 - 0.3	Very dark brown (10YR 2/2), super saturated, SILT with sand (20% fine sand), plasticity MA due to moisture

Sample Collection

Sample Collection Team: LT, JP, KB, FM, BW
Sample Collection Date: 7/27/2017

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
0.0 - 0.3	OB-05S _ 072717 _SED_00-03	1630	MeHg, Hg, TOC, OC	None	1 x 8 oz Plastic 2 x 8 oz Amber Glass	Field Homogenize and Subsample

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
The petite ponar is capable of achieving a sample depth of 0.3 feet below ground surface.
Geographic coordinates provided on Core/Grab Log.

Technician Name: Lauren Tierney
QA/QC by: Julie Pallozzi

Technician Signature:
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

SUBTIDAL SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: SVE-EAC
WO: 4A-050 Biota Co-Located

Ponar Collection

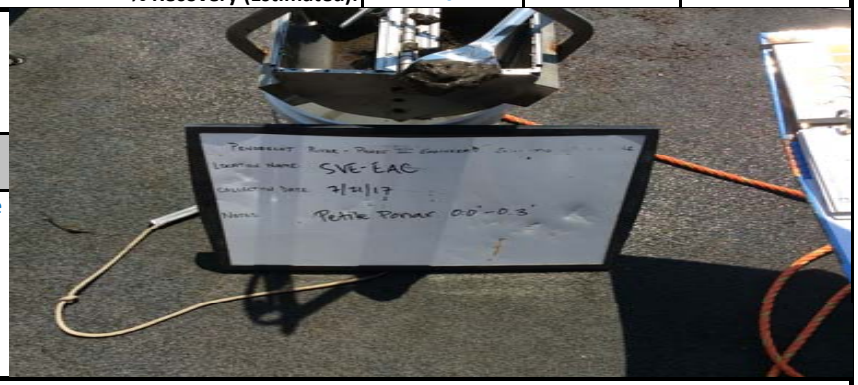
Grab Collection Team: FM, KB, LT
Grab Collection Date: 07/21/2017
Grab Collection Time: 11:20
Instant Freeze (Y/N): Yes
Collection Method: Ponar
Ponar Model: Petite
Ponar Serial Number: 008890

	Ponar Recovery		
Deployment Number:	1	2	3
% Recovery (Estimated):	40	NA	NA

Ponar Log

Ponar Logger: FM
Woody Debris (Y/N): Yes
Water Depth (ft): 39.0
Salinity of Surface Water: 20 PSU (o/00)
Salinity of Water at Mudline: 25 PSU (o/00)

Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0.0 - 0.3	Dark gray (5YR 4/1), super saturated, SILT with fine sand (10% fine sand 90% SILT), plasticity NA due to moisture, no roots, fine wood chips on surface



Sample Collection

Sample Collection Team: FM, LT, KB
Sample Collection Date: 7/21/2017

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
0.0 - 0.3	SVE-EAC _ 072117 _SED_00-03	11:37	MeHg, Hg, TOC, OC	Triple Replicate	3 x 8 oz Plastic	Field Homogenize and Subsample

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
The petite ponar is capable of achieving a sample depth of 0.3 feet below ground surface.
Geographic coordinates provided on Core/Grab Log.

Technician Name: Lauren Tierney
Technician Signature:
QA/QC by: Julie Pallozzi
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

SUBTIDAL SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: SVE-TIP
WO: 4A-040 Annual

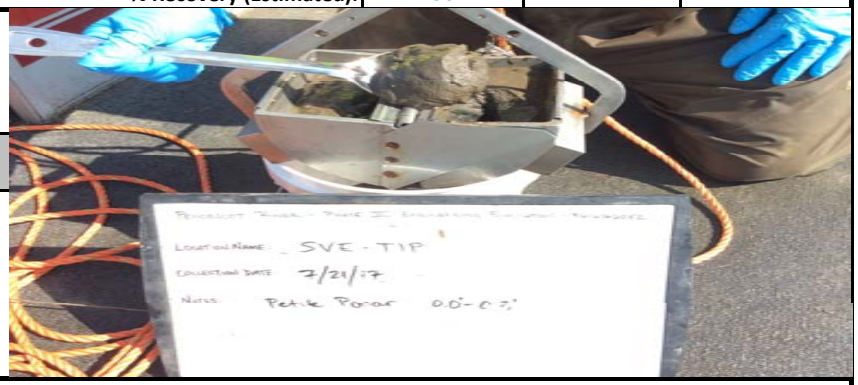
Ponar Collection

Grab Collection Team: BW, FM, KB, JP, LT
Grab Collection Date: 07/21/2017
Grab Collection Time: 09:29
Instant Freeze (Y/N): Yes
Collection Method: Ponar
Ponar Model: Petite
Ponar Serial Number: 008890

	Ponar Recovery		
Deployment Number:	1	2	3
% Recovery (Estimated):	90	NA	NA

Ponar Log

Ponar Logger: BW
Woody Debris (Y/N): No
Water Depth (ft): 17.1
Salinity of Surface Water: 25 PSU (o/00)
Salinity of Water at Mudline: 24 PSU (o/00)



Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0.0 - 0.3	Surface dark grayish brown (10YR4/2), underneath very dark grayish brown (10YR3/2), sandy SILT, 80% silt, 20% poorly graded fine grain sand, saturated, slight organic odor, plasticity NA due to water content, no roots, no organisms observed

Sample Collection

Sample Collection Team: FM, BW, KB, LT, JP
Sample Collection Date: 7/21/2017

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
0.0 - 0.3	SVE-TIP _ 072117 _SED_00-03	09:29	MeHg, Hg, TOC, OC	None	3 x 8 oz Plastic	Field Homogenize and Subsample

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
The petite ponar is capable of achieving a sample depth of 0.3 feet below ground surface.
Geographic coordinates provided on Core/Grab Log.

Technician Name: Julie Pallozzi
QA/QC by: Lauren Tierney

Technician Signature: J Pallozzi
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

WETLAND SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: ADD-01
WO: 4A-050 Biota Co-Located

Core Collection

Core Collection Team: KCB FKM
Core Collection Date: 07/13/2017
Core Collection Time: 13:04
Instant Freeze (Y/N): Yes
Collection Method: Slide Hammer
Liner Type: 3" D x 24" L Plastic
Est. Volume: 47 oz/ft

	Core Recovery	
Sleeve Length in Decimal Feet:	2.0	2.0
Depth Cored in Decimal Feet:	1.5	1.5
Recovered Core Length in Decimal Feet:	0.99	0.99
% Recovery (Recovered Core/Depth Cored):	66%	66%

Test Pit Log

Test Pit Logger: FKM
Digging Method: Shooter Shovel
Test Pit Dimensions: 6" x 6" x 18"
Woody Debris (Y/N): No
Vegetation Type: Carex sp. 20%. Bullrush 80%
Approx. # Stems/ft^2: 30

Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0.0-0.15	7.5YR3/1 very dark grey to dark brown 7.5R3/4. Mottled dark grey. Saturated. Fine dense roots. Diameter hairy to 0.01 thickness. No plasticty soft silty(10%) root mass90%
0.15-0.7	7YR3/4 dark brown. Silty same as above
0.7-1.3	7.5YR5/1 grey clay with some silt (15% silt) Dead organic mater (30%) Some plasticity. Soft saturated
Notes	0.1' water depth bgs

Sample Collection

Sample Collection Team: BW, JP
Sample Collection Date: 7/18/17 and 7/19/17

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
0.0 - 0.1	ADD-01 _ 071817 _SED_00-01	15:06	MeHg, Hg, TOC, OC	None	1 x 16 oz Plastic	Lab Homogenize and Subsample
0.1 - 0.3	ADD-01 _ 071817 _SED_01-03	15:08	MeHg, Hg, TOC, OC	None	2 x 16 oz Plastic	
0.3 - 0.5	ADD-01 _ 071917 _SED_03-05	13:14	Hg, TOC, OC	MS/MSD	1 x 8 oz Plastic 2 x 8 oz Amber Glass	Field Lab Homogenize and Subsample
0.5 - 1.0	ADD-01 _ 071917 _SED_05-10	13:17	Hg, TOC, OC	None	1 x 8 oz Plastic 2 x 8 oz Amber Glass	

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
0.0 = Scalp
Samples were processed/sectioned in the Winterport field office
Geographic coordinates provided on Core/Grab Log.

Technician Name: Julie Pallozzi
QA/QC by: Lauren Tierney

Technician Signature: JPallozzi
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

WETLAND SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: MMSE-1_N1
WO: 4A-050 Biota Co-Located

Core Collection

Core Collection Team: FM, JP
Core Collection Date: 07/12/2017
Core Collection Time: 10:04
Instant Freeze (Y/N): Yes
Collection Method: Slide Hammer
Liner Type: 3" D x 24" L Plastic
Est. Volume: 47 oz/ft

	Core Recovery	
Sleeve Length in Decimal Feet:	2.0	2.0
Depth Cored in Decimal Feet:	1.5	1.5
Recovered Core Length in Decimal Feet:	1.3	1.5
% Recovery (Recovered Core/Depth Cored):	87%	100%

Test Pit Log

Test Pit Logger: FM
Digging Method: Shooter Shovel
Test Pit Dimensions: 6" x 6" x 18"
Woody Debris (Y/N): No
Vegetation Type: Grasses
Approx. # Stems/ft^2: 1440

Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0-0.05	Very dark gray [7.5YR3/1], very moist, sulfury, dead organic matter, <10% SILT, nonplastic, no organisms observed, dense root mass
0.05-1.35	Brown [7.5YR4/3], very moist to saturated, sulfur odor, SILT with clay, clay<15%, nonplastic, soft, dead organic matter, decomposed grass, thin roots, no organisms observed
Notes	Core material behaves like a sponge due to composition of predominantly dead organic matter. Depth to water is 1ft bgs

Sample Collection

Sample Collection Team: BW JP
Sample Collection Date: 7/18/17 and 7/19/17

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
0.0 - 0.1	MMSE-1_N1 _ 071817 _SED_00-01	1816	MeHg, Hg, TOC, OC	None	2 x 8 oz Plastic	Lab Homogenize and Subsample
0.1 - 0.3	MMSE-1_N1 _ 071817 _SED_01-03	1818	MeHg, Hg, TOC, OC	None	2 x 16 oz Plastic	
0.3 - 0.5	MMSE-1_N1 _ 071917 _SED_03-05	1342	Hg, TOC, OC	None	3 x 4 oz Plastic	Field Lab Homogenize and Subsample
0.5 - 1.0	MMSE-1_N1 _ 071917 _SED_05-10	1345	Hg, TOC, OC	None	3 x 4 oz Plastic	

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
0.0 = Scalp
Samples were processed/sectioned in the Winterport field office
Geographic coordinates provided on Core/Grab Log.

Technician Name: Julie Pallozzi
QA/QC by: Lauren Tierney

Technician Signature: J Pallozzi
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

WETLAND SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: MMSE-1_N2
WO: 4A-050 Biota Co-Located

Core Collection

Core Collection Team: FM, JP
Core Collection Date: 07/12/2017
Core Collection Time: 11:20
Instant Freeze (Y/N): Yes
Collection Method: Slide Hammer
Liner Type: 3" D x 24" L Plastic
Est. Volume: 47 oz/ft

	Core Recovery	
Sleeve Length in Decimal Feet:	2.0	2.0
Depth Cored in Decimal Feet:	1.5	1.5
Recovered Core Length in Decimal Feet:	1.3	1.3
% Recovery (Recovered Core/Depth Cored):	87%	87%

Test Pit Log

Test Pit Logger: FM
Digging Method: Shooter Shovel
Test Pit Dimensions: 6" x 6" x 18"
Woody Debris (Y/N): Yes
Vegetation Type: Grasses
Approx. # Stems/ft^2: 1440

Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0-0.35	Brown[7.5YR4/3], saturated, rotten odor, dense root mass, root thickness varies from thin hair size to 0.01 ft, SILT 0-10%, nonplastic, stiffness NA, no organisms observed, two black seams of organic matter very dark gray at 0.1 and .3 respectively
0.35-1.25	Brown[7.5YR4/3], saturated, rotten odor, increasing SILT content over 35%, nonplastic, soft, no organisms observed, some wood chips, plenty of dead organic matter, fine hair size roots throughout
	Water depth at 0.45 ft bgs

Sample Collection

Sample Collection Team: BW JP LT FM
Sample Collection Date: 7/24/2017 and 7/25/17

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
0.0 - 0.1	MMSE-1_N2 _ 072417 _SED_00-01	1225	MeHg, Hg, TOC, OC	None	1 x 16 oz Plastic	Lab Homogenize and Subsample
0.1 - 0.3	MMSE-1_N2 _ 072417 _SED_01-03	1227	MeHg, Hg, TOC, OC	None	2 x 16 oz Plastic	
0.3 - 0.5	MMSE-1_N2 _ 072517 _SED_03-05	1530	Hg, TOC, OC	None	1 x 8 oz Plastic 2 x 8 oz Amber Glass	Field Lab Homogenize and Subsample
0.5 - 1.0	MMSE-1_N2 _ 072517 _SED_05-10	1532	Hg, TOC, OC	MS/MSD	1 x 8 oz Plastic 2 x 8 oz Amber Glass	

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
0.0 = Scalp
Samples were processed/sectioned in the Winterport field office
Geographic coordinates provided on Core/Grab Log.

Technician Name: Julie Pallozzi
QA/QC by: Lauren Tierney

Technician Signature: J Pallozzi
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

WETLAND SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: MMSE-1_S1
WO: 4A-030 Wetland

Core Collection

Core Collection Team: LT, BW
Core Collection Date: 07/12/2017
Core Collection Time: 11:28
Instant Freeze (Y/N): Yes
Collection Method: Slide Hammer
Liner Type: 3" D x 24" L Plastic
Est. Volume: 47 oz/ft

	Core Recovery	
Sleeve Length in Decimal Feet:	2.0	2.0
Depth Cored in Decimal Feet:	1.5	1.5
Recovered Core Length in Decimal Feet:	1.0	0.9
% Recovery (Recovered Core/Depth Cored):	67%	60%

Test Pit Log

Test Pit Logger: BW
Digging Method: Shooter Shovel
Test Pit Dimensions: 6" x 6" x 18"
Woody Debris (Y/N): No
Vegetation Type: Typha, p grass, "A" grass from 7/11
Approx. # Stems/ft²: 1440 stems/sq ft

Interval	Description (color, grain size, odor, debris, roots, organisms, etc.)
0.0-0.4	Black (10YR 1/1) at surface, Dark brown (10 YR 3/3), saturated, slight organic odor, SILT with sand (90% SILT 10% sand), plasticity and stiffness NA due to Dense tightly packed fine root matter, worm top 0.1',
0.4-0.9	Very dark gray (10 YR 3/1), increased saturated, Increased organic odor, SILT WITH SAND (80% SILT 10% fine sand), low plasticity, non stiff, Diminishing root mass, 0.01 thick
0.9-1.2	Very dark grayish brown (10YR 3/2), biological odor, sandy SILT (75% SILT 25% fine sand), low plasticity, hair like roots
	Depth to water bgs 0.55'

Sample Collection

Sample Collection Team: BW, JP
Sample Collection Date: 7/18/2017 and 7/19/2017

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
0.0 - 0.1	MMSE-1_S1 _ 071817 _SED_00-01	1135	MeHg, Hg, TOC, OC	None	1 x 16 oz Plastic	Lab Homogenize and Subsample
0.1 - 0.3	MMSE-1_S1 _ 071817 _SED_01-03	1137	MeHg, Hg, TOC, OC	None	2 x 16 oz Plastic	
0.3 - 0.5	MMSE-1_S1 _ 071917 _SED_03-05	1005	Hg, TOC, OC	None	1 x 8 oz Plastic 2 x 8 oz Amber Glass	Field Lab Homogenize and Subsample
0.5 - 1.0	MMSE-1_S1 _ 071917 _SED_05-10	1008	Hg, TOC, OC	None	1 x 8 oz Plastic 2 x 8 oz Amber Glass	

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
0.0 = Scalp
Samples were processed/sectioned in the Winterport field office
Geographic coordinates provided on Core/Grab Log.

Technician Name: Julie Pallozzi
QA/QC by: Lauren Tierney

Technician Signature:
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

WETLAND SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: MMSE-1_S2
WO: 4A-030 Wetland

Core Collection

Core Collection Team: BW, LT
Core Collection Date: 07/12/2017
Core Collection Time: 12:02
Instant Freeze (Y/N): Yes
Collection Method: Slide Hammer
Liner Type: 3" D x 24" L Plastic
Est. Volume: 47 oz/ft

	Core Recovery	
Sleeve Length in Decimal Feet:	2.0	2.0
Depth Cored in Decimal Feet:	1.5	1.5
Recovered Core Length in Decimal Feet:	1.2	1.4
% Recovery (Recovered Core/Depth Cored):	80%	93%

Test Pit Log

Test Pit Logger: BW
Digging Method: Shooter Shovel
Test Pit Dimensions: 6" x 6" x 18"
Woody Debris (Y/N): Yes
Vegetation Type: Typha, p grass,
Approx. # Stems/ft^2: 1440 stems/sq ft

Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0.0-0.2	10YR 1/2 very dark brown, wet, SILT with sand (85% SILT 15% fine sand), plasticity and stiffness NA due to 0.03' diameter roots with hair like roots and woodchips
0.2-0.6	10 YR 3/2 very dark grayish brown, saturated, SILT with sand (90% SILT 10% sand), plasticity and stiffness NA due to 0.03' diameter roots with hair like roots
0.6-1.2	10 YR 3/3 dark brown, saturated, sandy SILT (80% ASILT 20% sand), low plasticity, hair like roots
	Depth to water bgs 1.1'

Sample Collection

Sample Collection Team: BW, JP
Sample Collection Date: 7/18/2017 and 7/19/2017

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
0.0 - 0.1	MMSE-1_S2 _ 071817 _SED_00-01	1324	MeHg, Hg, TOC, OC	None	1 x 16 oz Plastic	Lab Homogenize and Subsample
0.1 - 0.3	MMSE-1_S2 _ 071817 _SED_01-03	1326	MeHg, Hg, TOC, OC	None	2 x 16 oz Plastic	
0.3 - 0.5	MMSE-1_S2 _ 071917 _SED_03-05	1027	Hg, TOC, OC	None	1 x 8 oz Plastic 2 x 8 oz Amber Glass	Field Lab Homogenize and Subsample
0.5 - 1.0	MMSE-1_S2 _ 071917 _SED_05-10	1030	Hg, TOC, OC	MS/MSD	1 x 8 oz Plastic 2 x 8 oz Amber Glass	

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
0.0 = Scalp
Samples were processed/sectioned in the Winterport field office
Geographic coordinates provided on Core/Grab Log.

Technician Name: Julie Pallozzi
QA/QC by: Lauren Tierney

Technician Signature:
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

WETLAND SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: MMSW-C_N
WO: 4A-050 Biota Co-Located

Core Collection

Core Collection Team: BW, JP, LT
Core Collection Date: 07/13/2017
Core Collection Time: 11:38
Instant Freeze (Y/N): Yes
Collection Method: Slide Hammer
Liner Type: 3" D x 24" L Plastic
Est. Volume: 47 oz/ft

	Core Recovery	
Sleeve Length in Decimal Feet:	2.0	2.0
Depth Cored in Decimal Feet:	1.5	1.5
Recovered Core Length in Decimal Feet:	0.95	0.9
% Recovery (Recovered Core/Depth Cored):	63%	60%

Test Pit Log

Test Pit Logger: BW
Digging Method: Shooter Shovel
Test Pit Dimensions: 6" x 6" x 18"
Woody Debris (Y/N): No
Vegetation Type: Marsh grasses
Approx. # Stems/ft^2: 1440

Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0.0-0.5	Dark gray (10YR 4/1), saturated, SILT with sand (90% SILT 10% fine sand), plasticity NA due to high density root mass, up to 0.01 diameter, few 0.02 diameter
0.5-1.0	Dark grayish brown (10YR 4/2), saturated, sandy SILT (80% SILT 20% fine sand), non plastic due to moisture content, decreasing roots with depth, low density roots
1.0-1.4	Dark grayish brown (10YR 4/2), saturated, SILT with sand (85% SILT 15% fine sand), non plastic due to moisture, very low density roots
	Water in hole bgs 0.25'

Sample Collection

Sample Collection Team: BW, JP
Sample Collection Date: 7/18/2017 and 7/19/2017

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
0.0 - 0.1	MMSW-C_N _ 071817 _SED_00-01	16:31	MeHg, Hg, TOC, OC	None	1 x 16 oz Plastic	Lab Homogenize and Subsample
0.1 - 0.3	MMSW-C_N _ 071817 _SED_01-03	16:34	MeHg, Hg, TOC, OC	None	2 x 16 oz Plastic	
0.3 - 0.5	MMSW-C_N _ 071917 _SED_03-05	12:50	Hg, TOC, OC	None	1 x 8 oz Plastic 2 x 8 oz Amber Glass	Field Lab Homogenize and Subsample
0.5 - 1.0	MMSW-C_N _ 071917 _SED_05-10	12:53	Hg, TOC, OC	None	1 x 8 oz Plastic 2 x 8 oz Amber Glass	

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
0.0 = Scalp
Samples were processed/sectioned in the Winterport field office
Geographic coordinates provided on Core/Grab Log.

Technician Name: Julie Pallozzi
QA/QC by: Lauren Tierney

Technician Signature: J Pallozzi
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

WETLAND SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: MMSW-C_S
WO: 4A-050 Biota Co-Located

Core Collection

Core Collection Team: BW, JB, LT
Core Collection Date: 07/13/2017
Core Collection Time: 12:42
Instant Freeze (Y/N): Yes
Collection Method: Slide Hammer
Liner Type: 3" D x 24" L Plastic
Est. Volume: 47 oz/ft

Core Recovery	
Sleeve Length in Decimal Feet:	2.0	2.0
Depth Cored in Decimal Feet:	1.5	1.5
Recovered Core Length in Decimal Feet:	1.4	1.4
% Recovery (Recovered Core/Depth Cored):	93%	93%

Test Pit Log

Test Pit Logger: BW
Digging Method: Shooter Shovel
Test Pit Dimensions: 6" x 6" x 18"
Woody Debris (Y/N): No
Vegetation Type: A, P grass, marsh fern
Approx. # Stems/ft^2: 1440

Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0.3.3	Very dark brown(10YR2/2), SILT with sand 85% SILT 15% fine grain sand, heavy roots, no woodchips, no organic smell, roots dense thickness to 0.1, saturated
0.3-0.9	Very dark gray (10YR3/1), SILT with sand 90% SILT 10% fine grain sand, saturated, low plasticity, medium density roots, no odor
0.9-1.3	Dark brown (10YR3/3), saturated, SILT with fine grain sand, 95% SILT 5% fine grain sand, med to high plasticity, no odor, hair like roots
	Water level 1.5 ft bgs

Sample Collection

Sample Collection Team: LT JP BW FM
Sample Collection Date: 7/24/2017 and 7/25/17

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
0.0 - 0.1	MMSW-C_S _ 072417 _SED_00-01	1624	MeHg, Hg, TOC, OC	None	1 x 16 oz Plastic	Lab Homogenize and Subsample
0.1 - 0.3	MMSW-C_S _ 072417 _SED_01-03	1626	MeHg, Hg, TOC, OC	None	2 x 16 oz Plastic	
0.3 - 0.5	MMSW-C_S _ 072517 _SED_03-05	1642	Hg, TOC, OC	None	1 x 8 oz Plastic 2 x 8 oz Amber Glass	Field Lab Homogenize and Subsample
0.5 - 1.0	MMSW-C_S _ 072517 _SED_05-10	1644	Hg, TOC, OC	None	1 x 8 oz Plastic 2 x 8 oz Amber Glass	

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
0.0 = Scalp
Samples were processed/sectioned in the Winterport field office
Geographic coordinates provided on Core/Grab Log.

Technician Name: Julie Pallozzi
QA/QC by: Lauren Tierney

Technician Signature: J Pallozzi
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

WETLAND SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: MMSW-C_SW
WO: 4A-030 Wetland

Core Collection

Core Collection Team: BW, JP, LT
Core Collection Date: 07/13/2017
Core Collection Time: 14:13
Instant Freeze (Y/N): Yes
Collection Method: Slide Hammer
Liner Type: 3" D x 24" L Plastic
Est. Volume: 47 oz/ft

	Core Recovery	
Sleeve Length in Decimal Feet:	2.0	2.0
Depth Cored in Decimal Feet:	1.5	1.5
Recovered Core Length in Decimal Feet:	0.5	0.7
% Recovery (Recovered Core/Depth Cored):	33%	47%

Test Pit Log

Test Pit Logger: BW
Digging Method: Shooter Shovel
Test Pit Dimensions: 6" x 6" x 18"
Woody Debris (Y/N): No
Vegetation Type: Typha, marsh grass
Approx. # Stems/ft^2: 1440

Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0-0.6	Surface soil black (10YR2/1), very dark grayish brown (10YR3/2), SILT with sand 85% 15%, Roots 0.03ft diameter, saturated, high density roots, light organic odor, black organic nodules next to typha roots
0.6-0.9	Dark grayish grown (10YR4/2), saturated, 70% SILT 30% sand, medium density roots, plasticity NA too much root matter, slight organic odor
0.9-1.1	Dark grayish brown(10YR4/2), saturated, sandy SILT, 75% silt 25% sand, organic odor, plasticity NA, low root density, hair like diameter
	Water depth 0.4 ft bgs

Sample Collection

Sample Collection Team: JP LT BW FM
Sample Collection Date: 7/25/17 and 7/26/17

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
0.0 - 0.1	MMSW-C_SW _ 072517 _SED_00-01	1311	MeHg, Hg, TOC, OC	None	1 x 16 oz Plastic	Lab Homogenize and Subsample
0.1 - 0.3	MMSW-C_SW _ 072517 _SED_01-03	1312	MeHg, Hg, TOC, OC	None	2 x 16 oz Plastic	
0.3 - 0.5	MMSW-C_SW _ 072617 _SED_03-05	0901	Hg, TOC, OC	None	1 x 8 oz Plastic 2 x 8 oz Amber Glass	Field Lab Homogenize and Subsample
0.5 - 1.0	MMSW-C_SW _ 072617 _SED_05-10	0903	Hg, TOC, OC	None	1 x 8 oz Plastic 2 x 8 oz Amber Glass	

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
0.0 = Scalp
Samples were processed/sectioned in the Winterport field office
Geographic coordinates provided on Core/Grab Log.

Technician Name: Julie Pallozzi
QA/QC by: Lauren Tierney

Technician Signature: J Pallozzi
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

WETLAND SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: W-17-NE
WO: 4A-050 Biota Co-Located

Core Collection

Core Collection Team: KCB. BPW
Core Collection Date: 07/11/2017
Core Collection Time: 15:43
Instant Freeze (Y/N): Yes
Collection Method: Slide Hammer
Liner Type: 3" D x 24" L Plastic
Est. Volume: 47 oz/ft

	Core Recovery	
Sleeve Length in Decimal Feet:	2.0	2.0
Depth Cored in Decimal Feet:	1.5	1.5
Recovered Core Length in Decimal Feet:	0.95	1.15
% Recovery (Recovered Core/Depth Cored):	63%	77%

Test Pit Log

Test Pit Logger: BPW
Digging Method: Slidehammer
Test Pit Dimensions: 6" x 6" x 18"
Woody Debris (Y/N): Yes
Vegetation Type: 25% carex.sp. 75% p grass
Approx. # Stems/ft^2: 1440

Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0.0-0.75'	10YR3/2 dark grey brown. Sandy silt. 80% silt. Very Fine roots 80% homogeneous root mat to wood (log). Plasticity. Low to medium. Saturate.
	Water table 0.55 bgs
Notes:	Wood at 0.6' bgs up to 0.2' in length

No Photo Taken

Sample Collection

Sample Collection Team: BW, JP
Sample Collection Date: 7/18/2017 and 7/19/2017

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
0.0 - 0.1	W-17-NE _ 071817 _SED_00-01	11:55	MeHg, Hg, TOC, OC	None	1 x 16 oz Plastic	Lab Homogenize and Subsample
0.1 - 0.3	W-17-NE _ 071817 _SED_01-03	11:57	MeHg, Hg, TOC, OC	None	2 x 16 oz Plastic	
0.3 - 0.5	W-17-NE _ 071917 _SED_03-05	9:42	Hg, TOC, OC	None	1 x 8 oz Plastic 2 x 8 oz Amber Glass	Field Lab Homogenize and Subsample
0.5 - 1.0	W-17-NE _ 071917 _SED_05-10	9:45	Hg, TOC, OC	None	1 x 8 oz Plastic 2 x 8 oz Amber Glass	

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
0.0 = Scalp
Samples were processed/sectioned in the Winterport field office
Geographic coordinates provided on Core/Grab Log.

Technician Name: Julie Pallozzi
QA/QC by: Lauren Tierney

Technician Signature: J Pallozzi
QA/QC Date: 10/6/2017

Penobscot River Mercury Study - Phase III Engineering Evaluation

WETLAND SEDIMENT SAMPLE COLLECTION

Project Name: USDC Penobscot River
Project Number: 3616166052
Location ID: W-17-NW
WO: 4A-050 Biota Co-Located

Core Collection

Core Collection Team: KCB, BPW
Core Collection Date: 07/11/2017
Core Collection Time: 15:01
Instant Freeze (Y/N): Yes
Collection Method: Slide Hammer
Liner Type: 3" D x 24" L Plastic
Est. Volume: 47 oz/ft

	Core Recovery	
Sleeve Length in Decimal Feet:	2.0	2.0
Depth Cored in Decimal Feet:	1.5	1.5
Recovered Core Length in Decimal Feet:	0.7	1.35
% Recovery (Recovered Core/Depth Cored):	47%	90%

Test Pit Log

Test Pit Logger: BPW
Digging Method: Core
Test Pit Dimensions: Core
Woody Debris (Y/N): Yes
Vegetation Type: Typha, carex sp.
Approx. # Stems/ft²: 1440

Interval	Description color, grain size, odor, debris, roots, organisms, etc.
0.0-0.1	Black 10YR2/1. Silt with sand. Fine roots and leaves
0.1-0.35	10YR3/3 brown. Sandy silt. 20% fine sand. Low plasticidy. Fine roots
0.35-0.8	Wood chip at 0.6 (0.1') 10YR4/2 dark grey brown. Low to medium placsticidy. Silt with sand. 85% silt.
	Depth of water 0.3 bgs

No Photo Taken

Sample Collection

Sample Collection Team: BW, JP
Sample Collection Date: 7/17/2017 and 7/18/2017

Sample Interval (ft.)	Sample ID	Sample Time	Requested Analyses	Additional Volumes Collected	Container	Homoginization
0.0 - 0.1	W-17-NW _ 071717 _SED_00-01	17:45	MeHg, Hg, TOC, OC	None	1 x 16 oz Plastic	Lab Homogenize and Subsample
0.1 - 0.3	W-17-NW _ 071717 _SED_01-03	17:49	MeHg, Hg, TOC, OC	None	2 x 16 oz Plastic	
0.3 - 0.5	W-17-NW _ 071817 _SED_03-05	10:12	Hg, TOC, OC	None	1 x 8 oz Plastic 2 x 8 oz Amber Glass	Field Lab Homogenize and Subsample
0.5 - 1.0	W-17-NW _ 071817 _SED_05-10	10:20	Hg, TOC, OC	None	1 x 8 oz Plastic 2 x 8 oz Amber Glass	

Sample Analysis Information

Analyte	Method	Preservative	Lab
Methyl Mercury (MeHg)	1630	Freeze	EFGS
Mercury (Hg)	1631	4 C	EFGS
Total Organic Carbon (TOC)	Lloyd-Kahn	4 C	Alpha
Organic Content (OC)	D2974 Mod(550 C)	Ambient	Amec FW

Notes:
Sediment Core sampling was conducted according to the following SOPs included in the QAPP:
SOP-S-6a Sediment Sampling, SOP-S-7 Soil Descriptions, SOP-S-17 Decon
0.0 = Scalp
Samples were processed/sectioned in the Winterport field office
Geographic coordinates provided on Core/Grab Log.

Technician Name: Julie Pallozzi
QA/QC by: Lauren Tierney

Technician Signature: J Pallozzi
QA/QC Date: 10/6/2017

Spider-Insect Field Data Records

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SAMPLE COLLECTION LOG
COMPOSITE: WHOLE BODY SPIDERS

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	062317	**Location ID:**	ADD-01
Collectors:	LSV, KCB	**Collection Method (Equip):**	Other: Hand collect

Sample ID	Time	Number of Individuals per Composite	Weight of Composite (grams)	Photo (Y/N)	Notes
ADD-01 _ 17HC001 _ 062317 _SPI_ 01 _WB	10:00	20 - 40	1.1	Yes	Primarily wolf spiders

Requested Analyses

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total MeHg	1631e/1630	2 oz polyethylene jar	1	4°C
Total Lipids	NOAA 1993a			

Additional Questions:

Preservative at collection: Wet Ice

QC Collected: MS/MSD MS/MSD Source: 01

Notes:

Spider and terrestrial insect sampling was conducted according to the following SOP included in the QAPP;
SOP S-11 Spider and Insect Sampling

Technician name (Print): Louise Venne QA/QC by:

Technician Signature: Louise Venne Date:

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SAMPLE COLLECTION LOG
COMPOSITE: WHOLE BODY SPIDERS

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	062717	**Location ID:**	ADD-01
Collectors:	MCB	**Collection Method (Equip):**	Other: Hand collected

Sample ID	Time	Number of Individuals per Composite	Weight of Composite (grams)	Photo (Y/N)	Notes
ADD-01 _ 17HC001 _ 062717 _SPI_ 02 _WB	10:30	10 - 20	0.9	Yes	Wolf spiders
ADD-01 _ 17HC001 _ 062717 _SPI_ 03 _WB	10:45	10 - 20	1.3	Yes	Wolf spiders
ADD-01 _ 17HC002 _ 062717 _SPI_ 04 _WB	11:00	10 - 20	1.2	Yes	Wolf spiders
ADD-01 _ 17HC001 _ 062717 _SPI_ 05 _WB	11:30	10 - 20	0.7	Yes	Wolf spiders

Requested Analyses

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total MeHg	1631e/1630	2 oz polyethylene jar	1	4°C
Total Lipids	NOAA 1993a			

Additional Questions:

Preservative at collection: Wet Ice

QC Collected: MS/MSD MS/MSD Source: 01/03

Notes:

Spider and terrestrial insect sampling was conducted according to the following SOP included in the QAPP;
SOP S-11 Spider and Insect Sampling

Technician name (Print): Louise Venne QA/QC by:

Technician Signature: Louise Venne Date:

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SAMPLE COLLECTION LOG
COMPOSITE: WHOLE BODY SPIDERS

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	062117	**Location ID:**	MMSE-1
Collectors:	JPP, LMT	**Collection Method (Equip):**	Tweezers, Butterfly Net, Pitfall Trap, Aspirator

Sample ID	Time	Number of Individuals per Composite	Weight of Composite (grams)	Photo (Y/N)	Notes
MMSE-1 _ 17PT003 _ 062117 _SPI_ 01 _WB	16:30	60 - 80	2.1	Yes	NA

Requested Analyses

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total MeHg	1631e/1630	2 oz polyethylene jar	1	4°C
Total Lipids	NOAA 1993a			

Additional Questions:

Preservative at collection: Dry Ice

QC Collected: None MS/MSD Source: NA

Notes:

Spider and terrestrial insect sampling was conducted according to the following SOP included in the QAPP;
SOP S-11 Spider and Insect Sampling

Technician name (Print): Julie Pallozzi QA/QC by: _____

Technician Signature: _____ Date: _____

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SAMPLE COLLECTION LOG
COMPOSITE: WHOLE BODY SPIDERS

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	062117	**Location ID:**	MMSE-1
Collectors:	JPP LT	**Collection Method (Equip):**	Pitfall Trap

Sample ID	Time	Number of Individuals per Composite	Weight of Composite (grams)	Photo (Y/N)	Notes
MMSE-1 _ 17PT002 _ 062117 _SPI_ 02 _WB	10:00	1 - 10	1.3	Yes	Wolf spider

Requested Analyses

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total MeHg	1631e/1630	2 oz polyethylene jar	1	4°C
Total Lipids	NOAA 1993a			

Additional Questions:

Preservative at collection: Wet Ice

QC Collected: None MS/MSD Source: NA

Notes:

Spider and terrestrial insect sampling was conducted according to the following SOP included in the QAPP;
SOP S-11 Spider and Insect Sampling

Technician name (Print): Louise Venne QA/QC by: _____

Technician Signature: Louise Venne Date: _____

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SAMPLE COLLECTION LOG
COMPOSITE: WHOLE BODY SPIDERS

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	071917	**Location ID:**	MMSE-1
Collectors:	LT BW KB	**Collection Method (Equip):**	Other: Hand collected

Sample ID	Time	Number of Individuals per Composite	Weight of Composite (grams)	Photo (Y/N)	Notes
MMSE-1 _ 17HC005 _ 071917 _SPI_ 03 _WB	16:00	1 - 10	0.8	Yes	Wolf Spiders
MMSE-1 _ 17HC005 _ 071917 _SPI_ 04 _WB	16:05	20 - 30	1.1	Yes	Misc
MMSE-1 _ 17HC005 _ 071917 _SPI_ 05 _WB	16:10	10-Jan	0.8	Yes	Wolf Spiders

Requested Analyses

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total MeHg	1631e/1630	2 oz polyethylene jar	1	4°C
Total Lipids	NOAA 1993a			

Additional Questions:

Preservative at collection: Dry Ice

QC Collected: None MS/MSD Source: NA

Notes:

Spider and terrestrial insect sampling was conducted according to the following SOP included in the QAPP;
SOP S-11 Spider and Insect Sampling

Technician name (Print): Lauren Tierney QA/QC by:

Technician Signature: Date:

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SAMPLE COLLECTION LOG
COMPOSITE: WHOLE BODY SPIDERS

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	062317	**Location ID:**	MMSW-C
Collectors:	JPP LT	**Collection Method (Equip):**	Pitfall Trap, Other: Hand collected

Sample ID	Time	Number of Individuals per Composite	Weight of Composite (grams)	Photo (Y/N)	Notes
MMSW-C _ 17PT002 _ 062317 _SPI_ 02 _WB	10:30	20 - 40	0.6	Yes	orbweaver spiders
MMSW-C _ 17PT002 _ 062317 _SPI_ 01 _WB	10:00	10 - 20	0.7	Yes	Wolf spiders
MMSW-C _ 17PT001 _ 062317 _SPI_ 04 _WB	14:00	20 - 40	0.5	Yes	Orbweavers
MMSW-C _ 17PT003 _ 062317 _SPI_ 03 _WB	12:00	10 - 20	1.0	Yes	Wolf spiders, crab spider
MMSW-C _ 17PT004 _ 062317 _SPI_ 05 _WB	15:00	> 100	1.2	Yes	Mix

Requested Analyses

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total MeHg	1631e/1630	2 oz polyethylene jar	1	4°C
Total Lipids	NOAA 1993a			

Additional Questions:

Preservative at collection: Dry Ice
QC Collected: None MS/MSD Source: NA

Notes:

Spider and terrestrial insect sampling was conducted according to the following SOP included in the QAPP;
SOP S-11 Spider and Insect Sampling

Technician name (Print): Louise Venne QA/QC by: _____

Technician Signature: Louise Venne Date: _____

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SAMPLE COLLECTION LOG
COMPOSITE: WHOLE BODY SPIDERS

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	062417	**Location ID:**	W17-N
Collectors:	LMT, JPP	**Collection Method (Equip):**	Tweezers, Other: Aspirator vials

Sample ID	Time	Number of Individuals per Composite	Weight of Composite (grams)	Photo (Y/N)	Notes
W17-N _ 17PT003 _ 062417 _SPI_ 01 _WB	15:23	20 - 40	2.2	Yes	None
W17-N _ 17PT003 _ 062417 _SPI_ 02 _WB	15:26	20 - 40	2.1	Yes	None

Requested Analyses

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total MeHg	1631e/1630	2 oz polyethylene jar	1	4°C
Total Lipids	NOAA 1993a			

Additional Questions:

Preservative at collection: Dry Ice

QC Collected: None MS/MSD Source: NA

Notes:

Spider and terrestrial insect sampling was conducted according to the following SOP included in the QAPP;
SOP S-11 Spider and Insect Sampling

Technician name (Print): Julie Pallozzi QA/QC by: _____

Technician Signature: J Pallozzi Date: _____

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SAMPLE COLLECTION LOG
COMPOSITE: WHOLE BODY SPIDERS

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	062517	**Location ID:**	W17-N
Collectors:	JPP LT	**Collection Method (Equip):**	Pitfall Trap, Other: Hand collected

Sample ID	Time	Number of Individuals per Composite	Weight of Composite (grams)	Photo (Y/N)	Notes
W17-N _ 17PT002 _ 062517 _SPI_ 03 _WB	10:00	10 - 20	1.1	Yes	Wolf spiders
W17-N _ 17PT004 _ 062517 _SPI_ 04 _WB	10:30	10 - 20	1.3	Yes	Wolf spiders
W17-N _ 17PT001 _ 062517 _SPI_ 05 _WB	11:00	1 - 10	0.7	Yes	Wolf spider

Requested Analyses

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total MeHg	1631e/1630	2 oz polyethylene jar	1	4°C
Total Lipids	NOAA 1993a			

Additional Questions:

Preservative at collection: Dry Ice

QC Collected: None MS/MSD Source: NA

Notes:

Spider and terrestrial insect sampling was conducted according to the following SOP included in the QAPP;
SOP S-11 Spider and Insect Sampling

Technician name (Print): Louise Venne QA/QC by:

Technician Signature: Louise Venne Date:

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SAMPLE COLLECTION LOG
COMPOSITE: WHOLE BODY TERRESTRIAL INSECTS

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	062317	**Location ID:**	ADD-01
Collectors:	LMT, JPP	**Collection Method (Equip):**	Tweezers, Sweep Net, Aspirator

Sample ID	Time	Number of Individuals per Composite	Weight of Composite (grams)	Species	Photo (Y/N)	Notes
ADD-01 _ 17BN001 _ 062317 _TIN_ 01 _WB	16:20	> 100	1.3	Terrestrial Insect	Yes	Stink bugs
ADD-01 _ 17BN002 _ 062317 _TIN_ 02 _WB	16:25	> 100	2.0	Terrestrial Insect	Yes	Misc flies
ADD-01 _ 17BN003 _ 062317 _TIN_ 03 _WB	16:30	10 - 20	2.2	Terrestrial Insect	Yes	Dragon flies
ADD-01 _ 17BN004 _ 062317 _TIN_ 04 _WB	16:35	10 - 20	2.4	Terrestrial Insect	Yes	Dragon flies

Requested Analyses

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total MeHg	1631e/1630	2 oz polyethylene jar	1	4°C
Total Lipids	NOAA 1993a			

Additional Questions:

Preservative at collection: Dry Ice
QC Collected: None MS/MSD Source: NA

Notes:

Spider and terrestrial insect sampling was conducted according to the following SOP included in the QAPP;
SOP S-11 Spider and Insect Sampling

Technician name (Print): Julie Pallozzi QA/QC by: _____

Technician Signature: _____ Date: _____

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SAMPLE COLLECTION LOG
COMPOSITE: WHOLE BODY TERRESTRIAL INSECTS

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	062317	**Location ID:**	ADD-01
Collectors:	LSV, KCB	**Collection Method (Equip):**	Other: Hand collected

Sample ID	Time	Number of Individuals per Composite	Weight of Composite (grams)	Species	Photo (Y/N)	Notes
ADD-01 _ 17HC002 _ 062317 _TIN_ 05 _WB	11:20	60 - 80	1.4	Terrestrial Insect	Yes	Donacia sp. (beetle, copper colored back)

Requested Analyses

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total MeHg	1631e/1630	2 oz polyethylene jar	1	4°C
Total Lipids	NOAA 1993a			

Additional Questions:

Preservative at collection: Dry Ice
QC Collected: MS/MSD MS/MSD Source: 05

Notes:

Spider and terrestrial insect sampling was conducted according to the following SOP included in the QAPP;
SOP S-11 Spider and Insect Sampling

Technician name (Print): K Bavor QA/QC by: _____

Technician Signature: _____ Date: _____

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SAMPLE COLLECTION LOG
COMPOSITE: WHOLE BODY TERRESTRIAL INSECTS

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	062117	**Location ID:**	MMSE-1
Collectors:	JPP, LMT	**Collection Method (Equip):**	Tweezers, Sweep Net, Aspirator

Sample ID	Time	Number of Individuals per Composite	Weight of Composite (grams)	Species	Photo (Y/N)	Notes
MMSE-1 _ 17BN001 _ 062117 _TIN_ 01 _WB	16:35	> 100	2.4	Picture-winged Fly	Yes	A few other small black bodied flies are in sample

Requested Analyses

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total MeHg	1631e/1630	2 oz polyethylene jar	1	4°C
Total Lipids	NOAA 1993a			

Additional Questions:

Preservative at collection: Dry Ice

QC Collected: None MS/MSD Source: NA

Notes:

Spider and terrestrial insect sampling was conducted according to the following SOP included in the QAPP;
SOP S-11 Spider and Insect Sampling

Technician name (Print): Julie Pallozzi QA/QC by: _____

Technician Signature: J Pallozzi Date: _____

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SAMPLE COLLECTION LOG
COMPOSITE: WHOLE BODY TERRESTRIAL INSECTS

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	062117	**Location ID:**	MMSE-1
Collectors:	LT/JP	**Collection Method (Equip):**	Other: Butterfly net

Sample ID	Time	Number of Individuals per Composite	Weight of Composite (grams)	Species	Photo (Y/N)	Notes
MMSE-1 _ 17BT001 _ 062117 _TIN_ 03 _WB	11:06	20 - 40	1.2	Grasshopper	Yes	NA
MMSE-1 _ 17BT003 _ 062117 _TIN_ 05 _WB	13:13	20 - 40	1.1	Terrestrial Insect	Yes	Inch worms, damselfly, beetle, small fly
MMSE-1 _ 17BN001 _ 062117 _TIN_ 02 _WB	13:30	1 - 10	0.8	Terrestrial Insect	Yes	Stink bugs
MMSE-1 _ 17BN001 _ 062117 _TIN_ 04 _WB	14:00	1 - 10	0.7	Terrestrial Insect	Yes	Stink bugs

Requested Analyses

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total MeHg	1631e/1630	2 oz polyethylene jar	1	4°C
Total Lipids	NOAA 1993a			

Additional Questions:

Preservative at collection: Wet Ice

QC Collected: None MS/MSD Source: NA

Notes:

Spider and terrestrial insect sampling was conducted according to the following SOP included in the QAPP;
SOP S-11 Spider and Insect Sampling

Technician name (Print): Louise Venne QA/QC by:

Technician Signature: Louise Venne Date:

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SAMPLE COLLECTION LOG
COMPOSITE: WHOLE BODY TERRESTRIAL INSECTS

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	062317	**Location ID:**	MMSW-C
Collectors:	LMT, JPP	**Collection Method (Equip):**	Tweezers, Sweep Net, Aspirator

Sample ID	Time	Number of Individuals per Composite	Weight of Composite (grams)	Species	Photo (Y/N)	Notes
MMSW-C _ 17BN003 _ 062317 _TIN_ 01 _WB	16:40	20 - 40	2.4	Terrestrial Insect	Yes	Stink bugs/true bugs
MMSW-C _ 17BN002 _ 062317 _TIN_ 02 _WB	16:46	> 100	2.3	Grasshopper	Yes	None
MMSW-C _ 17BN002 _ 062317 _TIN_ 03 _WB	16:52	> 100	2.2	Grasshopper	Yes	None
MMSW-C _ 17BN001 _ 062317 _TIN_ 04 _WB	16:55	60 - 80	1.9	Terrestrial Insect	Yes	Beetle-type bugs
MMSW-C _ 17BN004 _ 062317 _TIN_ 05 _WB	16:59	> 100	6.0	Terrestrial Insect	Yes	Miscellaneous sample and

Requested Analyses

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total MeHg	1631e/1630	2 oz polyethylene jar	1	4°C
Total Lipids	NOAA 1993a			

Additional Questions:

Preservative at collection: Dry Ice

QC Collected: MS/MSD MS/MSD Source: 05

Notes:

Spider and terrestrial insect sampling was conducted according to the following SOP included in the QAPP;
SOP S-11 Spider and Insect Sampling

Technician name (Print): Julie Pallozzi QA/QC by: _____

Technician Signature: J Pallozzi Date: _____

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SAMPLE COLLECTION LOG
COMPOSITE: WHOLE BODY TERRESTRIAL INSECTS

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	062417	**Location ID:**	W17-N
Collectors:	LMT, JPP	**Collection Method (Equip):**	Tweezers, Sweep Net, Aspirator

Sample ID	Time	Number of Individuals per Composite	Weight of Composite (grams)	Species	Photo (Y/N)	Notes
W17-N _ 17BN005 _ 062417 _TIN_ 01 _WB	15:13	20 - 40	2.1	Grasshopper	Yes	None
W17-N _ 17BN004 _ 062417 _TIN_ 02 _WB	15:15	> 100	2.0	Terrestrial Insect	Yes	Misc sample

Requested Analyses

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total MeHg	1631e/1630	2 oz polyethylene jar	1	4°C
Total Lipids	NOAA 1993a			

Additional Questions:

Preservative at collection: Dry Ice
QC Collected: None MS/MSD Source: NA

Notes:

Spider and terrestrial insect sampling was conducted according to the following SOP included in the QAPP;
SOP S-11 Spider and Insect Sampling

Technician name (Print): Julie Pallozzi QA/QC by: _____

Technician Signature: JPallozzi Date: _____

amec foster wheeler

SAMPLE COLLECTION LOG
COMPOSITE: WHOLE BODY TERRESTRIAL INSECTS

Project Name:	USDC Penobscot River	**Project Number:**	3616166052
Date:	062517	**Location ID:**	W17-N
Collectors:	LSV, KCB	**Collection Method (Equip):**	Other: Mist net

Sample ID	Time	Number of Individuals per Composite	Weight of Composite (grams)	Species	Photo (Y/N)	Notes
W17-N _ 17MN001 _ 062517 _TIN_ 05 _WB	11:00	1 - 10	2.0	Terrestrial Insect	Yes	Anax junius, possible zebra clubtail, Plathemis lydia (dragonflies)
W17-N _ 17BN001 _ 062517 _TIN_ 04 _WB	09:00	1 - 10	1.0	Terrestrial Insect	Yes	Stinkbugs
W17-N _ 17BN001 _ 062517 _TIN_ 03 _WB	09:30	20 - 40	1.4	Grasshopper	Yes	NA

Requested Analyses

Analytes:	Methods:	Container:	# Containers	Preservative
Total Hg/Total MeHg	1631e/1630	2 oz polyethylene jar	1	4°C
Total Lipids	NOAA 1993a			

Additional Questions:

Preservative at collection: Dry Ice

QC Collected: None MS/MSD Source: NA

Notes:

Spider and terrestrial insect sampling was conducted according to the following SOP included in the QAPP;
SOP S-11 Spider and Insect Sampling

Technician name (Print): Louise Venne QA/QC by: _____

Technician Signature: Louise Venne Date: _____

Duck Field Data Records

Environmental Analysis Request/Chain of Custody

eurofins | Frontier Global Sciences

Client: **Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101**

Project Name/#: USDC Penobscot | PN #:3616166052.04A.054

Project Manager: Rod Pendleton | P.O. #:C012505850

Sampler: LSV/ KCB | PWSID #:

Phone #: | Quote #:

State where samples were collected: ____ ME | For Compliance: Yes ☐ No ☑

For Lab Use Only

SF #: _____

SCR #: _____

Sample Identification		Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Sediment	Tissue	Water: Potable	Ground	Surface	NPDES	Other: Blood	Total # of Containers	Analyses Requested / Preservation Codes: Hg 1631e/ Lipid 1991a Zipbag Freeze	Hg 1631e cap tubes (70µL)/ Frozen								Remarks	
1	ES-13_18WT001_012918_ABD_01_BL	1/29/2018	1133	X									X	1		×								3	cap tubes (2 full)
2	ES-13_18WT001_012918_ABD_02_BL	1/29/2018	1135	X									X	1		×								4	cap tubes
3	ES-13_18WT001_012918_ABD_03_BL	1/29/2018	1158	X									X	1		×								5	cap tubes **Extra volume for MS/MD**
4	ES-13_18WT001_012918_ABD_04_BL	1/29/2018	1215	X									X	1		×								3.5	cap tubes
5	ES-13_18WT001_012918_ABD_05_BL	1/29/2018	1225	X									X	1		×								3	cap tubes
6	ES-13_18WT001_012918_ABD_06_BL	1/29/2018	1240	X									X	1		×								3	cap tubes
7	ES-13_18WT001_012918_ABD_07_BL	1/29/2018	1251	X									X	1		×								5	cap tubes
8	ES-13_18WT001_013018_ABD_08_BL	1/30/2018	1720	X									X	1		×								4	cap tubes
9	ES-13_18WT001_013018_ABD_09_BL	1/30/2018	1730	X									X	1		×								3	cap tubes
10	ES-13_18WT001_013018_ABD_10_BL	1/30/2018	1735	X									X	1		×								3	cap tubes
11	ES-13_18WT001_013018_ABD_11_BL	1/30/2018	1745	X									X	1		×								5	cap tubes
12	ES-13_18WT001_013018_ABD_12_BL	1/30/2018	1755	X									X	1		×								3.5	cap tubes
13	ES_13_18WT001_013118_ABD_13_BL	1/31/2018	1335	X									X	1		×								3	cap tubes
14	ES-13_18WT001_013118_ABD_14_BL	1/31/2018	1341	X									X	1		×								3.5	cap tubes
15	ES-13_18WT001_013118_ABD_15_BL	1/31/2018	1355	X									X	1		×								4	cap tubes
16																									
17																									
18																									
19																									
20																									

Preservation Codes

H = HCl T = Thiosulfate

N = HNO_3 B = NaOH

S = H_2SO_4 P = H_3PO_4

O = Other

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐

(Rush TAT is subject to laboratory approval and surcharges.)

Relinquished by:	Date	Time	Received by:	Date	Time
Kendra Bavor	21/2018	1630			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time

Notes: MS/MD volume noted in Remarks.

FedEx # ____810426642018

# of Coolers _____1_____

Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report

Report and EDD to: denise.king@amecfw.com / 978-692-6633

Data Package Options (please check if required)

High ☐ Standard ☑

EDD Required? Yes ☑ No ☐ If yes, format: _____

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt _____ °C

Environmental Analysis Request/Chain of Custody

eurofins | Frontier Global Sciences

Client: **Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101**

Project Name/#: USDC Penobscot | PN #:3616166052.04A.054

Project Manager: Rod Pendleton | P.O. #:C012505850

Sampler: LSV/ KCB | PWSID #:

Phone #: | Quote #:

State where samples were collected: ___ ME | For Compliance: Yes ☐ No ☑

For Lab Use Only

SF #: _____

SCR #: _____

Preservation Codes

H = HCl T = Thiosulfate

N = HNO_3 B = NaOH

S = H_2SO_4 P = H_3PO_4

O = Other

	Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Sediment	Tissue	Water: Potable	Ground	Surface	NPDES	Other: Blood	Other: Corn	Total # of Containers	Analyses Requested / Preservation Codes: Hg 1631e/ Lipid 1991a Zipbag Freeze	Hg 1631e cap tubes (70µL)/ Frozen	Hg 1631e zip bag/ Frozen							Remarks	
1	FRB-01_18WT001_013018_ABD_01_BL	1/30/2018	13:31	X									X		1		×								4.0	Cap tubes
2	FRB-01_18WT001_013018_ABD_02_BL	1/30/2018	13:47	X									X		1		×								3.0	Cap tubes
3	FRB-01_18WT001_013018_ABD_03_BL	1/30/2018	13:58	X									X		1		×								5.0	Cap tubes
4	FRB-01_18WT001_013018_ABD_04_BL	1/30/2018	14:16	X									X		1		×								4.0	Cap tubes
5	FRB-01_18WT001_013018_ABD_05_BL	1/30/2018	14:28	X									X		1		×								4.0	Cap tubes
6	FRB-OCN_18WT001_013018_ABD_06_BL	1/30/2018	14:45	X									X		1		×								5	Cap tubes; Use volume for MS/MSD
7	FRB-OCN_18WT001_013018_ABD_07_BL	1/30/2018	14:55	X									X		1		×								4	Cap tubes
8	FRB-OCN_18WT001_013018_ABD_08_BL	1/30/2018	15:05	X									X		1		×								5	Cap tubes
9	FRB-OCN_18WT001_013018_ABD_09_BL	1/30/2018	15:20	X									X		1		×								4	Cap tubes
10	FRB-OCN_18WT001_013018_ABD_10_BL	1/30/2018	15:25	X									X		1		×								3.5	Cap tubes broken tubes
11	FRB-OCN_18WT001_013018_ABD_11_BL	1/30/2018	15:35	X									X		1		×								3.5	Cap tubes
12	FRB-OCN_18WT001_013018_ABD_12_BL	1/30/2018	15:45	X									X		1		×								2.5	Cap tubes
13	FRB-01_18WT001_013118_ABD_13_BL	1/31/2018	15:30	X									X		1		×								3	Cap tubes
14	FRB-01_18WT001_013118_ABD_14_BL	1/31/2018	15:40	X									X		1		×								3	Cap tubes
15	FRB-01_18WT001_013118_ABD_15_BL	1/31/2018	15:45	X									X		1		×								3	Cap tubes
16	FRB-01_013118_BAIT_01_QC	1/31/2018	1800	X										X	1		x									bait corn
17																										
18																										
19																										
20																										

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐

(Rush TAT is subject to laboratory approval and surcharges.)

Relinquished by:	Date	Time	Received by:	Date	Time
Kendra Bavor	21/2018	1630			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt _____ °C

Notes: MS/MD volume noted in Remarks.

FedEx # ____810426642018

# of Coolers _____1_____

Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report

Report and EDD to: denise.king@amecfw.com / 978-692-6633

Data Package Options (please check if required)

High ☐ Standard ☑

EDD Required? Yes ☑ No ☐ If yes, format: _____

Environmental Analysis Request/Chain of Custody

eurofins | Frontier Global Sciences

Client: **Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101**

Project Name/#: USDC Penobscot | PN #:3616166052.04A.054

Project Manager: Rod Pendleton | P.O. #:C012505850

Sampler: LSV/ KCB | PWSID #:

Phone #: | Quote #:

State where samples were collected: ___ ME | For Compliance: Yes ☐ No ☑

For Lab Use Only

SF #: _____

SCR #: _____

Preservation Codes

H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

	Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil ☐	Sediment ☐	Tissue ☐	Water: Potable ☐	Ground ☐	Surface ☐	NPDES ☐	Other: Blood	Total # of Containers	Analyses Requested / Preservation Codes: Hg 1631e/ Lipid 1991a Zipbag Freeze	Hg 1631e cap tubes (70µL)/ Frozen								Remarks
1	MMBKD-01_18WT001_012918_ABD_01_BL	1/29/2018	1530	X									X	1		×								5 Cap Tubes. Use volume for MS/MSD
2	MMBKD-01_18WT001_013018_ABD_02_BL	1/30/2018	18:15	X									X	1		×								4 Cap tubes
3	MMBKD-01_18WT001_013018_ABD_03_BL	1/30/2018	18:30	X									X	1		×								4 Cap tubes
4	MMBKD-01_18WT001_013018_ABD_04_BL	1/30/2018	18:40	X									X	1		×								4 Cap tubes
5	MMBKD-01_18WT001_013018_ABD_05_BL	1/30/2018	18:48	X									X	1		×								3 Cap tubes
6	MMBKD-01_18WT001_013018_ABD_06_BL	1/30/2018	18:55	X									X	1		×								4 Cap tubes
7	MMBKD-01_18WT001_013018_ABD_07_BL	1/30/2018	19:00	X									X	1		×								2.5 Cap tubes
8	MMBKD-01_18WT001_013018_ABD_08_BL	1/30/2018	19:10	X									X	1		×								3 Cap tubes
9	MMBKD-01_18WT001_013018_ABD_09_BL	1/30/2018	19:15	X									X	1		×								5 Cap tubes
10	MMBKD-01_18WT001_013018_ABD_10_BL	1/30/2018	19:25	X									X	1		×								4 Cap tubes
11	MMBKD-01_18WT001_013018_ABD_11_BL	1/30/2018	19:30	X									X	1		×								3 Cap tubes
12	MMBKD-01_18WT001_013018_ABD_12_BL	1/30/2018	19:35	X									X	1		×								3.3 Cap tubes
13	MMBKD-01_18WT001_013018_ABD_13_BL	1/30/2018	19:45	X									X	1		×								3.5 Cap tubes
14	MMBKD-01_18WT001_013018_ABD_14_BL	1/30/2018	19:55	X									X	1		×								4 Cap tubes
15	MMBKD-01_18WT001_013018_ABD_15_BL	1/30/2018	20:05	X									X	1		×								4 Cap tubes
16																								
17																								
18																								
19																								
20																								

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐

(Rush TAT is subject to laboratory approval and surcharges.)

Relinquished by:	Date	Time	Received by:	Date	Time
Kendra Bavor	21/2018	1630			

Notes: MS/MD volume noted in Remarks.

FedEx # ____810426642018
# of Coolers _____1_____
Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report
Report and EDD to: denise.king@amecfw.com / 978-692-6633

Data Package Options (please check if required)

High ☐ Standard ☑

EDD Required? Yes ☑ No ☐ If yes, format: _____

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt _____ °C

amec foster wheeler

SAMPLE COLLECTION LOG
AMERICAN BLACK DUCK BLOOD

Project Name: USDC Penobscot River
Project Number: 3616166052.04A.4A052
Date: 01/29/2018
Location ID: ES-13
Collectors: LSV, KCB
Collection Method (Equip): Wire Trap

Sample ID	Time	Band Number	Weight (grams)	Sex	Age	Capillary Tubes	Notes
ES-13 _ 18WT001 _ 012918 _ABD_ 01 _BL	11:13	213725817	1410.0	M	2	3.0	2full tubes
ES-13 _ 18WT001 _ 012918 _ABD_ 02 _BL	11:35	213725818	1500.0	M	2	4.0	3.25 tubes full
ES-13 _ 18WT001 _ 012918 _ABD_ 03 _BL	11:58	213725816	1490.0	M	2	5.0	MS/MSD
ES-13 _ 18WT001 _ 012918 _ABD_ 04 _BL	12:15	213725815	1410.0	M	2	3.5	
ES-13 _ 18WT001 _ 012918 _ABD_ 05 _BL	12:25	213725819	1170.0	F	2	3.0	
ES-13 _ 18WT001 _ 012918 _ABD_ 06 _BL	12:40	213725820	1480.0	M	2	3.0	
ES-13 _ 18WT001 _ 012918 _ABD_ 07 _BL	12:51	213725821	1360.0	M	3	5.0	Green head feathers one tube broke

Requested Analyses

Analytes:	Methods:	Container:	Preservative
Total Mercury	1631e	70 uL Capillary Tube	Frozen

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: Yes
MS/MSD Source: 03

Notes:

Duck sampling was conducted according to the following SOPs included in the QAPP: SOP S-10 American Black Duck Sampling

Technician name (Print): Kendra Bavor
QA/QC by:

Technician Signature:
Date:

amec foster wheeler

SAMPLE COLLECTION LOG
AMERICAN BLACK DUCK BLOOD

Project Name: USDC Penobscot River
Project Number: 3616166052.04A.4A052
Date: 01/31/2018
Location ID: ES-13
Collectors: LSV, KCB
Collection Method (Equip): Wire Trap

Sample ID	Time	Band Number	Weight (grams)	Sex	Age	Capillary Tubes	Notes
ES-13 _ 18WT001 _ 013118 _ABD_ 13 _BL	13:35	204731312	1510.0	M	3	3.0	
ES-13 _ 18WT001 _ 013118 _ABD_ 14 _BL	13:41	213725866	1520.0	M	2	3.5	2 broken tubes
ES-13 _ 18WT001 _ 013118 _ABD_ 15 _BL	13:55	213725868	1660.0	M	3	4.0	

Requested Analyses

Analytes:	Methods:	Container:	Preservative
Total Mercury	1631e	70 uL Capillary Tube	Frozen

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: No
MS/MSD Source: NA

Notes:

Duck sampling was conducted according to the following SOPs included in the QAPP: SOP S-10 American Black Duck Sampling

Technician name (Print): Kendra Bavor
QA/QC by:

Technician Signature:
Date:

amec foster wheeler

SAMPLE COLLECTION LOG
AMERICAN BLACK DUCK BLOOD

Project Name: USDC Penobscot River
Project Number: 3616166052.04A.4A052
Date: 01/30/2018
Location ID: ES-13
Collectors: LSV, KCB
Collection Method (Equip): Wire Trap

Sample ID	Time	Band Number	Weight (grams)	Sex	Age	Capillary Tubes	Notes
ES-13 _ 18SY _ 013018 _ABD_ 08 _BL	17:20			M	2	4.0	SY
ES-13 _ 18 _ 013018 _ABD_ 09 _BL	17:30			M	2	3.0	
ES-13 _ 18 _ 013018 _ABD_ 10 _BL	17:35			M	2	3.0	
ES-13 _ 18 _ 013018 _ABD_ 11 _BL	17:45			M	2	5.0	
ES-13 _ 18 _ 013018 _ABD_ 12 _BL	17:55			M	3	3.5	ASY

Requested Analyses

Analytes:	Methods:	Container:	Preservative
Total Mercury	1631e	70 uL Capillary Tube	Frozen

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: No
MS/MSD Source: NA

Notes:

Duck sampling was conducted according to the following SOPs included in the QAPP: SOP S-10 American Black Duck Sampling

Original Data sheet was over written. Correlation of band and weights was lost. Bands are 213725831 through 213725835. This data sheet provides data based upon banding notes and chain of custody.

Technician name (Print): K.Bavor
QA/QC by:

Technician Signature:
Date:

amec foster wheeler

SAMPLE COLLECTION LOG
AMERICAN BLACK DUCK BLOOD

Project Name: USDC Penobscot River
Project Number: 3616166052.04A.4A052
Date: 01/30/2018
Location ID: FRB-01
Collectors: LSV, KCB
Collection Method (Equip): Wire Trap

Sample ID	Time	Band Number	Weight (grams)	Sex	Age	Capillary Tubes	Notes
FRB-01 _ 18WT001 _ 013018 _ABD_ 01 _BL	13:31	204730405	1440.0	M	3	4.0	
FRB-01 _ 18WT001 _ 013018 _ABD_ 02 _BL	13:47	204730408	1470.0	M	2	3.0	
FRB-01 _ 18WT001 _ 013018 _ABD_ 03 _BL	13:58	204730407	1630.0	M	3	5.0	4 full tubes
FRB-01 _ 18WT001 _ 013018 _ABD_ 04 _BL	14:16	204730406	1150.0	M	2	4.0	
FRB-01 _ 18WT001 _ 013018 _ABD_ 05 _BL	14:28	204730409	1250.0	M	2	4.0	

Requested Analyses

Analytes:	Methods:	Container:	Preservative
Total Mercury	1631e	70 uL Capillary Tube	Frozen

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: No
MS/MSD Source: NA

Notes:

Duck sampling was conducted according to the following SOPs included in the QAPP: SOP S-10 American Black Duck Sampling

Additional ducks from oceanarium on Frenchmans Bay

Technician name (Print): Kendra Bavor
QA/QC by:

Technician Signature: 
Date:

amec foster wheeler

SAMPLE COLLECTION LOG
AMERICAN BLACK DUCK BLOOD

Project Name: USDC Penobscot River
Project Number: 3616166052.04A.4A052
Date: 01/31/2018
Location ID: FRB-01
Collectors: LSV, KCB
Collection Method (Equip): Wire Trap

Sample ID	Time	Band Number	Weight (grams)	Sex	Age	Capillary Tubes	Notes
FRB-01 _ 18WT001 _ 013118 _ABD_ 13 _BL	15:30	204730456	1390.0	M	2	3.0	
FRB-01 _ 18WT001 _ 013118 _ABD_ 14 _BL	15:40	204730457	1500.0	M	3	3.0	
FRB-01 _ 18WT001 _ 013118 _ABD_ 15 _BL	15:45	204730458	1550.0	M	3	3.0	

Requested Analyses

Analytes:	Methods:	Container:	Preservative
Total Mercury	1631e	70 uL Capillary Tube	Frozen

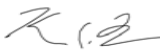
Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: No
MS/MSD Source: NA

Notes:

Duck sampling was conducted according to the following SOPs included in the QAPP: SOP S-10 American Black Duck Sampling

Technician name (Print): Kendra Bavor
QA/QC by:

Technician Signature: 
Date:

amec foster wheeler

SAMPLE COLLECTION LOG
AMERICAN BLACK DUCK BLOOD

Project Name: USDC Penobscot River
Project Number: 3616166052.04A.4A052
Date: 01/30/2018
Location ID: FRB-OCN
Collectors: LSV, KCB
Collection Method (Equip): Wire Trap

Sample ID	Time	Band Number	Weight (grams)	Sex	Age	Capillary Tubes	Notes
FRB-OCN _ 18WT001 _ 013018 _ABD_ 06 _BL	14:45	204730412	1580.0	M	3	5.0	MS MD
FRB-OCN _ 18WT001 _ 013018 _ABD_ 07 _BL	14:55	211730808	1460.0	F	3	4.0	
FRB-OCN _ 18WT001 _ 013018 _ABD_ 08 _BL	15:05	204730410	1440.0	F	2	5.0	
FRB-OCN _ 18WT001 _ 013018 _ABD_ 09 _BL	15:20	204730411	1500.0	M	3	4.0	
FRB-OCN _ 18WT001 _ 013018 _ABD_ 10 _BL	15:25	204730413	1460.0	M	3	5.0	
FRB-OCN _ 18Wt001 _ 013018 _ABD_ 11 _BL	15:35	204730414	1380.0	M	2	3.5	
FRB-OCN _ 18WT001 _ 013018 _ABD_ 12 _BL	15:45	210705437	1580.0	M	2	2.5	

Requested Analyses

Analytes:	Methods:	Container:	Preservative
Total Mercury	1631e	70 uL Capillary Tube	Frozen

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: Yes
MS/MSD Source: 06

Notes:

Duck sampling was conducted according to the following SOPs included in the QAPP: SOP S-10 American Black Duck Sampling

Additional ABD for Frenchmans bay from Jordan Rive (FRB_01)

Technician name (Print): Kendra Bavor
QA/QC by:

Technician Signature: 
Date:

amec foster wheeler

SAMPLE COLLECTION LOG
AMERICAN BLACK DUCK BLOOD

Project Name: USDC Penobscot River
Project Number: 3616166052.04A.4A052
Date: 01/29/2018
Location ID: MMBKD-01
Collectors: LSV, KCB
Collection Method (Equip): Wire Trap

Sample ID	Time	Band Number	Weight (grams)	Sex	Age	Capillary Tubes	Notes
MMBKD-01 _ 18WT001 _ 012918 _ABD_ 01 _BL	15:30	213725826	1280.0	F	2	5.0	Ms md volume

Requested Analyses

Analytes:	Methods:	Container:	Preservative
Total Mercury	1631e	70 uL Capillary Tube	Frozen

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: Yes
MS/MSD Source: 01

Notes:

Duck sampling was conducted according to the following SOPs included in the QAPP: SOP S-10 American Black Duck Sampling

Technician name (Print): Kendra Bavor
QA/QC by:

Technician Signature:
Date:

amec foster wheeler

SAMPLE COLLECTION LOG
AMERICAN BLACK DUCK BLOOD

Project Name: USDC Penobscot River
Project Number: 3616166052.04A.4A052
Date: 01/30/2018
Location ID: MMBKD-01
Collectors: LSV, KCB
Collection Method (Equip): Wire Trap

Sample ID	Time	Band Number	Weight (grams)	Sex	Age	Capillary Tubes	Notes
MMBKD-01 _ 18WT001 _ 013018 _ABD_ 02 _BL	18:15	213725847	1400.0	M	3	4.0	
MMBKD-01 _ 18WT001 _ 013018 _ABD_ 03 _BL	18:30	213725848	1280.0	F	3	4.0	
MMBKD-01 _ 18WT001 _ 013018 _ABD_ 04 _BL	18:40	213725849	1300.0	M	3	4.0	
MMBKD-01 _ 18WT001 _ 013018 _ABD_ 05 _BL	18:48	213725850	1280.0	M	3	3.0	
MMBKD-01 _ 18WT001 _ 013018 _ABD_ 06 _BL	18:55	213725852	1210.0	M	2	4.0	
MMBKD-01 _ 18WT001 _ 013018 _ABD_ 07 _BL	19:00	213725851	1380.0	M	3	2.5	
MMBKD-01 _ 18WT001 _ 013018 _ABD_ 08 _BL	19:10	213725856	1290.0	M	3	3.0	
MMBKD-01 _ 18WT001 _ 013018 _ABD_ 09 _BL	19:15	213725858	1530.0	M	3	5.0	4 full tubes
MMBKD-01 _ 18WT001 _ 013018 _ABD_ 10 _BL	19:25	213725861	1350.0	F	3	4.0	
MMBKD-01 _ 18WT001 _ 013018 _ABD_ 11 _BL	19:30	213725862	1400.0	M	3	3.0	204712272
MMBKD-01 _ 18WT001 _ 013018 _ABD_ 12 _BL	19:35	213725855	1370.0	M	3	3.3	
MMBKD-01 _ 18WT001 _ 013018 _ABD_ 13 _BL	19:45	213725859	1280.0	F	3	3.5	
MMBKD-01 _ 18WT001 _ 013018 _ABD_ 14 _BL	19:55	213725854	1260.0	M	3	4.0	
MMBKD-01 _ 18WT001 _ 013018 _ABD_ 15 _BL	20:05	213725860	1160.0	F	3	4.0	

Requested Analyses

Analytes:	Methods:	Container:	Preservative
Total Mercury	1631e	70 uL Capillary Tube	Frozen

Additional Questions:

Preservative at Collection: Wet Ice
QC Collected: No
MS/MSD Source: NA

Notes:

Duck sampling was conducted according to the following SOPs included in the QAPP: SOP S-10 American Black Duck Sampling

Technician name (Print): Kendra Bavor
QA/QC by:

Technician Signature:
Date:

APPENDIX B-2

2017 Field Activity Photographs

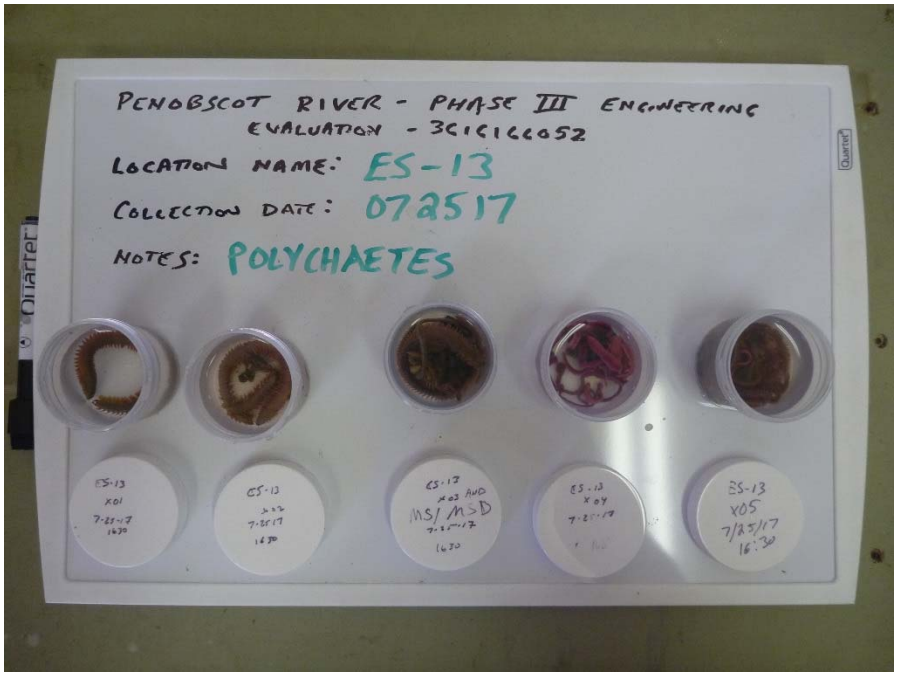
Penobscot River Phase III – Engineering Study
Penobscot River, Maine

Photographic Log

	Client: United States District Court District of Maine Location: W-17 Project No.: 3616166052 Date: 7/20/2016 Photo No.: 1 Photographer: Kendra Bavor Description: Mist Net used for catching birds to be sampled and tagged.
	Client: United States District Court District of Maine Location: W-17 Project No.: 3616166052 Date: 06/19/2017 Photo No.: 2 Photographer: Kendra Bavor Description: Measurement of bird wing chord prior to sampling, banding, and releasing.

	Client: United States District Court District of Maine Location: Mendall Marsh Project No.: 3616166052 Date: 06/19/2017 Photo No.: 3 Photographer: Kendra Bavor Description: Band applied to bird leg prior to release.
	Client: United States District Court District of Maine Location: Mendall Marsh Project No.: 3616166052 Date: 06/27/2017 Photo No.: 4 Photographer: Kendra Bavor Description: Banded and sampled red-winged blackbird ready for release.

	Client: United States District Court District of Maine Location: Mendall Marsh Project No.: 3616166052 Date: 06/27/2017 Photo No.: 5 Photographer: Louise Venne Description: Nelson's sparrow ready for release after sampling and banding.
	Client: United States District Court District of Maine Location: OB-01 Project No.: 3616166052 Date: 07/25/2017 Photo No.: 6 Photographer: Paul Haywood Description: Polychaete samples collected at location OB-01

	Client: United States District Court District of Maine Location: ES-13 Project No.: 3616166052 Date: 07/25/2017 Photo No.: 7 Photographer: Paul Haywood Description: Polychaete sample collected at location ES-13
	Client: United States District Court District of Maine Location: ES-03 Project No.: 3616166052 Date: 07/27/2017 Photo No.: 8 Photographer: Paul Haywood Description: Polychaete sample collected at location ES-03

	Client: United States District Court District of Maine Location: ES-13 Project No.: 3616166052 Date: 07/25/2017 Photo No.: 9 Photographer: Paul Haywood Description: Polychaete samples collected using clam fork.
	Client: United States District Court District of Maine Location: N/A Project No.: 3616166052 Date: 07/26/2017 Photo No.: 10 Photographer: Louise Venne Description: Polychaete samples (*Nereididae* spp.) under microscope for identification.

Client: United States District Court District of Maine
Location: OV-04
Project No.: 3616166052
Date: 06/08/2017
Photo No.: 11
Photographer: Jonathan Bourdeau
Description: Traps used for obtaining eel samples.

Client: United States District Court District of Maine
Location: BO-04
Project No.: 3616166052
Date: 06/05/2017
Photo No.: 12
Photographer: Jonathan Bourdeau
Description: Eel sample being measured for length.

Client: United States District Court District of Maine
Location: OV-04
Project No.: 3616166052
Date: 06/08/2017
Photo No.: 13
Photographer: Jonathan Bourdeau
Description: Eel traps set along the shore of Ayers Island.

Client: United States District Court District of Maine
Location: OB-05
Project No.: 3616166052
Date: 06/05/2017
Photo No.: 14
Photographer: Jonathan Bourdeau
Description: Eels in eel trap.

Client:
United States District Court District of Maine

Location:
Steaming to sample location

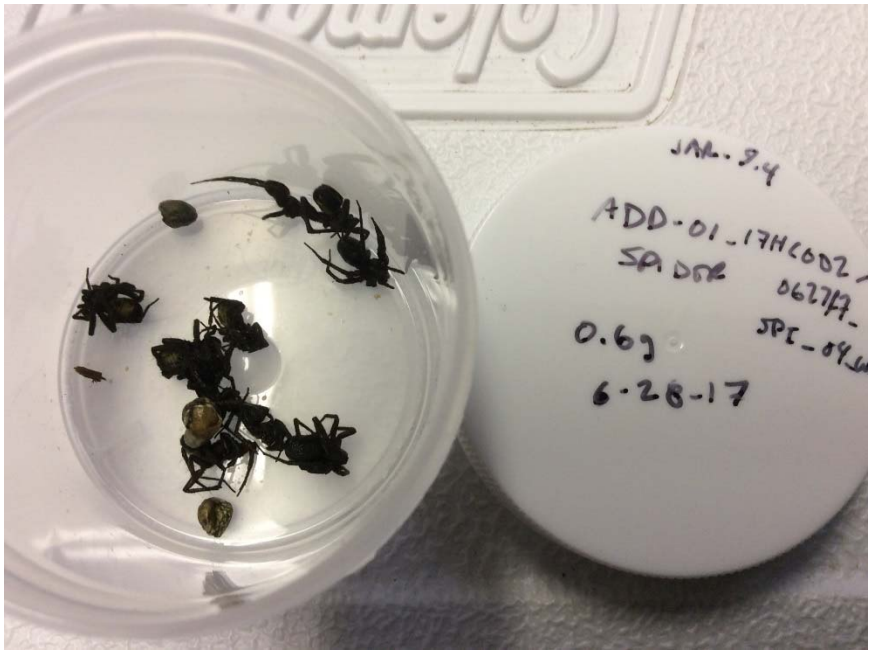
Project No.:
3616166052

Date:
06/06/2017

Photo No.:
15

Photographer:
Jonathan Bourdeau

Description:
Eel trap prepared for deployment.



Client:
United States District Court District of Maine

Location:
ADD-01

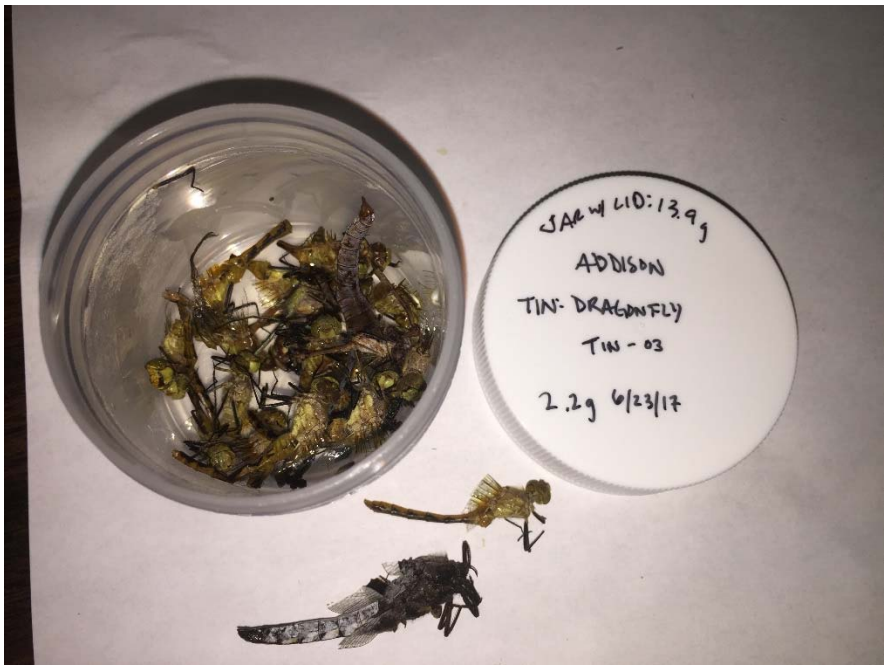
Project No.:
3616166052

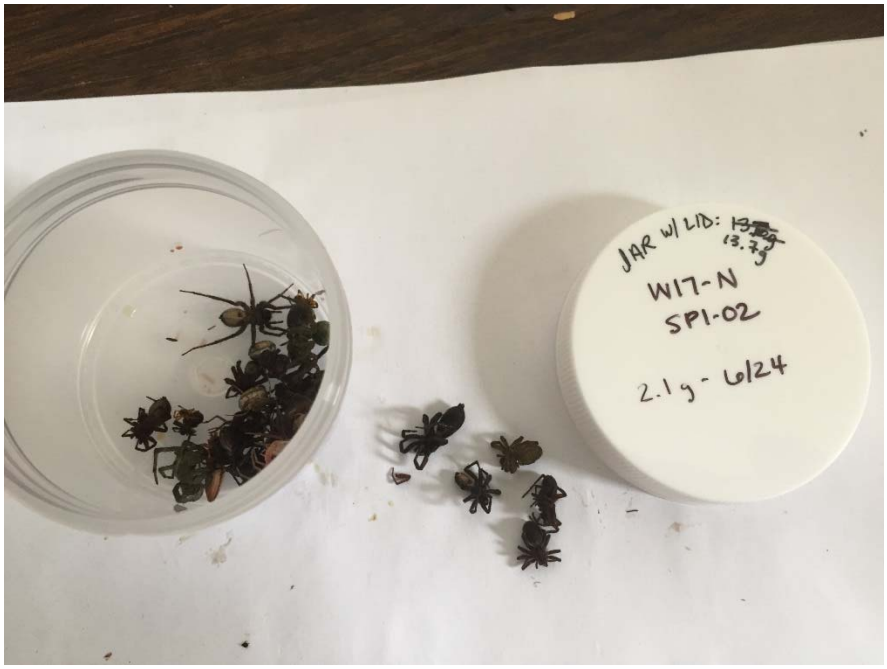
Date:
06/28/2017

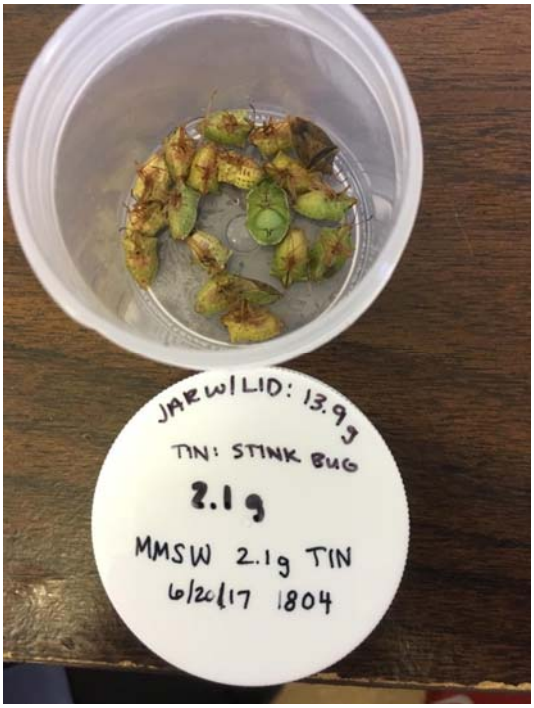
Photo No.:
16

Photographer:
Lauren Tierney

Description:
Spider sample, 0.6 grams, collected from location ADD-01.

	Client: United States District Court District of Maine Location: ADD-01 Project No.: 3616166052 Date: 06/24/2017 Photo No.: 17 Photographer: Lauren Tierney Description: Dragon fly sample collected on 6/23/2017 weighing 2.2 grams.
	Client: United States District Court District of Maine Location: MMSW Project No.: 3616166052 Date: 06/24/2017 Photo No.: 18 Photographer: Lauren Tierney Description: Grasshopper sample, 1.8 grams collected on 06/20/2017, 2.3 grams collected on 06/23/2017.

	Client: United States District Court District of Maine Location: W-17-N Project No.: 3616166052 Date: 06/24/2017 Photo No.: 19 Photographer: Lauren Tierney Description: Grasshopper sample of 2.1 grams collected on 06/24/2017.
	Client: United States District Court District of Maine Location: W-17-N Project No.: 3616166052 Date: 06/24/2017 Photo No.: 20 Photographer: Lauren Tierney Description: Spiders collected in marsh W-17-N.

	Client: United States District Court District of Maine Location: MM-SW Project No.: 3616166052 Date: 06/20/2017 Photo No.: 21 Photographer: Lauren Tierney Description: Insects (stink bugs) collected in Mendall Marsh Southwest.
	Client: United States District Court District of Maine Location: Mendall Marsh Project No.: 3616166052 Date: 06/21/2017 Photo No.: 22 Photographer: Kendra Bavor Description: Insect collection and sorting in the field using sweep net, aspirators, and tweezers.

Client: United States District Court District of Maine
Location: Underway in Frenchman Bay
Project No.: 3616166052
Date: 09/25/2017
Photo No.: 23
Photographer: Jonathan Bourdeau
Description: Lobster traps loaded on boat underway in Frenchman Bay

Client: United States District Court District of Maine
Location: Penobscot Bay
Project No.: 3616166052
Date: 09/25/2017
Photo No.: 24
Photographer: Jonathan Bourdeau
Description: Preparation of lobster trap for deployment.

Client: United States District Court District of Maine
Location: Penobscot Bay
Project No.: 3616166052
Date: 09/12/2017
Photo No.: 25
Photographer: Paul Haywood
Description: Lobster sample

Client: United States District Court District of Maine
Location: Penobscot Bay
Project No.: 3616166052
Date: 09/12/2017
Photo No.: 26
Photographer: Jonathan Bourdeau
Description: Lobster sample

	Client: United States District Court District of Maine
	Location: OB-05
	Project No.: 3616166052
	Date: 09/17/2017
	Photo No.: 27
	Photographer: Jonathan Bourdeau
	Description: Deploying of eel trap to collect tomcod.

	Client: United States District Court District of Maine
	Location: BO-04
	Project No.: 3616166052
	Date: 06/05/2017
	Photo No.: 28
	Photographer: Jonathan Bourdeau
	Description: Tomcod and green crab caught in eel trap.

	Client: United States District Court District of Maine Location: OB-01 Project No.: 3616166052 Date: 06/08/2017 Photo No.: 29 Photographer: Jonathan Bourdeau Description: Tomcod samples
	Client: United States District Court District of Maine Location: Mendall Marsh Project No.: 3616166052 Date: 09/20/2017 Photo No.: 30 Photographer: Johnathan Bourdeau Description: Numerous mummichog and two green crab caught in minnow trap

APPENDIX C

2017 Biota Data Summary Tables

Appendix C-1
2017 Terrestrial Insect Analytical Results

2017 Biota Monitoring Report
Penobscot River

		Parameter Name:	Mercury		Methyl Mercury	
		Analytic Method:	EPA 1631		EPA 1630	
		Units:	ng/g		ng/g	
Location ID	**Sample Date**	**Sample ID**	**Result**	**Qual.**	**Result**	**Qual.**
ADD-01	6/23/2017	ADD-01_17BN001_062317_TIN_01_WB	1.54		1.3	J
ADD-01	6/23/2017	ADD-01_17BN002_062317_TIN_02_WB	11.5		8.2	
ADD-01	6/23/2017	ADD-01_17BN003_062317_TIN_03_WB	41.8		29.8	
ADD-01	6/23/2017	ADD-01_17BN004_062317_TIN_04_WB	25		26.1	J
ADD-01	6/23/2017	ADD-01_17HC002_062317_TIN_05_WB	2.62		2.2	
W17-N	6/25/2017	W17-N_17BN001_062517_TIN_03_WB	5.19		3.2	
W17-N	6/25/2017	W17-N_17BN001_062517_TIN_04_WB	5.7		4.9	
W17-N	6/24/2017	W17-N_17BN004_062417_TIN_02_WB	36.5		39.2	
W17-N	6/24/2017	W17-N_17BN005_062417_TIN_01_WB	6.59		2.4	
W17-N	6/25/2017	W17-N_17MN001_062517_TIN_05_WB	49.7	J	41.6	
MMSE-1	6/21/2017	MMSE-1_17BN001_062117_TIN_01_WB	71.7		60.2	J
MMSE-1	6/21/2017	MMSE-1_17BN001_062117_TIN_02_WB	7.62		6.9	
MMSE-1	6/21/2017	MMSE-1_17BN001_062117_TIN_04_WB	2.95		2.1	
MMSE-1	6/21/2017	MMSE-1_17BN003_062117_TIN_05_WB	22.7		21.2	
MMSE-1	6/21/2017	MMSE-1_17BN004_062117_TIN_03_WB	24.6		21.5	
MMSW-C	6/23/2017	MMSW-C_17BN001_062317_TIN_04_WB	11.6	J	14.7	
MMSW-C	6/23/2017	MMSW-C_17BN002_062317_TIN_02_WB	35.6		27.1	
MMSW-C	6/23/2017	MMSW-C_17BN002_062317_TIN_03_WB	34.3		28.4	
MMSW-C	6/23/2017	MMSW-C_17BN003_062317_TIN_01_WB	3.75		2.9	
MMSW-C	6/23/2017	MMSW-C_17BN004_062317_TIN_05_WB	93.7		49.5	

Notes:
ng/g = nanograms per gram

Data Qualifier Definitions:
J = The detected concentration is considered estimated

Appendix C-2
2017 Spider Analytical Results

2017 Biota Monitoring Report
Penobscot River

		Parameter Name:	Mercury		Methyl Mercury	
		Analytic Method:	EPA 1631		EPA 1630	
		Units:	ng/g		ng/g	
Location ID	**Sample Date**	**Sample ID**	**Result**	**Qual.**	**Result**	**Qual.**
ADD-01	6/23/2017	ADD-01_17HC001_062317_SPI_01_WB	67.5		73.2	
ADD-01	6/27/2017	ADD-01_17HC001_062717_SPI_02_WB	51.2		59.5	
ADD-01	6/27/2017	ADD-01_17HC001_062717_SPI_03_WB	44.2	J	56.7	J
ADD-01	6/27/2017	ADD-01_17HC001_062717_SPI_05_WB	55		50.4	
ADD-01	6/27/2017	ADD-01_17HC002_062717_SPI_04_WB	57.3		58.5	
W17-N	6/25/2017	W17-N_17PT001_062517_SPI_05_WB	402		266	
W17-N	6/25/2017	W17-N_17PT002_062517_SPI_03_WB	349		329	
W17-N	6/24/2017	W17-N_17PT003_062417_SPI_01_WB	302		287	
W17-N	6/24/2017	W17-N_17PT003_062417_SPI_02_WB	315		324	
W17-N	6/25/2017	W17-N_17PT004_062517_SPI_04_WB	293		323	
MMSE-1	7/19/2017	MMSE-1_17HC005_071917_SPI_03_WB	622		544	
MMSE-1	7/19/2017	MMSE-1_17HC005_071917_SPI_04_WB	581	J	748	J
MMSE-1	7/19/2017	MMSE-1_17HC005_071917_SPI_05_WB	560		564	
MMSE-1	6/21/2017	MMSE-1_17PT002_062117_SPI_02_WB	526		511	
MMSE-1	6/21/2017	MMSE-1_17PT003_062117_SPI_01_WB	278		296	J
MMSW-C	6/23/2017	MMSW-C_17PT001_062317_SPI_04_WB	315		50.8	
MMSW-C	6/23/2017	MMSW-C_17PT002_062317_SPI_01_WB	403		495	
MMSW-C	6/23/2017	MMSW-C_17PT002_062317_SPI_02_WB	305		370	
MMSW-C	6/23/2017	MMSW-C_17PT003_062317_SPI_03_WB	325		330	
MMSW-C	6/23/2017	MMSW-C_17PT005_062317_SPI_05_WB	279		337	

Notes:
ng/g = nanograms per gram

Data Qualifier Definitions:
J = The detected concentration is considered estimated

Appendix C-3
2017 Nelson's Sparrow Blood Analytical Results

2017 Biota Monitoring Report
Penobscot River

		Parameter Name:	Mercury	
		Analytic Method:	EPA 1631	
		Units:	ng/g	
Location ID	**Sample Date**	**Sample ID**	**Result**	**Qual.**
ADD-01	6/21/2017	ADD-01_17MN001_062117_NSS_01_BL	508	
ADD-01	6/21/2017	ADD-01_17MN001_062117_NSS_02_BL	520	
ADD-01	6/21/2017	ADD-01_17MN001_062117_NSS_03_BL	342	
ADD-01	6/22/2017	ADD-01_17MN001_062217_NSS_09_BL	343	
ADD-01	6/22/2017	ADD-01_17MN002_062217_NSS_11_BL	378	
ADD-01	6/22/2017	ADD-01_17MN002_062217_NSS_12_BL	373	
ADD-01	6/21/2017	ADD-01_17MN003_062117_NSS_08_BL	343	
ADD-01	6/21/2017	ADD-01_17MN004_062117_NSS_06_BL	375	
ADD-01	6/21/2017	ADD-01_17MN006_062117_NSS_05_BL	465	
ADD-01	6/21/2017	ADD-01_17MN006_062117_NSS_07_BL	339	
ADD-01	6/22/2017	ADD-01_17MN007_062217_NSS_10_BL	219	
ADD-01	6/21/2017	ADD-01_17MN009_062117_NSS_04_BL	280	
ADD-01	6/22/2017	ADD-01_17MN011_062217_NSS_13_BL	264	
ADD-01	6/27/2017	ADD-01_17MN050_062717_NSS_14_BL	460	
ADD-01	6/27/2017	ADD-01_17MN051_062717_NSS_15_BL	618	
W17-N	6/19/2017	W17-N_17MN001_061917_NSS_01_BL	1820	
W17-N	6/20/2017	W17-N_17MN001_062017_NSS_04_BL	3630	
W17-N	6/20/2017	W17-N_17MN002_062017_NSS_05_BL	1410	
W17-N	6/20/2017	W17-N_17MN007_062017_NSS_03_BL	2630	
W17-N	6/20/2017	W17-N_17MN007_062017_NSS_06_BL	2020	
W17-N	6/19/2017	W17-N_17MN008_061917_NSS_02_BL	1690	
W17-N	6/20/2017	W17-N_17MN010_062017_NSS_07_BL	2360	
W17-N	6/25/2017	W17-N_17MN037_062517_NSS_08_BL	3300	
W17-N	6/25/2017	W17-N_17MN037_062517_NSS_09_BL	2350	
W17-N	6/25/2017	W17-N_17MN041_062517_NSS_10_BL	3060	
W17-N	6/26/2017	W17-N_17MN058_062617_NSS_11_BL	2570	
W17-N	6/29/2017	W17-N_17MN063_062917_NSS_12_BL	6010	
MMSE-1	6/21/2017	MMSE-1_17MN001_062117_NSS_06_BL	1620	
MMSE-1	6/21/2017	MMSE-1_17MN002_062117_NSS_07_BL	2070	
MMSE-1	6/21/2017	MMSE-1_17MN002_062117_NSS_08_BL	1570	
MMSE-1	6/21/2017	MMSE-1_17MN003_062117_NSS_01_BL	2350	
MMSE-1	6/21/2017	MMSE-1_17MN007_062117_NSS_03_BL	3110	
MMSE-1	6/22/2017	MMSE-1_17MN008_062217_NSS_15_BL	2340	
MMSE-1	6/21/2017	MMSE-1_17MN009_062117_NSS_02_BL	2810	
MMSE-1	6/21/2017	MMSE-1_17MN010_062117_NSS_04_BL	2200	
MMSE-1	6/21/2017	MMSE-1_17MN010_062117_NSS_05_BL	2860	
MMSE-1	6/21/2017	MMSE-1_17MN010_062117_NSS_09_BL	1820	
MMSE-1	6/21/2017	MMSE-1_17MN010_062117_NSS_10_BL	1290	
MMSE-1	6/22/2017	MMSE-1_17MN011_062217_NSS_12_BL	1810	
MMSE-1	6/22/2017	MMSE-1_17MN011_062217_NSS_14_BL	3020	
MMSE-1	6/22/2017	MMSE-1_17MN018_062217_NSS_13_BL	2670	
MMSE-1	6/22/2017	MMSE-1_17MN019_062217_NSS_11_BL	1940	

Appendix C-3
2017 Nelson's Sparrow Blood Analytical Results

2017 Biota Monitoring Report
Penobscot River

		Parameter Name:	Mercury	
		Analytic Method:	EPA 1631	
		Units:	ng/g	
Location ID	**Sample Date**	**Sample ID**	**Result**	**Qual.**
MMSW-C	6/19/2017	MMSW-C_17MN006_061917_NSS_01_BL	3460	
MMSW-C	6/19/2017	MMSW-C_17MN006_061917_NSS_03_BL	4200	
MMSW-C	6/19/2017	MMSW-C_17MN008_061917_NSS_02_BL	2990	
MMSW-C	6/19/2017	MMSW-C_17MN009_061917_NSS_04_BL	4190	
MMSW-C	6/19/2017	MMSW-C_17MN009_061917_NSS_05_BL	1410	
MMSW-C	6/20/2017	MMSW-C_17MN010_062017_NSS_09_BL	2400	
MMSW-C	6/20/2017	MMSW-C_17MN015_062017_NSS_06_BL	2150	
MMSW-C	6/20/2017	MMSW-C_17MN015_062017_NSS_08_BL	2300	
MMSW-C	6/20/2017	MMSW-C_17MN016_062017_NSS_07_BL	2190	
MMSW-C	6/23/2017	MMSW-C_17MN021_062317_NSS_10_BL	2140	
MMSW-C	6/23/2017	MMSW-C_17MN026_062317_NSS_12_BL	5010	
MMSW-C	6/23/2017	MMSW-C_17MN027_062317_NSS_11_BL	1890	
MMSW-C	6/23/2017	MMSW-C_17MN027_062317_NSS_13_BL	3280	
MMSW-C	6/25/2017	MMSW-C_17MN027_062517_NSS_14_BL	4410	
MMSW-C	6/25/2017	MMSW-C_17MN027_062517_NSS_15_BL	3740	

Notes:
ng/g = nanograms per gram

Data Qualifier Definitions:
A data quality evaluation was performed on the data, no qualifiers were applied

Appendix C-4
2017 Red-winged Blackbird Blood Analytical Results

2017 Biota Monitoring Report
Penobscot River

		Parameter Name:	Mercury	
		Analytic Method:	EPA 1631	
		Units:	ng/g	
Location ID	**Sample Date**	**Sample ID**	**Result**	**Qual.**
W17-N	6/19/2017	W17-N_17MN002_061917_RWB_01_BL	165	
W17-N	6/19/2017	W17-N_17MN005_061917_RWB_02_BL	2450	
W17-N	6/19/2017	W17-N_17MN006_061917_RWB_03_BL	1800	
W17-N	6/19/2017	W17-N_17MN006_061917_RWB_04_BL	4940	
W17-N	6/25/2017	W17-N_17MN039_062517_RWB_05_BL	4440	
MMSE-1	6/21/2017	MMSE-1_17MN004_062117_RWB_01_BL	1090	J
MMSE-1	6/27/2017	MMSE-1_17MN044_062717_RWB_02_BL	6260	J
MMSE-1	6/27/2017	MMSE-1_17MN045_062717_RWB_03_BL	6170	J
MMSE-1	6/27/2017	MMSE-1_17MN047_062717_RWB_05_BL	1150	J
MMSE-1	6/28/2017	MMSE-1_17MN064_062817_RWB_06_BL	7210	J
MMSE-1	6/27/2017	MMSE-1_17MN075_062717_RWB_04_BL	2680	J
MMSW-C	6/19/2017	MMSW-C_17MN009_061917_RWB_01_BL	5740	
MMSW-C	6/23/2017	MMSW-C_17MN020_062317_RWB_03_BL	8460	
MMSW-C	6/23/2017	MMSW-C_17MN020_062317_RWB_04_BL	1030	
MMSW-C	6/23/2017	MMSW-C_17MN022_062317_RWB_02_BL	6020	J
MMSW-C	6/25/2017	MMSW-C_17MN036_062517_RWB_05_BL	5020	
MMSW-C	6/26/2017	MMSW-C_17MN036_062617_RWB_06_BL	6720	

Notes:
ng/g = nanograms per gram

Data Qualifier Definitions:
J = The detected concentration is considered estimated

Appendix C-6
2017 Polychaete Worm Analytical Results

2017 Biota Monitoring Report
Penobscot River

		Parameter Name:	Mercury		Methyl Mercury	
		Analytic Method:	EPA 1631		EPA 1630	
		Units:	ng/g		ng/g	
Location ID	**Sample Date**	**Sample ID**	**Result**	**Qual.**	**Result**	**Qual.**
FRB-01	9/12/2017	FRB-01_17HD001_091217_POL_01_WB	8.82			
FRB-01	9/12/2017	FRB-01_17HD001_091217_POL_02_WB	7.66			
FRB-01	9/12/2017	FRB-01_17HD001_091217_POL_03_WB	7.4			
FRB-01	9/12/2017	FRB-01_17HD001_091217_POL_04_WB	8.1			
FRB-01	9/12/2017	FRB-01_17HD001_091217_POL_05_WB	7.17			
OB-01	7/25/2017	OB-01_17HC001_072517_POL_01_WB	30.5		9.9	
OB-01	7/25/2017	OB-01_17HC001_072517_POL_02_WB	30.6		7.5	
OB-01	7/25/2017	OB-01_17HC001_072517_POL_03_WB	32		12.7	
OB-01	7/25/2017	OB-01_17HC001_072517_POL_04_WB	35.8		10.4	
OB-01	7/25/2017	OB-01_17HC001_072517_POL_05_WB	29.5		12.3	
MM-MR	8/1/2017	MM-MR_INT_17HC001_080117_POL_01_WB	53.8		7.5	
MM-MR	8/1/2017	MM-MR_INT_17HC001_080117_POL_02_WB	39.9		4.1	
MM-MR	8/1/2017	MM-MR_INT_17HC001_080117_POL_03_WB	37.4		5.7	
MM-MR	8/1/2017	MM-MR_INT_17HC001_080117_POL_04_WB	59.2		7.7	
MM-MR	8/1/2017	MM-MR_INT_17HC001_080117_POL_05_WB	54.5		6.1	
BFK	7/31/2017	BFK_17HC001_073117_POL_01_WB	17.6		9.5	
BFK	7/31/2017	BFK_17HC001_073117_POL_02_WB	21.2		8.7	
BFK	7/31/2017	BFK_17HC001_073117_POL_03_WB	14.7		8.0	
BFK	7/31/2017	BFK_17HC001_073117_POL_04_WB	12.4		3.4	
BFK	7/31/2017	BFK_17HC001_073117_POL_05_WB	18.3		9.5	
PI-01	8/2/2017	PI-01_17HC001_080217_POL_01_WB	37.1		16.9	
PI-01	8/2/2017	PI-01_17HC001_080217_POL_02_WB	45.5		5.9	
PI-01	8/2/2017	PI-01_17HC001_080217_POL_03_WB	33.2		11.6	
PI-01	8/2/2017	PI-01_17HC001_080217_POL_04_WB	21.8		4.6	
PI-01	8/2/2017	PI-01_17HC001_080217_POL_05_WB	42		16	
ES-02E	7/31/2017	ES-02E_17HC001_073117_POL_01_WB	10.3		6.2	
ES-02E	7/31/2017	ES-02E_17HC001_073117_POL_02_WB	24.6		11.8	
ES-02E	7/31/2017	ES-02E_17HC001_073117_POL_03_WB	29.8		11.4	
ES-02E	7/31/2017	ES-02E_17HC001_073117_POL_04_WB	31.5		17.7	
ES-02E	7/31/2017	ES-02E_17HC001_073117_POL_05_WB	38.8		10.8	
ES-15	8/16/2017	ES-15_17HC001_081617_POL_01_WB	42			
ES-15	8/16/2017	ES-15_17HC001_081617_POL_02_WB	21.2			
ES-15	8/16/2017	ES-15_17HC001_081617_POL_03_WB	30.5			
ES-15	8/16/2017	ES-15_17HC001_081617_POL_04_WB	32			
ES-15	8/16/2017	ES-15_17HC001_081617_POL_05_WB	21.7			
VI-W	8/16/2017	VI-W_17HC001_081617_POL_01_WB	23.8			
VI-W	8/16/2017	VI-W_17HC001_081617_POL_02_WB	19.6			
VI-W	8/16/2017	VI-W_17HC001_081617_POL_03_WB	16.9			
VI-W	8/16/2017	VI-W_17HC001_081617_POL_04_WB	23.7			
VI-W	8/16/2017	VI-W_17HC001_081617_POL_05_WB	20.1			
ES-03	7/27/2017	ES-03_17HC001_072717_POL_01_WB	35.9			
ES-03	7/27/2017	ES-03_17HC001_072717_POL_02_WB	29.7			
ES-03	7/27/2017	ES-03_17HC001_072717_POL_03_WB	48			
ES-03	7/27/2017	ES-03_17HC001_072717_POL_04_WB	27.8			
ES-03	7/27/2017	ES-03_17HC001_072717_POL_05_WB	22.4			

Appendix C-6
2017 Polychaete Worm Analytical Results

2017 Biota Monitoring Report
Penobscot River

		Parameter Name:	Mercury		Methyl Mercury	
		Analytic Method:	EPA 1631		EPA 1630	
		Units:	ng/g		ng/g	
Location ID	**Sample Date**	**Sample ID**	**Result**	**Qual.**	**Result**	**Qual.**
ES-13	7/25/2017	ES-13_17HC001_072517_POL_01_WB	46.1			
ES-13	7/25/2017	ES-13_17HC001_072517_POL_02_WB	28			
ES-13	7/25/2017	ES-13_17HC001_072517_POL_03_WB	19.5			
ES-13	7/25/2017	ES-13_17HC001_072517_POL_04_WB	13			
ES-13	7/25/2017	ES-13_17HC001_072517_POL_05_WB	13.6			
SVE-02INT	8/2/2017	SVE-02INT_17HC001_080217_POL_01_WB	28.9		12.6	
SVE-02INT	8/2/2017	SVE-02INT_17HC001_080217_POL_02_WB	23.9		9.7	
SVE-02INT	8/2/2017	SVE-02INT_17HC001_080217_POL_03_WB	24.7		8.7	
SVE-02INT	8/2/2017	SVE-02INT_17HC001_080217_POL_04_WB	22.1		9.3	
SVE-02INT	8/2/2017	SVE-02INT_17HC001_080217_POL_05_WB	25		11.1	
ES-FP	7/28/2017	ESFP_17HC001_072817_POL_01_WB	12.9			
ES-FP	7/28/2017	ESFP_17HC001_072817_POL_02_WB	12			
ES-FP	7/28/2017	ESFP_17HC001_072817_POL_03_WB	9.71			
ES-FP	7/28/2017	ESFP_17HC001_072817_POL_04_WB	12.9			
ES-FP	7/28/2017	ESFP_17HC001_072817_POL_05_WB	8.94			

Notes:
ng/g = nanograms per gram

Data Qualifier Definitions:
A data quality evaluation was performed on the data, no qualifiers were applied

Appendix C-7
2017 Blue Mussel Analytical Results

2017 Biota Monitoring Report
Penobscot River

		Parameter Name:	Mercury	
		Analytic Method:	EPA 1631	
		Units:	ng/g	
Location ID	**Sample Date**	**Sample ID**	**Result**	**Qual.**
FRB-01	9/13/2017	FRB-01_17HC001_091317_BLM_01_WB	5.52	
FRB-01	9/13/2017	FRB-01_17HC001_091317_BLM_02_WB	6.18	
FRB-01	9/13/2017	FRB-01_17HC001_091317_BLM_03_WB	11.7	
FRB-01	9/13/2017	FRB-01_17HC001_091317_BLM_04_WB	8.51	
FRB-01	9/13/2017	FRB-01_17HC001_091317_BLM_05_WB	7.09	
FRB-01	9/13/2017	FRB-01_17HC001_091317_BLM_06_WB	5.46	
FRB-01	9/13/2017	FRB-01_17HC001_091317_BLM_07_WB	11.9	
FRB-01	9/13/2017	FRB-01_17HC001_091317_BLM_08_WB	13	
FRB-01	9/13/2017	FRB-01_17HC001_091317_BLM_09_WB	7.19	
FRB-01	9/13/2017	FRB-01_17HC001_091317_BLM_10_WB	7.74	
FRB-01	9/13/2017	FRB-01_17HC001_091317_BLM_11_WB	9.2	
FRB-01	9/13/2017	FRB-01_17HC001_091317_BLM_12_WB	7.44	
FRB-01	9/13/2017	FRB-01_17HC001_091317_BLM_13_WB	10.5	
FRB-01	9/13/2017	FRB-01_17HC001_091317_BLM_14_WB	6.45	
FRB-01	9/13/2017	FRB-01_17HC001_091317_BLM_15_WB	10.3	
FRB-01	9/13/2017	FRB-01_17HC001_091317_BLM_16_WB	7.17	
FRB-01	9/13/2017	FRB-01_17HC001_091317_BLM_17_WB	8.36	
FRB-01	9/13/2017	FRB-01_17HC001_091317_BLM_18_WB	6.85	
FRB-01	9/13/2017	FRB-01_17HC001_091317_BLM_19_WB	7.68	
FRB-01	9/13/2017	FRB-01_17HC001_091317_BLM_20_WB	7.02	
ES-15	9/14/2017	ES-15_17HC001_091417_BLM_01_WB	77.1	
ES-15	9/14/2017	ES-15_17HC001_091417_BLM_02_WB	71.6	
ES-15	9/14/2017	ES-15_17HC001_091417_BLM_03_WB	66.5	
ES-15	9/14/2017	ES-15_17HC001_091417_BLM_04_WB	71.2	
ES-15	9/14/2017	ES-15_17HC001_091417_BLM_06_WB	78.4	
ES-15	9/14/2017	ES-15_17HC001_091417_BLM_07_WB	60.6	
ES-15	9/14/2017	ES-15_17HC001_091417_BLM_08_WB	65.9	
ES-15	9/14/2017	ES-15_17HC001_091417_BLM_09_WB	97.6	
ES-15	9/14/2017	ES-15_17HC001_091417_BLM_10_WB	66.1	
ES-15	9/14/2017	ES-15_17HC001_091417_BLM_11_WB	64.5	
ES-15	9/14/2017	ES-15_17HC001_091417_BLM_12_WB	78.9	
ES-15	9/14/2017	ES-15_17HC001_091417_BLM_13_WB	85.9	

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2017 Blue Mussel Analytical Results

2017 Biota Monitoring Report
Penobscot River

		Parameter Name:	Mercury	
		Analytic Method:	EPA 1631	
		Units:	ng/g	
Location ID	**Sample Date**	**Sample ID**	**Result**	**Qual.**
ES-13	9/14/2017	ES-13_17HC001_091417_BLM_01_WB	80.3	
ES-13	9/14/2017	ES-13_17HC001_091417_BLM_02_WB	86.5	
ES-13	9/14/2017	ES-13_17HC001_091417_BLM_03_WB	48.4	
ES-13	9/14/2017	ES-13_17HC001_091417_BLM_04_WB	144	
ES-13	9/14/2017	ES-13_17HC001_091417_BLM_05_WB	71.9	
ES-13	9/14/2017	ES-13_17HC001_091417_BLM_06_WB	109	
ES-13	9/14/2017	ES-13_17HC001_091417_BLM_07_WB	110	
ES-13	9/14/2017	ES-13_17HC001_091417_BLM_08_WB	122	
ES-13	9/14/2017	ES-13_17HC001_091417_BLM_09_WB	106	
ES-13	9/14/2017	ES-13_17HC001_091417_BLM_10_WB	61.8	
ES-13	9/14/2017	ES-13_17HC001_091417_BLM_11_WB	80.5	
ES-13	9/14/2017	ES-13_17HC001_091417_BLM_12_WB	55.7	
ES-13	9/14/2017	ES-13_17HC001_091417_BLM_13_WB	86.4	
ES-13	9/14/2017	ES-13_17HC001_091417_BLM_14_WB	86.8	
ES-13	9/14/2017	ES-13_17HC001_091417_BLM_15_WB	125	
ES-13	9/14/2017	ES-13_17HC001_091417_BLM_16_WB	73.2	
ES-13	9/14/2017	ES-13_17HC001_091417_BLM_17_WB	111	
ES-13	9/14/2017	ES-13_17HC001_091417_BLM_18_WB	90.7	
ES-13	9/14/2017	ES-13_17HC001_091417_BLM_19_WB	76.2	
ES-13	9/14/2017	ES-13_17HC001_091417_BLM_20_WB	79.3	
ES-03	9/19/2017	ES-03_17HC001_091917_BLM_01_WB	75	
ES-03	9/19/2017	ES-03_17HC001_091917_BLM_02_WB	111	
ES-03	9/19/2017	ES-03_17HC001_091917_BLM_03_WB	116	
ES-03	9/19/2017	ES-03_17HC001_091917_BLM_04_WB	123	
ES-03	9/19/2017	ES-03_17HC001_091917_BLM_05_WB	97.6	
ES-03	9/19/2017	ES-03_17HC001_091917_BLM_06_WB	63.5	
ES-03	9/19/2017	ES-03_17HC001_091917_BLM_07_WB	95.6	
ES-03	9/19/2017	ES-03_17HC001_091917_BLM_08_WB	104	
ES-03	9/19/2017	ES-03_17HC001_091917_BLM_09_WB	103	
ES-03	9/19/2017	ES-03_17HC001_091917_BLM_10_WB	89.2	
ES-03	9/19/2017	ES-03_17HC001_091917_BLM_11_WB	160	
ES-03	9/19/2017	ES-03_17HC001_091917_BLM_12_WB	92.3	
ES-03	9/19/2017	ES-03_17HC001_091917_BLM_13_WB	72.8	
ES-03	9/19/2017	ES-03_17HC001_091917_BLM_14_WB	88.7	
ES-03	9/19/2017	ES-03_17HC001_091917_BLM_15_WB	68.9	J
ES-03	9/19/2017	ES-03_17HC001_091917_BLM_16_WB	207	
ES-03	9/19/2017	ES-03_17HC001_091917_BLM_18_WB	79.6	
ES-03	9/19/2017	ES-03_17HC001_091917_BLM_19_WB	86.1	
ES-03	9/19/2017	ES-03_17HC001_091917_BLM_20_WB	75.9	

Appendix C-7
2017 Blue Mussel Analytical Results

2017 Biota Monitoring Report
Penobscot River

		Parameter Name:	Mercury	
		Analytic Method:	EPA 1631	
		Units:	ng/g	
Location ID	**Sample Date**	**Sample ID**	**Result**	**Qual.**
ES-FP	9/19/2017	ES-FP_17HC001_091917_BLM_01_WB	48.8	
ES-FP	9/19/2017	ES-FP_17HC001_091917_BLM_02_WB	58.1	
ES-FP	9/19/2017	ES-FP_17HC001_091917_BLM_03_WB	81.9	
ES-FP	9/19/2017	ES-FP_17HC001_091917_BLM_04_WB	112	
ES-FP	9/19/2017	ES-FP_17HC001_091917_BLM_05_WB	53	
ES-FP	9/19/2017	ES-FP_17HC001_091917_BLM_06_WB	114	
ES-FP	9/19/2017	ES-FP_17HC001_091917_BLM_07_WB	115	
ES-FP	9/19/2017	ES-FP_17HC001_091917_BLM_08_WB	39.1	
ES-FP	9/19/2017	ES-FP_17HC001_091917_BLM_09_WB	73.4	
ES-FP	9/19/2017	ES-FP_17HC001_091917_BLM_10_WB	140	
ES-FP	9/19/2017	ES-FP_17HC001_091917_BLM_11_WB	168	
ES-FP	9/19/2017	ES-FP_17HC001_091917_BLM_12_WB	96.7	
ES-FP	9/19/2017	ES-FP_17HC001_091917_BLM_13_WB	87	
ES-FP	9/19/2017	ES-FP_17HC001_091917_BLM_14_WB	181	
ES-FP	9/19/2017	ES-FP_17HC001_091917_BLM_15_WB	122	
ES-FP	9/19/2017	ES-FP_17HC001_091917_BLM_16_WB	55.9	
ES-FP	9/19/2017	ES-FP_17HC001_091917_BLM_17_WB	91.5	
ES-FP	9/19/2017	ES-FP_17HC001_091917_BLM_18_WB	82.1	
ES-FP	9/19/2017	ES-FP_17HC001_091917_BLM_19_WB	72	
ES-FP	9/19/2017	ES-FP_17HC001_091917_BLM_20_WB	97.3	

Notes:
ng/g = nanograms per gram

Data Qualifier Definitions:
J = The detected concentration is considered estimated

Appendix C-8
2017 Lobster Tail Analytical Results

2017 Biota Monitoring Report
Penobscot River

		Parameter Name:	Mercury	
		Analytic Method:	EPA 1631	
		Units:	ng/g	
Location ID	**Sample Date**	**Sample ID**	**Result**	**Qual.**
FBJR	9/14/2017	FBJR_17LT024_091417_LOB_01_TA	38.9	
FBJR	9/14/2017	FBJR_17LT024_091417_LOB_02_TA	28.8	
FBJR	9/14/2017	FBJR_17LT024_091417_LOB_03_TA	40.6	
FBJR	9/14/2017	FBJR_17LT024_091417_LOB_04_TA	45.4	
FBJR	9/14/2017	FBJR_17LT025_091417_LOB_05_TA	37.5	
FBJR	9/14/2017	FBJR_17LT025_091417_LOB_06_TA	35.2	
FBJR	9/14/2017	FBJR_17LT026_091417_LOB_07_TA	57.5	
FBJR	9/14/2017	FBJR_17LT026_091417_LOB_08_TA	46.2	
FBJR	9/14/2017	FBJR_17LT026_091417_LOB_09_TA	26.8	
FBJR	9/14/2017	FBJR_17LT026_091417_LOB_10_TA	34.1	
FBJR	9/14/2017	FBJR_17LT027_091417_LOB_11_TA	46.9	
FBJR	9/14/2017	FBJR_17LT027_091417_LOB_12_TA	38.4	
FBJR	9/14/2017	FBJR_17LT027_091417_LOB_13_TA	35.5	
FBJR	9/14/2017	FBJR_17LT027_091417_LOB_14_TA	64.8	
FBJR	9/14/2017	FBJR_17LT027_091417_LOB_15_TA	38.1	
FBJR	9/14/2017	FBJR_17LT027_091417_LOB_16_TA	35.4	
FBJR	9/14/2017	FBJR_17LT027_091417_LOB_17_TA	39.2	
FBJR	9/14/2017	FBJR_17LT028_091417_LOB_18_TA	43.3	
FBJR	9/14/2017	FBJR_17LT028_091417_LOB_19_TA	43.8	
FBJR	9/14/2017	FBJR_17LT028_091417_LOB_20_TA	36	
L10-52	9/13/2017	L10-52_17LT006_091317_LOB_01_TA	194	
L10-52	9/13/2017	L10-52_17LT006_091317_LOB_02_TA	153	
L10-52	9/13/2017	L10-52_17LT006_091317_LOB_03_TA	321	
L10-52	9/13/2017	L10-52_17LT006_091317_LOB_04_TA	309	
L10-52	9/13/2017	L10-52_17LT006_091317_LOB_05_TA	128	
L10-52	9/13/2017	L10-52_17LT006_091317_LOB_06_TA	178	
L10-52	9/13/2017	L10-52_17LT007_091317_LOB_07_TA	1730	
L10-52	9/13/2017	L10-52_17LT007_091317_LOB_08_TA	193	
L10-52	9/13/2017	L10-52_17LT007_091317_LOB_09_TA	542	
L10-52	9/13/2017	L10-52_17LT008_091317_LOB_10_TA	237	
L10-52	9/13/2017	L10-52_17LT008_091317_LOB_11_TA	267	
L10-52	9/13/2017	L10-52_17LT008_091317_LOB_12_TA	141	
L10-52	9/13/2017	L10-52_17LT009_091317_LOB_13_TA	241	
L10-52	9/13/2017	L10-52_17LT040_091517_LOB_18_TA	519	
L10-52	9/13/2017	L10-52_17LT040_091517_LOB_19_TA	654	
L10-52	9/13/2017	L10-52_17LT040_091517_LOB_20_TA	278	
L10-52	9/13/2017	L10-52_17LT041_091517_LOB_14_TA	174	
L10-52	9/13/2017	L10-52_17LT041_091517_LOB_15_TA	212	
L10-52	9/13/2017	L10-52_17LT041_091517_LOB_16_TA	250	
L10-52	9/13/2017	L10-52_17LT042_091517_LOB_17_TA	181	

Appendix C-8
2017 Lobster Tail Analytical Results

2017 Biota Monitoring Report
Penobscot River

		Parameter Name:	Mercury	
		Analytic Method:	EPA 1631	
		Units:	ng/g	
Location ID	**Sample Date**	**Sample ID**	**Result**	**Qual.**
SVE-01	9/13/2017	SVE-01_17LT011_091317_LOB_01_TA	303	
SVE-01	9/13/2017	SVE-01_17LT011_091317_LOB_02_TA	290	
SVE-01	9/13/2017	SVE-01_17LT011_091317_LOB_03_TA	397	
SVE-01	9/13/2017	SVE-01_17LT011_091317_LOB_04_TA	191	
SVE-01	9/13/2017	SVE-01_17LT011_091317_LOB_05_TA	180	
SVE-01	9/13/2017	SVE-01_17LT011_091317_LOB_06_TA	244	
SVE-01	9/13/2017	SVE-01_17LT011_091317_LOB_07_TA	343	
SVE-01	9/13/2017	SVE-01_17LT011_091317_LOB_08_TA	468	
SVE-01	9/13/2017	SVE-01_17LT012_091317_LOB_09_TA	433	
SVE-01	9/13/2017	SVE-01_17LT012_091317_LOB_10_TA	165	
SVE-01	9/13/2017	SVE-01_17LT012_091317_LOB_11_TA	167	
SVE-01	9/13/2017	SVE-01_17LT013_091317_LOB_12_TA	279	
SVE-01	9/13/2017	SVE-01_17LT013_091317_LOB_13_TA	291	
SVE-01	9/13/2017	SVE-01_17LT013_091317_LOB_14_TA	533	
SVE-01	9/13/2017	SVE-01_17LT013_091317_LOB_15_TA	290	
SVE-01	9/13/2017	SVE-01_17LT013_091317_LOB_16_TA	526	
SVE-01	9/13/2017	SVE-01_17LT014_091317_LOB_17_TA	574	
SVE-01	9/13/2017	SVE-01_17LT014_091317_LOB_18_TA	390	
SVE-01	9/13/2017	SVE-01_17LT014_091317_LOB_19_TA	260	
SVE-01	9/15/2017	SVE-01_17LT043_091517_LOB_20_TA	168	
CJ	9/13/2017	CJ_17LT001_091317_LOB_01_TA	154	
CJ	9/13/2017	CJ_17LT001_091317_LOB_02_TA	149	
CJ	9/13/2017	CJ_17LT001_091317_LOB_03_TA	407	
CJ	9/13/2017	CJ_17LT001_091317_LOB_04_TA	231	
CJ	9/13/2017	CJ_17LT001_091317_LOB_05_TA	212	
CJ	9/13/2017	CJ_17LT002_091317_LOB_06_TA	267	
CJ	9/13/2017	CJ_17LT002_091317_LOB_07_TA	216	
CJ	9/13/2017	CJ_17LT003_091317_LOB_08_TA	193	
CJ	9/13/2017	CJ_17LT003_091317_LOB_09_TA	573	
CJ	9/13/2017	CJ_17LT003_091317_LOB_10_TA	386	
CJ	9/13/2017	CJ_17LT004_091317_LOB_11_TA	229	
CJ	9/13/2017	CJ_17LT004_091317_LOB_12_TA	925	
CJ	9/15/2017	CJ_17LT044_091517_LOB_19_TA	120	
CJ	9/15/2017	CJ_17LT044_091517_LOB_20_TA	183	
CJ	9/15/2017	CJ_17LT047_091517_LOB_15_TA	291	
CJ	9/15/2017	CJ_17LT047_091517_LOB_16_TA	358	
CJ	9/15/2017	CJ_17LT047_091517_LOB_17_TA	457	
CJ	9/15/2017	CJ_17LT047_091517_LOB_18_TA	114	
CJ	9/15/2017	CJ_17LT048_091517_LOB_13_TA	151	
CJ	9/15/2017	CJ_17LT048_091517_LOB_14_TA	150	
L9-45	9/13/2017	L9-45_17LT015_091317_LOB_01_TA	317	J
L9-45	9/13/2017	L9-45_17LT015_091317_LOB_02_TA	549	
L9-45	9/13/2017	L9-45_17LT015_091317_LOB_03_TA	139	
L9-45	9/13/2017	L9-45_17LT015_091317_LOB_04_TA	359	
L9-45	9/13/2017	L9-45_17LT015_091317_LOB_05_TA	257	
L9-45	9/13/2017	L9-45_17LT015_091317_LOB_06_TA	263	
L9-45	9/13/2017	L9-45_17LT015_091317_LOB_07_TA	384	
L9-45	9/13/2017	L9-45_17LT015_091317_LOB_08_TA	591	
L9-45	9/13/2017	L9-45_17LT016_091317_LOB_09_TA	65.6	
L9-45	9/13/2017	L9-45_17LT016_091317_LOB_10_TA	272	

Appendix C-8
2017 Lobster Tail Analytical Results

2017 Biota Monitoring Report
Penobscot River

		Parameter Name:	Mercury	
		Analytic Method:	EPA 1631	
		Units:	ng/g	
Location ID	**Sample Date**	**Sample ID**	**Result**	**Qual.**
L9-45	9/13/2017	L9-45_17LT016_091317_LOB_11_TA	120	
L9-45	9/13/2017	L9-45_17LT016_091317_LOB_12_TA	247	
L9-45	9/13/2017	L9-45_17LT016_091317_LOB_13_TA	220	
L9-45	9/13/2017	L9-45_17LT016_091317_LOB_14_TA	286	
L9-45	9/13/2017	L9-45_17LT017_091317_LOB_15_TA	223	
L9-45	9/13/2017	L9-45_17LT017_091317_LOB_16_TA	179	
L9-45	9/13/2017	L9-45_17LT017_091317_LOB_17_TA	114	
L9-45	9/13/2017	L9-45_17LT017_091317_LOB_18_TA	177	
L9-45	9/13/2017	L9-45_17LT018_091317_LOB_19_TA	117	
L9-45	9/13/2017	L9-45_17LT018_091317_LOB_20_TA	240	
HB-01	9/13/2017	HB-01_17LT019_091317_LOB_01_TA	74.2	
HB-01	9/13/2017	HB-01_17LT021_091317_LOB_02_TA	99.8	
HB-01	9/13/2017	HB-01_17LT022_091317_LOB_03_TA	123	
HB-01	9/13/2017	HB-01_17LT022_091317_LOB_04_TA	66.3	
HB-01	9/13/2017	HB-01_17LT022_091317_LOB_05_TA	62.7	
HB-01	9/13/2017	HB-01_17LT023_091317_LOB_06_TA	64.8	
HB-01	9/15/2017	HB-01_17LT034_091517_LOB_07_TA	184	
HB-01	9/15/2017	HB-01_17LT034_091517_LOB_08_TA	149	
HB-01	9/15/2017	HB-01_17LT034_091517_LOB_09_TA	82.8	
HB-01	9/15/2017	HB-01_17LT036_091517_LOB_10_TA	113	
HB-01	9/15/2017	HB-01_17LT036_091517_LOB_11_TA	123	
HB-01	9/15/2017	HB-01_17LT036_091517_LOB_12_TA	83.3	
HB-01	9/15/2017	HB-01_17LT036_091517_LOB_13_TA	85.6	
HB-01	9/15/2017	HB-01_17LT049_091517_LOB_14_TA	108	
HB-01	9/15/2017	HB-01_17LT049_091517_LOB_15_TA	50.3	
HB-01	9/15/2017	HB-01_17LT050_091517_LOB_16_TA	138	
HB-01	9/15/2017	HB-01_17LT052_091517_LOB_17_TA	59.4	
HB-01	9/15/2017	HB-01_17LT052_091517_LOB_18_TA	264	
HB-01	9/15/2017	HB-01_17LT052_091517_LOB_19_TA	85.9	
HB-01	9/15/2017	HB-01_17LT052_091517_LOB_20_TA	99.4	

Notes:
ng/g = nanograms per gram

Data Qualifier Definitions:
J = The detected concentration is considered estimated

Appendix C-9
2017 Mummichog Analytical Results

2017 Biota Monitoring Report
Penobscot River

		Parameter Name:	Mercury	
		Analytic Method:	EPA 1631	
		Units:	ng/g	
Location ID	**Sample Date**	**Sample ID**	**Result**	**Qual.**
FRB-01	9/12/2017	FRB-01_17SN001_091217_MUM_01_WB	5.17	
FRB-01	9/12/2017	FRB-01_17SN001_091217_MUM_02_WB	8.36	
FRB-01	9/12/2017	FRB-01_17SN001_091217_MUM_03_WB	5.05	
FRB-01	9/12/2017	FRB-01_17SN001_091217_MUM_04_WB	7.11	
FRB-01	9/12/2017	FRB-01_17SN001_091217_MUM_05_WB	7.57	
FRB-01	9/12/2017	FRB-01_17SN001_091217_MUM_06_WB	6.46	
FRB-01	9/12/2017	FRB-01_17SN001_091217_MUM_07_WB	7.7	
FRB-01	9/12/2017	FRB-01_17SN001_091217_MUM_08_WB	7.6	
FRB-01	9/12/2017	FRB-01_17SN001_091217_MUM_09_WB	6.16	
FRB-01	9/12/2017	FRB-01_17SN001_091217_MUM_10_WB	6.74	
FRB-01	9/12/2017	FRB-01_17SN001_091217_MUM_11_WB	6.7	
FRB-01	9/12/2017	FRB-01_17SN001_091217_MUM_12_WB	4.81	
FRB-01	9/12/2017	FRB-01_17SN001_091217_MUM_13_WB	5.65	
FRB-01	9/12/2017	FRB-01_17SN001_091217_MUM_14_WB	6.1	
FRB-01	9/12/2017	FRB-01_17SN001_091217_MUM_15_WB	5.08	
FRB-01	9/12/2017	FRB-01_17SN001_091217_MUM_16_WB	6.6	
FRB-01	9/12/2017	FRB-01_17SN001_091217_MUM_17_WB	5.85	
FRB-01	9/12/2017	FRB-01_17SN001_091217_MUM_18_WB	7.84	
FRB-01	9/12/2017	FRB-01_17SN001_091217_MUM_19_WB	6.53	
FRB-01	9/12/2017	FRB-01_17SN001_091217_MUM_20_WB	4.44	
BO-04	9/17/2017	BO-04_17SN001_091717_MUM_01_WB	63.4	
OB-05	9/15/2017	OB-05_17SN001_091517_MUM_01_WB	150	
OB-05	9/15/2017	OB-05_17SN001_091517_MUM_02_WB	114	
OB-05	9/15/2017	OB-05_17SN001_091517_MUM_03_WB	121	
OB-05	9/15/2017	OB-05_17SN001_091517_MUM_04_WB	117	
OB-05	9/15/2017	OB-05_17SN001_091517_MUM_05_WB	65.2	
OB-05	9/15/2017	OB-05_17SN001_091517_MUM_06_WB	76.5	
OB-05	9/15/2017	OB-05_17SN001_091517_MUM_07_WB	71.5	
OB-05	9/15/2017	OB-05_17SN001_091517_MUM_08_WB	77.6	
OB-05	9/15/2017	OB-05_17SN001_091517_MUM_09_WB	74.1	
OB-05	9/15/2017	OB-05_17SN001_091517_MUM_10_WB	74.6	
OB-05	9/15/2017	OB-05_17SN001_091517_MUM_11_WB	77.1	
OB-05	9/15/2017	OB-05_17SN001_091517_MUM_12_WB	80.8	
OB-05	9/15/2017	OB-05_17SN001_091517_MUM_13_WB	76.9	
OB-05	9/15/2017	OB-05_17SN001_091517_MUM_14_WB	81.3	
OB-05	9/15/2017	OB-05_17SN001_091517_MUM_15_WB	77.6	
OB-05	9/15/2017	OB-05_17SN001_091517_MUM_16_WB	65	
OB-05	9/15/2017	OB-05_17SN001_091517_MUM_17_WB	66.5	
OB-05	9/15/2017	OB-05_17SN001_091517_MUM_18_WB	69.9	
OB-05	9/15/2017	OB-05_17SN001_091517_MUM_19_WB	76.5	
OB-05	9/15/2017	OB-05_17SN001_091517_MUM_20_WB	62.6	

Appendix C-9
2017 Mummichog Analytical Results

2017 Biota Monitoring Report
Penobscot River

		Parameter Name:	Mercury	
		Analytic Method:	EPA 1631	
		Units:	ng/g	
Location ID	**Sample Date**	**Sample ID**	**Result**	**Qual.**
OB-01	9/18/2017	OB-01_17MT001_091817_MUM_01_WB	86.9	
OB-01	9/19/2017	OB-01_17MT001_091917_MUM_09_WB	79.6	
OB-01	9/19/2017	OB-01_17MT001_091917_MUM_10_WB	242	
OB-01	9/19/2017	OB-01_17MT001_091917_MUM_11_WB	83.4	
OB-01	9/19/2017	OB-01_17MT001_091917_MUM_12_WB	130	
OB-01	9/19/2017	OB-01_17MT001_091917_MUM_13_WB	127	
OB-01	9/18/2017	OB-01_17MT002_091817_MUM_02_WB	86.1	
OB-01	9/18/2017	OB-01_17MT002_091817_MUM_03_WB	103	
OB-01	9/18/2017	OB-01_17MT002_091817_MUM_04_WB	154	
OB-01	9/18/2017	OB-01_17MT002_091817_MUM_05_WB	110	
OB-01	9/18/2017	OB-01_17MT002_091817_MUM_06_WB	109	
OB-01	9/18/2017	OB-01_17MT002_091817_MUM_07_WB	37.4	
OB-01	9/18/2017	OB-01_17MT002_091817_MUM_08_WB	87.2	
OB-01	9/19/2017	OB-01_17MT002_091917_MUM_14_WB	237	
OB-01	9/19/2017	OB-01_17MT002_091917_MUM_15_WB	118	
MMMC-01	9/18/2017	MMMC-01_17MT001_091817_MUM_01_WB	51.4	
MMMC-01	9/20/2017	MMMC-01_17MT001_092017_MUM_02_WB	137	
MMMC-01	9/20/2017	MMMC-01_17MT003_092017_MUM_06_WB	109	
MMMC-01	9/20/2017	MMMC-01_17MT003_092017_MUM_07_WB	122	
MMMC-01	9/20/2017	MMMC-01_17MT003_092017_MUM_08_WB	107	
MMMC-01	9/20/2017	MMMC-01_17MT003_092017_MUM_09_WB	88.2	
MMMC-01	9/20/2017	MMMC-01_17MT003_092017_MUM_10_WB	207	
MMMC-01	9/20/2017	MMMC-01_17MT003_092017_MUM_11_WB	94.4	
MMMC-01	9/20/2017	MMMC-01_17MT003_092017_MUM_12_WB	73.2	
MMMC-01	9/20/2017	MMMC-01_17MT003_092017_MUM_13_WB	104	
MMMC-01	9/20/2017	MMMC-01_17MT003_092017_MUM_14_WB	150	
MMMC-01	9/20/2017	MMMC-01_17MT003_092017_MUM_15_WB	145	
MMMC-01	9/20/2017	MMMC-01_17MT003_092017_MUM_16_WB	72.4	
MMMC-01	9/20/2017	MMMC-01_17MT003_092017_MUM_17_WB	136	
MMMC-01	9/20/2017	MMMC-01_17MT003_092017_MUM_18_WB	112	
MMMC-01	9/20/2017	MMMC-01_17MT003_092017_MUM_19_WB	100	
MMMC-01	9/20/2017	MMMC-01_17MT003_092017_MUM_20_WB	256	
MMMC-01	9/20/2017	MMMC-01_17MT004_092017_MUM_03_WB	173	
MMMC-01	9/20/2017	MMMC-01_17MT004_092017_MUM_04_WB	109	

Notes:
ng/g = nanograms per gram

Data Qualifier Definitions:
A data quality evaluation was performed on the data, no qualifiers were applied

Appendix C-10
2017 Rainbow Smelt Analytical Results

2017 Biota Monitoring Report
Penobscot River

		Parameter Name:	Mercury	
		Analytic Method:	EPA 1631	
		Units:	ng/g	
Location ID	**Sample Date**	**Sample ID**	**Result**	**Qual.**
FRB-01	9/12/2017	FRB-01_17SN001_091217_RAS_01_WB	18.1	
FRB-01	9/12/2017	FRB-01_17SN001_091217_RAS_02_WB	14.6	
FRB-01	9/12/2017	FRB-01_17SN001_091217_RAS_03_WB	6.88	
FRB-01	9/12/2017	FRB-01_17SN001_091217_RAS_04_WB	22.2	
FRB-01	9/12/2017	FRB-01_17SN001_091217_RAS_05_WB	10.8	
FRB-01	9/12/2017	FRB-01_17SN001_091217_RAS_06_WB	14.5	
FRB-01	9/12/2017	FRB-01_17SN001_091217_RAS_07_WB	26.2	
FRB-01	9/12/2017	FRB-01_17SN001_091217_RAS_08_WB	24.6	
FRB-01	9/12/2017	FRB-01_17SN001_091217_RAS_09_WB	8.2	
FRB-01	9/12/2017	FRB-01_17SN001_091217_RAS_10_WB	10.6	
FRB-01	9/12/2017	FRB-01_17SN001_091217_RAS_11_WB	10.9	
FRB-01	9/12/2017	FRB-01_17SN001_091217_RAS_12_WB	6.57	
FRB-01	9/12/2017	FRB-01_17SN001_091217_RAS_13_WB	9.38	
FRB-01	9/12/2017	FRB-01_17SN001_091217_RAS_14_WB	19	
FRB-01	9/12/2017	FRB-01_17SN001_091217_RAS_15_WB	7.29	
FRB-01	9/12/2017	FRB-01_17SN001_091217_RAS_16_WB	15.7	
FRB-01	9/12/2017	FRB-01_17SN001_091217_RAS_17_WB	12.2	
FRB-01	9/12/2017	FRB-01_17SN001_091217_RAS_18_WB	7.36	
FRB-01	9/12/2017	FRB-01_17SN001_091217_RAS_19_WB	7.98	
FRB-01	9/12/2017	FRB-01_17SN001_091217_RAS_20_WB	11.8	
OB-05	9/15/2017	OB-05_17SN001_091517_RAS_01_WB	72.1	
OB-05	9/15/2017	OB-05_17SN001_091517_RAS_02_WB	64.4	
OB-05	9/15/2017	OB-05_17SN001_091517_RAS_03_WB	83.5	
OB-05	9/15/2017	OB-05_17SN001_091517_RAS_04_WB	96.5	
OB-05	9/15/2017	OB-05_17SN001_091517_RAS_05_WB	83.9	
OB-01	9/16/2017	OB-01_17SN001_091617_RAS_01_WB	45.3	
OB-01	9/16/2017	OB-01_17SN001_091617_RAS_02_WB	36	
OB-01	9/16/2017	OB-01_17SN001_091617_RAS_03_WB	72	
OB-01	9/16/2017	OB-01_17SN001_091617_RAS_04_WB	77.4	
OB-01	9/16/2017	OB-01_17SN001_091617_RAS_05_WB	46.5	
OB-01	9/16/2017	OB-01_17SN001_091617_RAS_06_WB	39.7	
OB-01	9/16/2017	OB-01_17SN001_091617_RAS_07_WB	52.1	
OB-01	9/16/2017	OB-01_17SN001_091617_RAS_08_WB	42.7	
OB-01	9/16/2017	OB-01_17SN001_091617_RAS_09_WB	38.2	
OB-01	9/16/2017	OB-01_17SN001_091617_RAS_10_WB	47.5	
OB-01	9/16/2017	OB-01_17SN001_091617_RAS_11_WB	61.7	
OB-01	9/16/2017	OB-01_17SN001_091617_RAS_12_WB	42.5	

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2017 Rainbow Smelt Analytical Results

2017 Biota Monitoring Report
Penobscot River

		Parameter Name:	Mercury	
		Analytic Method:	EPA 1631	
		Units:	ng/g	
Location ID	**Sample Date**	**Sample ID**	**Result**	**Qual.**
OB-01	9/16/2017	OB-01_17SN001_091617_RAS_13_WB	49.8	
OB-01	9/16/2017	OB-01_17SN001_091617_RAS_14_WB	49.6	
OB-01	9/16/2017	OB-01_17SN001_091617_RAS_15_WB	45.3	
OB-01	9/16/2017	OB-01_17SN001_091617_RAS_16_WB	49.2	
OB-01	9/16/2017	OB-01_17SN001_091617_RAS_17_WB	46.9	
OB-01	9/16/2017	OB-01_17SN001_091617_RAS_18_WB	44.8	
OB-01	9/16/2017	OB-01_17SN001_091617_RAS_19_WB	47.8	
OB-01	9/16/2017	OB-01_17SN001_091617_RAS_20_WB	45.3	
ES-13	9/14/2017	ES-13_17SN001_091417_RAS_01_WB	30.7	
ES-13	9/14/2017	ES-13_17SN001_091417_RAS_02_WB	87.8	J
ES-13	9/14/2017	ES-13_17SN001_091417_RAS_03_WB	42.2	
ES-13	9/14/2017	ES-13_17SN001_091417_RAS_04_WB	35.5	
ES-13	9/14/2017	ES-13_17SN001_091417_RAS_05_WB	29.9	
ES-13	9/14/2017	ES-13_17SN001_091417_RAS_06_WB	76.7	
ES-13	9/14/2017	ES-13_17SN001_091417_RAS_07_WB	78.8	
ES-13	9/14/2017	ES-13_17SN001_091417_RAS_08_WB	32.7	
ES-13	9/14/2017	ES-13_17SN001_091417_RAS_09_WB	26.4	
ES-13	9/14/2017	ES-13_17SN001_091417_RAS_10_WB	37.4	
ES-13	9/14/2017	ES-13_17SN001_091417_RAS_11_WB	37.5	
ES-13	9/14/2017	ES-13_17SN001_091417_RAS_12_WB	29.8	
ES-13	9/14/2017	ES-13_17SN001_091417_RAS_13_WB	63.1	
ES-13	9/14/2017	ES-13_17SN001_091417_RAS_14_WB	43.5	
ES-13	9/14/2017	ES-13_17SN001_091417_RAS_15_WB	39.1	
ES-13	9/14/2017	ES-13_17SN001_091417_RAS_16_WB	34.8	
ES-13	9/14/2017	ES-13_17SN001_091417_RAS_17_WB	56.6	
ES-13	9/14/2017	ES-13_17SN001_091417_RAS_18_WB	40.2	
ES-13	9/14/2017	ES-13_17SN001_091417_RAS_19_WB	38.1	
ES-13	9/14/2017	ES-13_17SN001_091417_RAS_20_WB	30.1	
ES-FP	9/14/2017	ES-FP_17SN001_091417_RAS_01_WB	78.6	
ES-FP	9/14/2017	ES-FP_17SN001_091417_RAS_02_WB	92.6	
ES-FP	9/14/2017	ES-FP_17SN001_091417_RAS_03_WB	68.2	
ES-FP	9/14/2017	ES-FP_17SN001_091417_RAS_04_WB	174	
ES-FP	9/14/2017	ES-FP_17SN001_091417_RAS_05_WB	92.2	
ES-FP	9/14/2017	ES-FP_17SN001_091417_RAS_06_WB	83.2	
ES-FP	9/14/2017	ES-FP_17SN001_091417_RAS_07_WB	207	
ES-FP	9/14/2017	ES-FP_17SN001_091417_RAS_08_WB	128	
ES-FP	9/14/2017	ES-FP_17SN001_091417_RAS_09_WB	185	

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2017 Rainbow Smelt Analytical Results

2017 Biota Monitoring Report
Penobscot River

			Parameter Name:	Mercury
			Analytic Method:	EPA 1631
			Units:	ng/g
Location ID	**Sample Date**	**Sample ID**	**Result**	**Qual.**
ES-FP	9/14/2017	ES-FP_17SN001_091417_RAS_10_WB	156	
ES-FP	9/14/2017	ES-FP_17SN001_091417_RAS_11_WB	75.7	
ES-FP	9/14/2017	ES-FP_17SN001_091417_RAS_12_WB	43	
ES-FP	9/14/2017	ES-FP_17SN001_091417_RAS_13_WB	36.6	
ES-FP	9/14/2017	ES-FP_17SN001_091417_RAS_14_WB	39	
ES-FP	9/14/2017	ES-FP_17SN001_091417_RAS_15_WB	34.2	
ES-FP	9/14/2017	ES-FP_17SN001_091417_RAS_16_WB	52	
ES-FP	9/14/2017	ES-FP_17SN001_091417_RAS_17_WB	34.1	
ES-FP	9/14/2017	ES-FP_17SN001_091417_RAS_18_WB	42.5	
ES-FP	9/14/2017	ES-FP_17SN001_091417_RAS_19_WB	31.7	
ES-FP	9/14/2017	ES-FP_17SN001_091417_RAS_20_WB	43.6	

Notes:
ng/g = nanograms per gram

Data Qualifier Definitions:
J = The detected concentration is considered estimated

Appendix C-11
2017 Eel Analytical Results

2017 Biota Monitoring Report
Penobscot River

		Parameter Name:	Mercury		Lipids	
		Analytic Method:	EPA 1631		NOAA Lipids 1993	
		Units:	ng/g		%	
Location ID	Sample Date	Sample ID	Result	Qual.	Result	Qual.
OV-04	6/9/2017	OV-04_17ET015_060917_EEL_01_WB	306		2.5	
OV-04	7/28/2017	OV-04_17ET628_072817_EEL_02_WB	320		10	
OV-04	7/28/2017	OV-04_17ET628_072817_EEL_03_WB	176		2.0	
OV-04	7/28/2017	OV-04_17ET628_072817_EEL_04_WB	161		17	
OV-04	7/28/2017	OV-04_17ET628_072817_EEL_05_WB	153		4.6	
OV-04	7/28/2017	OV-04_17ET628_072817_EEL_06_WB	142		9.3	
BO-04	6/5/2017	BO-04_17ET002_060517_EEL_01_WB	389		9.5	
BO-04	6/5/2017	BO-04_17ET002_060517_EEL_02_WB	1320		12	
BO-04	6/5/2017	BO-04_17ET002_060517_EEL_03_WB	732		8.8	
BO-04	6/5/2017	BO-04_17ET003_060517_EEL_04_WB	430		1.2	
BO-04	6/5/2017	BO-04_17ET004_060517_EEL_05_WB	391		4.4	
BO-04	6/5/2017	BO-04_17ET005_060517_EEL_06_WB	422		3.3	
BO-04	6/5/2017	BO-04_17ET009_060517_EEL_07_WB	643		3.1	
BO-04	6/5/2017	BO-04_17ET012_060517_EEL_08_WB	488		6.7	
BO-04	6/5/2017	BO-04_17ET015_060517_EEL_09_WB	485		0.78	
BO-04	6/5/2017	BO-04_17ET015_060517_EEL_10_WB	540		2.6	
BO-04	6/5/2017	BO-04_17ET015_060517_EEL_11_WB	483		1.2	
BO-04	6/5/2017	BO-04_17ET015_060517_EEL_12_WB	589		9.6	
BO-04	6/5/2017	BO-04_17ET015_060517_EEL_13_WB	519		0.41	
BO-04	6/5/2017	BO-04_17ET015_060517_EEL_14_WB	648		8.6	
BO-04	6/5/2017	BO-04_17ET015_060517_EEL_15_WB	489		3.9	
BO-04	6/5/2017	BO-04_17ET016_060517_EEL_16_WB	604		7.7	
BO-04	6/5/2017	BO-04_17ET016_060517_EEL_17_WB	493		4.2	
BO-04	6/5/2017	BO-04_17ET017_060517_EEL_18_WB	679		1.4	
BO-04	6/5/2017	BO-04_17ET018_060517_EEL_19_WB	294		0.7	
BO-04	6/5/2017	BO-04_17ET020_060517_EEL_20_WB	386		2.0	
OB-05	6/6/2017	OB-05_17ET141_060617_EEL_12_WB	234		0.42	
OB-05	6/6/2017	OB-05_17ET141_060617_EEL_13_WB	201		0.35	
OB-05	6/6/2017	OB-05_17ET141_060617_EEL_14_WB	277		1.7	
OB-05	6/6/2017	OB-05_17ET141_060617_EEL_15_WB	124		5.8	
OB-05	6/6/2017	OB-05_17ET141_060617_EEL_16_WB	110		5.5	
OB-05	6/6/2017	OB-05_17ET141_060617_EEL_17_WB	80		4.7	
OB-05	6/6/2017	OB-05_17ET141_060617_EEL_18_WB	116		6.5	
OB-05	6/6/2017	OB-05_17ET141_060617_EEL_19_WB	303		2.8	
OB-05	6/6/2017	OB-05_17ET141_060617_EEL_20_WB	221		10	
OB-05	6/5/2017	OB-05_17ET100_060517_EEL_01_WB	468		1.8	
OB-05	6/5/2017	OB-05_17ET100_060517_EEL_02_WB	322		1.6	
OB-05	6/5/2017	OB-05_17ET100_060517_EEL_03_WB	293		4.6	
OB-05	6/5/2017	OB-05_17ET101_060517_EEL_10_WB	528		6.6	
OB-05	6/5/2017	OB-05_17ET101_060517_EEL_11_WB	316		0.44	
OB-05	6/5/2017	OB-05_17ET104_060517_EEL_08_WB	249		5.3	
OB-05	6/5/2017	OB-05_17ET104_060517_EEL_09_WB	417		6.9	
OB-05	6/5/2017	OB-05_17ET110_060517_EEL_06_WB	224		4.1	
OB-05	6/5/2017	OB-05_17ET110_060517_EEL_07_WB	92.1		2.8	
OB-05	6/5/2017	OB-05_17ET111_060517_EEL_04_WB	706		0.97	
OB-05	6/5/2017	OB-05_17ET111_060517_EEL_05_WB	381		1.0	

Notes:
ng/g = nanograms per gram

Data Qualifier Definitions:
A data quality evaluation was performed on the data, no qualifiers were applied

Appendix C-12
2017 Atlantic Tomcod Analytical Results

2017 Biota Monitoring Report
Penobscot River

		Parameter Name:	Mercury	
		Analytic Method:	EPA 1631	
		Units:	ng/g	
Location ID	**Sample Date**	**Sample ID**	**Result**	**Qual.**
BO-04	9/17/2017	BO-04_17ET008_091717_TOM_01_WB	104	
BO-04	9/17/2017	BO-04_17ET010_091717_TOM_02_WB	148	
BO-04	9/17/2017	BO-04_17ET014_091717_TOM_03_WB	123	
BO-04	9/20/2017	BO-04_17ET025_092017_TOM_04_WB	152	
BO-04	9/20/2017	BO-04_17ET026_092017_TOM_05_WB	199	J
BO-04	9/20/2017	BO-04_17ET030_092017_TOM_06_WB	224	
BO-04	9/20/2017	BO-04_17ET035_092017_TOM_07_WB	173	
BO-04	9/20/2017	BO-04_17ET041_092017_TOM_08_WB	162	
OB-05	9/17/2017	OB-05_17ET002_091717_TOM_01_WB	268	
OB-05	9/17/2017	OB-05_17ET002_091717_TOM_02_WB	139	
OB-05	9/18/2017	OB-05_17ET002_091817_TOM_16_WB	71.9	
OB-05	9/17/2017	OB-05_17ET003_091717_TOM_03_WB	70.7	
OB-05	9/17/2017	OB-05_17ET003_091717_TOM_04_WB	122	
OB-05	9/18/2017	OB-05_17ET003_091817_TOM_17_WB	173	
OB-05	9/18/2017	OB-05_17ET003_091817_TOM_18_WB	152	
OB-05	9/18/2017	OB-05_17ET005_091817_TOM_19_WB	78.4	
OB-05	9/18/2017	OB-05_17ET008_091817_TOM_20_WB	72.7	
OB-05	9/17/2017	OB-05_17ET009_091717_TOM_05_WB	379	
OB-05	9/17/2017	OB-05_17ET010_091717_TOM_06_WB	99.8	
OB-05	9/17/2017	OB-05_17ET011_091717_TOM_07_WB	90.7	
OB-05	9/17/2017	OB-05_17ET012_091717_TOM_08_WB	230	
OB-05	9/17/2017	OB-05_17ET012_091717_TOM_09_WB	118	
OB-05	9/17/2017	OB-05_17ET013_091717_TOM_10_WB	227	
OB-05	9/17/2017	OB-05_17ET013_091717_TOM_11_WB	124	
OB-05	9/17/2017	OB-05_17ET014_091717_TOM_12_WB	103	
OB-05	9/17/2017	OB-05_17ET014_091717_TOM_13_WB	159	
OB-05	9/17/2017	OB-05_17ET014_091717_TOM_14_WB	126	
OB-05	9/17/2017	OB-05_17ET014_091717_TOM_15_WB	315	
OB-01	9/16/2017	OB-01_17ET001_091617_TOM_01_WB	274	
OB-01	9/16/2017	OB-01_17ET001_091617_TOM_02_WB	382	
OB-01	9/16/2017	OB-01_17ET001_091617_TOM_03_WB	389	
OB-01	9/16/2017	OB-01_17ET001_091617_TOM_04_WB	233	
OB-01	9/16/2017	OB-01_17ET001_091617_TOM_05_WB	190	
OB-01	9/16/2017	OB-01_17ET001_091617_TOM_06_WB	66	
OB-01	9/16/2017	OB-01_17ET001_091617_TOM_07_WB	308	

Appendix C-12
2017 Atlantic Tomcod Analytical Results

2017 Biota Monitoring Report
Penobscot River

			Parameter Name:	Mercury
			Analytic Method:	EPA 1631
			Units:	ng/g
Location ID	**Sample Date**	**Sample ID**	**Result**	**Qual.**
OB-01	9/16/2017	OB-01_17ET001_091617_TOM_08_WB	413	
OB-01	9/16/2017	OB-01_17ET001_091617_TOM_09_WB	78.7	
OB-01	9/16/2017	OB-01_17ET002_091617_TOM_10_WB	205	
OB-01	9/16/2017	OB-01_17ET002_091617_TOM_11_WB	70	
OB-01	9/16/2017	OB-01_17ET002_091617_TOM_12_WB	49.7	
OB-01	9/16/2017	OB-01_17ET003_091617_TOM_13_WB	231	
OB-01	9/16/2017	OB-01_17ET004_091617_TOM_14_WB	50.1	
OB-01	9/16/2017	OB-01_17ET004_091617_TOM_15_WB	81.1	
OB-01	9/16/2017	OB-01_17ET004_091617_TOM_16_WB	77.3	
OB-01	9/16/2017	OB-01_17ET005_091617_TOM_17_WB	65.7	
OB-01	9/16/2017	OB-01_17ET006_091617_TOM_18_WB	136	
OB-01	9/16/2017	OB-01_17ET007_091617_TOM_19_WB	160	
OB-01	9/16/2017	OB-01_17ET008_091617_TOM_20_WB	182	
ES-13	9/18/2017	ES-13_17ET717_091817_TOM_11_WB	172	
ES-13	9/18/2017	ES-13_17ET718_091817_TOM_02_WB	114	
ES-13	9/18/2017	ES-13_17ET719_091817_TOM_03_WB	52.8	
ES-13	9/18/2017	ES-13_17ET719_091817_TOM_04_WB	36	
ES-13	9/18/2017	ES-13_17ET719_091817_TOM_05_WB	45.5	
ES-13	9/18/2017	ES-13_17ET719_091817_TOM_06_WB	32.7	
ES-13	9/18/2017	ES-13_17ET722_091817_TOM_07_WB	52.2	
ES-13	9/18/2017	ES-13_17ET722_091817_TOM_08_WB	60.2	
ES-13	9/18/2017	ES-13_17ET723_091817_TOM_09_WB	239	
ES-13	9/18/2017	ES-13_17ET723_091817_TOM_10_WB	209	
ES-13	9/13/2017	ES-13_17LT012_091317_TOM_01_WB	226	
ES-FP	9/15/2017	ES-FP_17ET658_091517_TOM_01_WB	37.2	

Notes:
ng/g = nanograms per gram

Data Qualifier Definitions:
J = The detected concentration is considered estimated