Georgetown Harbor, South Carolina Project

Supplemental Environmental Assessment

Appendix C: Sediment Testing Report

U.S. Army Corps of Engineers
Charleston District

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Contents

2025 Sediment Sampling and Analysis Report

SEDIMENT SAMPLING AND ANALYSIS REPORT GEORGETOWN HARBOR, SOUTH CAROLINA

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ACRONYMS, ABBREVIATIONS & INITIALISMS

AET	apparent effects threshold
CCV	continuing calibration verification
CMC	criteria maximum concentration
CoC	chain of custody
DDT	Dichlorodiphenyltrichloroethane
DQCR	Daily Quality Control Report
DU	dredging unit
ECD	electron capture detectors
EDL	estimated detection limit
ELCD	electrolytic conductivity detectors
EPA, USEPA	U.S. Environmental Protection Agency
ERL	effects range-low
GPS	global positioning system
HR/MS	High Resolution Mass Spectroscopy
HSP/APP	Health and Safety Plan/Accident Prevention Plan
ICP	inductively coupled plasma
ITM	Inland Testing Manual (*Evaluation of Dredged Material for Discharge in Waters of the U.S. – Testing Manual*. EPA and USACE 1998)
LCS	laboratory control sample
LMW	low molecular weight
MDL	method detection limit
MLLW	mean lower low water
MRL	method reporting limit
MS	matrix spike
NOAA	National Oceanic and Atmospheric Administration
PAH	polynuclear aromatic hydrocarbon
PCB	polychlorinated biphenyl
QA/QC	quality assurance/quality control
QAPP	Quality Assurance Project Plan
RL	Reporting Limit
R/V	Research Vessel
SAP	Sampling and Analysis Plan
SCES	South Carolina Department of Environmental Services
TDL	target detection limit
TEF	toxicity equivalency factor
TEL	threshold effects level
TEQ	toxic equivalent
TOC	total organic carbon
USACE	U.S. Army Corps of Engineers
USCS	Unified Soil Classification System

EXECUTIVE SUMMARY

This report details the field sampling, analysis, and results of sediment testing and analysis in support of maintenance dredging operations in Georgetown Harbor, South Carolina. Field operations took place from January 28, 2025, through January 31, 2025, and consisted of sediment and water sample collection for physical, sediment chemistry, and elutriate chemistry analysis.

Sampling Approach

The project area is located in Georgetown Harbor, SC. The field sample collection effort involved collection of sediment vibracore samples from 20 sampling locations and site water from one location. Sample IDs, coordinates, and required analyses for proposed sediment sampling stations were provided by USACE, based on recent bathymetric surveys, and provided adequate representation for each area.

Seven composite samples were analyzed (six plus one split). Three to four sediment subsamples were combined into each composite sample for physical, sediment chemistry, and elutriate chemistry analysis. All sediment samples were collected by vibracore.

Sediment Physical Results

Physical analysis was conducted for all project sediment composites and subsamples. Grain size results in the composite samples ranged from 1.2% to 26.4% sand, and 73.2% to 98.8% fines. Specific gravity ranged from 2.51 to 2.62, with the liquid limit for Atterberg Limits ranging from 163 to 234. Complete results are provided in Tables 3 and 4 and include both subsample and composite physical analysis.

Sediment Chemistry Results

Full sediment chemistry analyses were performed on all project composite samples.

TOC and Total Solids

TOC concentrations ranged from 46,000 mg/kg in sample GT25-SR-6 to 61,000 mg/kg in sample GT25-SM-2. Total solids ranged from 24.4% to 34.7%. Table 5 has complete results for TOC and total solids, including the laboratory MDLs and MRLs.

Metals and Tributyltin

Metals and tributyltins were analyzed in all composite samples. Most metals were detected in concentrations greater than the MRL in all sediment samples, with the exception of antimony, mercury, and silver which were not detected above the MRL in any composite (selenium was only detected above MRL in one composite sample). Most other metals were detected at or above the TEL and (or) ERL, where applicable. Due to low total solids, the MDL for tributyltin exceeded the target detection limits for five of the seven composite samples. Table 5 has complete results, including the laboratory MDLs and MRLs.

PAHs

PAHs were analyzed in all composite samples. Table 6 has complete results, including the laboratory MDLs and MRLs. In samples GT25-SM-1, GT25-SM-2, GT25-BP-3, and GT25-SR-6, most PAHs were not detected in concentrations greater than the MDL, and none exceeded the TEL or ERL. Samples GT25-BP-4, GT25-CC-5, and GT25-FS-7 reported more PAHs above

MDLs, GT25-BP-4 had five exceedances above the TEL and (or) ERL, and GT25-CC-5 had 1 exceedance.

Pesticides

Pesticides were analyzed in all composite samples. Five pesticide compounds were detected in concentrations above the MRL, and 4,4' DDT was in exceedance of the TEL and ERL in samples GT25-SM-1, GT25-CC-5, and GT25-SR-6. Four of the sediment composites had not detected pesticide compounds above the method reporting limits. No other pesticides in other samples exceeded the TEL or ERL. Total pesticides ranged from 0.15 µg/kg to 21 µg/kg. There are no published sediment screening criteria (i.e., TEL, ERL) for total pesticides. Complete results are provided in Table 7, including the laboratory MDLs and MRLs.

PCBs

PCBs and Aroclors were analyzed in all composite samples. Seven of the 26 congeners and one of the seven Aroclors were detected above the MDL in at least one of the composite samples. Only samples GT25-SM-1 and GT25-SM-2 consisted of all non-detects. Total EPA Region 4 PCBs and Total National Oceanic and Atmospheric Administration (NOAA) PCBs did not exceed the TEL and ERL. Complete results are provided in Table 8, including the laboratory MDLs and MRLs.

Dioxins and Furans

Dioxins and furans were analyzed in all composite samples. The TEQ of each congener was calculated using the TEF multiplied by either the determined concentration of the dioxin/furan congener or one half the EDL if the result was reported as a non-detect. The total TEQ was calculated in two ways to address non-detected values. The first included the value of the TEQ for non-detected concentrations and the second did not include the TEQ for non-detected values. Both values are shown in the tables. Total TEQs ranged from 5.1 ng/kg to 10.8 ng/kg for both EDL for non-detected values and for detected values. Complete results are provided in Table 9, including the laboratory EDLs and MRLs.

Elutriate and Site Water Chemistry

Full elutriate chemistry analyses for both total and dissolved samples were performed on all composite and site water samples with the exception of the field split sample.

Metals, TOC, and Total Suspended Solids

Total and dissolved metals were analyzed in all composite elutriate samples and the site water sample.

TOC concentrations in the elutriate samples for both the total and dissolved fractions ranged from 18 mg/L to 41 mg/L. Results for each composite elutriate sample were similar for both the total and dissolved fractions. Total suspended solids ranged from 14 mg/L to 620 mg/L. Table 10 has complete results for TOC and total solids, including the laboratory MDLs and MRLs.

Trace metals were either non-detect or below the corresponding screening criteria, with only copper sample GT25-BP-3 exceeding the South Carolina CMC level. Tributyltins are reported as non-detects across all elutriate samples. All MDLs for metals and tributyltin met the target detection limits with the exception of zinc. Table 10 has complete results, including the laboratory MDLs and MRLs.

PAHs

Total and dissolved PAHs were analyzed in all composite elutriate samples and the site water sample. The MDLs and MRLs for the elutriate and site water sample met the TDL and MRL in Table 2-8 of the SAP/QAPP. Results for all PAH compounds were below the target detection limits, with the highest concentration of all detected compound at 1.2 ug/L for naphthalene in sample GT24-CC-5 total. None of the PAH compounds have a corresponding screening level. Table 11 has complete results, including the laboratory MDLs and MRLs.

Pesticides

Total and dissolved pesticides were analyzed in all composite elutriate samples and the site water sample. The MDLs and MRLs for the elutriate and the site water sample met the TDL and MRLs in Table 2-8 of the SAP/QAPP. Table 12 has complete results, including the laboratory MDLs and MRLs. All laboratory MDLs met the corresponding TDL.

PCBs

Total and dissolved PCBs and Aroclors were analyzed in all composite elutriate samples and the site water sample. The MDLs and MRLs for the elutriate and site water sample met the TDL and MRLs in Table 2-8 of the SAP/QAPP. With the exception of Aroclor 1248 in sample GT25-SR-6, all results for congeners and Aroclors were below the MDLs and the TDL. Table 13 has complete results, including the laboratory MDLs and MRLs.

Dioxins and Furans

Total and dissolved dioxins were analyzed in all composite elutriate samples and the site water sample. The TEQ of each congener was calculated using the TEF (USEPA 2010) multiplied by either the determined concentration of the dioxin/furan congener or the MRL if the result was below the MRL. The total TEQ was calculated in two ways to address non-detected values. The first included one half the value of the TEQ for non-detected concentrations and the second did not include the TEQ for non-detected values. Both values are shown in the tables. Total TEQs ranged from 0.31 pg/L to 22.1 pg/L using the EDL for non-detected values and from 0.23 pg/L to 15.3 pg/L for detected values. There are no screening criteria to compare results against. Complete results are provided in Table 14, including the laboratory EDLs and MRLs.

1 INTRODUCTION

1.1 Project Area Description

The U.S. Army Corps of Engineers (USACE) Charleston District is responsible for performing periodic maintenance dredging in Georgetown Harbor, South Carolina. The currently planned dredging depth in Georgetown Harbor is -12 feet mean lower low water (MLLW) with 2 feet of allowable overdepth dredging; however, future maintenance dredging may require deeper dredging in some parts of the channel. Therefore, sediment testing depths for this project targeted depths suitable for characterization of disturbance zone for potential future dredging efforts. The dredged material is pumped into nearby upland confined placement areas (PAs). This report summarizes the results from the sampling and analysis effort involving collection of sediment and elutriate samples from locations in Georgetown Harbor. Map 1 provides an overview of the project area and sampling locations.

1.2 Objectives

The objective of this sediment evaluation is to determine compliance with the *Evaluation of Dredged Material for Discharge in Waters of the U.S. – Testing Manual* (ITM) (EPA and USACE 1998) and the South Carolina Department of Environmental Services (SCES) quality control requirements. Specific objectives are to:

- Provide a detailed Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP) for approval before sampling and analysis work begins (ANAMAR, 2024).
- Collect the required number and volume of sediment samples from the project area that are representative of proposed dredge material and with sufficient positioning accuracy to ensure that samples are collected from within the dredging locations.
- Conduct sediment and elutriate analyses following the testing requirements set forth in the SAP/QAPP.
- Provide a report to USACE that describes the field sampling effort and presents the results of the physical/chemical analysis of sediment, elutriates, and site water. The report should provide the basis for a scientific recommendation regarding the management of these dredge materials.

Deliverables for this work include:

- Draft and Final SAP/QAPP
- Health and Safety Plan/Accident Prevention Plan (HSP/APP)
- Draft and Final Sediment Testing Report
- Laboratory data reports
- Field paperwork to include the Daily Quality Control Reports (DQCRs)
- Photos of samples and field operations

ANAMAR coordinated and directed operations for this project and worked closely with USACE to develop a sampling and analysis scheme, schedule, and deliverables. ANAMAR also reviewed all data and produced this report summarizing the results of the physical and chemical testing of project sediment, elutriate, and site water samples. Exhibits 1-1 and 1-2 indicate the principal users of data, the subcontractors, and their respective areas of responsibility associated with this evaluation.

Exhibit 1-1. Principal Data Users and Decisions Associated with this Project

Agency or Company	Area(s) of Responsibility
USACE, Charleston District	Provide contracting support; provide technical input regarding the scope of work and project deliverables
SCES, Bureau of Water	Water quality certification of dredged sediment for upland placement per Section 401 of the Clean Water Act

Exhibit 1-2. Prime and Subcontractors and Responsibilities Associated with this Report

Company and Contact Information	Area(s) of Responsibility
Prime Contractor: ANAMAR Environmental Consulting, Inc Project Manager: Tiffany Trent 13146 NW 86th Drive, Suite I-200 Alachua, FL 32615-6087 Phone: 352-318-5773 ttrent@anamarinc.com	Prepare project deliverables, lead the field sampling effort, coordinate with the labs, manage the project
Vessel Operator: Athena Technologies Project Manager: Adam Freeze 1293 Graham Farm Road McClellanville, SC 29458 Phone: 843-887-3800 Email: adam_freeze@athenatechnologies.com	Provide vessel for sampling; provide crew to captain vessel and operate sampling equipment
Chemistry Laboratory: Eurofins TestAmerica (Burlington) Project Manager: Carrie Gamber 530 Community Drive #11, South Burlington, VT 05403 Phone:802-660-1990 Email: Carrie.Gamber@et.eurofinsus.com	Laboratory sample preparation and chemical analysis of site water organotins
Chemistry Laboratory: Eurofins TestAmerica (Pittsburgh) Project Manager: Carrie Gamber 301 Alpha Drive Pittsburgh, PA 15238 Phone: 412-963-2428 Email: Carrie.Gamber@et.eurofinsus.com	Laboratory sample preparation and chemical and physical analysis of sediment, site water, and elutriates; sample holding and archiving

2 MATERIALS AND METHODS

2.1 Project Design and Rationale

The SAP/QAPP was prepared by ANAMAR and approved by USACE (Appendix A). The SAP/QAPP details the sampling design and rationale, analyses to be performed, and reporting requirements. The project area is located in Georgetown Harbor and is divided into six dredging units (DUs). The field sample collection efforts involved collecting sediment vibracore samples from 20 sampling locations and site water from a single location. Sampling locations were selected by USACE based on shoaling depths according to recent bathymetric surveys and were distributed to provide adequate representation for each geographic area in the Georgetown Harbor.

Seven composite samples were analyzed (six DUs plus one split). Three to four sediment subsamples were combined into each composite sample for physical, chemical, and elutriate analysis. The sample IDs, compositing scheme, and general analytical requirements are summarized in Exhibit 2-1. Summaries of field sampling materials and methods and specific analytes of interest are provided in Exhibits 2-2 and 2-3, respectively. Coordinates of the sampled locations are provided in Tables 1 and 2, and the locations are shown in Map 1.

Exhibit 2-1. Sample IDs, Compositing Scheme, and Analytical Requirements

Sample ID	Composite ID	Required Analysis[1]	
		Subsamples	Composite Samples
Steel Mill Channel			
GT25-SM-1A	GT24-SM-1	Physical	Physical plus Full Suite Chemical
GT25-SM-1B		Physical	
GT25-SM-1C		Physical	
GT25-SM-2A	GT24-SM-2	Physical	Physical plus Full Suite Chemical
GT25-SM-2B		Physical	
GT25-SM-2C		Physical	
Bypass Channel			
GT25-BP-3A	GT24-BP-3	Physical	Physical plus Full Suite Chemical
GT25-BP-3B		Physical	
GT25-BP-3C		Physical	
GT25-BP-4A	GT24-BP-4	Physical	Physical plus Full Suite Chemical
GT25-BP-4B		Physical	
GT25-BP-4C		Physical	
GT25-BP-4D		Physical	
[2]GT25-7	GT25-7	Physical	Physical plus Full Suite Chemical

Sample ID	Composite ID	Required Analysis[1]	
		Subsamples	Composite Samples
Connector Channel			
GT25-CC-5A	GT24-CC-5	Physical	Physical plus Full Suite Chemical
GT25-CC-5B		Physical	
GT25-CC-5C		Physical	
Sampit River Channel			
GT25-SR-6A	GT24-SR-6	Physical	Physical plus Full Suite Chemical
GT25-SR-6B		Physical	
GT25-SR-6C		Physical	
GT25-SR-6D		Physical	
GT25-SW	N/A	Full Suite Chemical	

[1] See Tables 2-6 through 2-8 in the SAP-QAPP for specific chemical and physical analysis requirements.
[2] GT25-SF-7 is a field split of GT25-BP4.

Exhibit 2-2. Summary of Field Sampling Materials and Methods

FIELD SAMPLE COLLECTION:
- 7 project sediment composites (composed of 3 to 4 samples each [*N* = 20])
- 1 site water sample for water chemistry and elutriate preparation

SAMPLING GEAR:
- Sediment samples collected with vibracore (see section 2.2.5 for more details)
- Site water collected with pneumatic stainless steel pump

VESSEL:
- R/V *Artemis* (30-foot pontoon barge)

PRESERVATION:
- Sediment chemistry and water samples were kept at or below 4°C
- Water samples in various containers, with or without stabilizing agents, were kept at or below 4°C
- Holding-time requirements were analyte- and test-specific

IN SITU WATER COLUMN MEASUREMENTS:
- YSI multiprobe meter
- Hach 2100P turbidimeter

Exhibit 2-3. Analytical Scheme

	Sample	Georgetown Subsamples	Steel Mill Composites	Bypass Channel Composites	Connector Channel Composites	Sampit Channel Composites	Georgetown Site Water Sample
Physical Analysis	Hydrometer Grain Size	Y	Y	Y	Y	Y	--
	Specific Gravity	Y	Y	Y	Y	Y	--
	Total solids	Y	Y	Y	Y	Y	--
	Atterberg Limits	Y	Y	Y	Y	Y	--
Sediment Chemistry	TOC	--	Y	Y	Y	Y	--
	Metals	--	Y	Y	Y	Y	--
	PAHs	--	Y	Y	Y	Y	--
	Pesticides	--	Y	Y	Y	Y	--
	PCB Congeners	--	Y	Y	Y	Y	--
	PCB Aroclors	--	Y	Y	Y	Y	--
	Dioxins/Furans	--	Y	Y	Y	Y	--
	Tributyltin	--	Y	Y	Y	Y	--
Elutriate/Water Chemistry*	TOC	--	Y	Y	Y	Y	Y
	TSS	--	Y	Y	Y	Y	Y
	Metals	--	Y	Y	Y	Y	Y
	PAHs	--	Y	Y	Y	Y	Y
	Pesticides	--	Y	Y	Y	Y	Y
	PCB Congeners	--	Y	Y	Y	Y	Y
	PCB Aroclors	--	Y	Y	Y	Y	Y
	Dioxins/Furans	--	Y	Y	Y	Y	Y
	Tributyltin	--	Y	Y	Y	Y	Y

* Elutriates were prepared using the modified elutriate preparation method. Elutriates and background site water chemistry samples were analyzed for total and dissolved fractions.

2.2 Sample Collection Techniques

2.2.1 Field Effort

Mobilization, field sampling, processing, and shipping took place from January 27, 2025 through February 3, 2025. Field personnel consisted of scientists from ANAMAR and Athena Technologies. Athena provided the vessel R/V *Artemis*. Since all sampling locations were within 2 miles of each other, the team was able to meet and mobilize at Hazzard Marine, Georgetown, SC for all sampling days. Sediment and water samples were stored in a refrigerated truck, kept with an average temperature of 3.3°C. There were brief periods when the temperature rose up to 7°C as the team loaded new samples but fell immediately following resealing. Exhibit 2-4 is a summary of the field mobilization, sampling, processing, and shipping efforts. For more details, refer to the sampling logs, refrigerated truck temperature logs, and DQCRs in Appendix B.

Exhibit 2-4. Field Sampling Activities

Date	General Activity
27-Jan-2025	• Mobilize to Georgetown. Drop off mixing barrel at Athena headquarters in McClellanville for sample processing later in the week • Buy field food and drinks for the week • Review sampling plan and logistics with team
28-Jan-2025	• Mobilize to boat ramp at Hazzard Marine, SC • Collect samples GT25-SR-6A through 6D; GT25-BP-3A through 3C; GT25-BP-4A through 4D
29-Jan-2025	• Mobilize to boat ramp at Hazzard Marine, SC • Collect samples GT25-SM-1A through 1C; GT25-SM-2A through 2C; GT25-CC-5A through 5C.
30-Jan-2025	• Mobilize to Hazzard Marine, SC • Collect water sample GT25-SW • Mobilize to Athena Headquarters and begins sediment sample processing • Travel to Mt Pleasant, SC to ship organotin water samples to Eurofins, Burlington VT
31-Jan-2025	• Mobilize to Athena headquarters • Complete chains of custody (CoCs) and double check all packaging • Received confirmation that organotins had arrived in good condition and within temperature range at Eurofins in Burlington, VT • Two team members traveled back to Gainesville, FL. One team member stayed behind the weekend with the refrigerated truck to insure it ran over the weekend
3-Feb-2025	• One team member transferred remaining water and sediment samples to Air and Surface Logistics approximately 9 am to be delivered to Eurofins in Pittsburgh, PA. Physical samples were sent by Eurofins in Pittsburgh, PA to Eurofins in Burlington, VT. • Team member traveled back to Gainesville, FL with the refrigerated truck

2.2.2 Site Positioning

Sampling station locations were chosen by USACE to coincide with the dredging prism and were based on the most recent data from a bathymetric survey. Stations sampled are shown in Map 1.

Target coordinates were uploaded to a Panasonic Toughbook computer CF-31 with Hypack® software and associated Trimble R12i Global Navigation Satellite System with Trimble RTX virtual reference station network on Athena's vessel as well as on a Garmin Montana hand-held global positioning system (GPS) (used as a backup unit). Coordinates were uploaded in both GPS units and reviewed and compared with the original coordinates to verify positioning prior to field sampling. All samples were taken within 20 feet of the target station. Navigation and positioning of the vessel was handled by a U.S. Coast Guard-certified captain under direction of the ANAMAR project manager or field team leader.

Coordinates of each station were recorded in the field with Athena's Trimble RTX. Tables 1 and 2 summarize field data as recorded on field sheets during sampling.

2.2.3 Decontamination Procedures

All equipment contacting sediment or water samples was cleaned and decontaminated as described below. Work surfaces on the sampling vessel were cleaned before the sampling day began and before leaving each station. All equipment contacting sediment or water samples was decontaminated between composite samples to prevent cross-contamination. Disposable nitrile gloves used at a given sampling station were replaced with new gloves prior to sampling at the next station. Since sampling sites were so close together, deconned equipment was not wrapped in aluminum foil between sites.

Decontamination Procedures

- Wash and scrub using site water or tap water to remove gross contamination
- Wash/scrub with Alconox detergent
- Rinse with site water
- Rinse with deionized water
- Rinse 2 times with pesticide-grade isopropanol
- Rinse 3 times with deionized water
- Rinse 2 times with pesticide-grade hexane (for dioxin analysis)
- Rinse 3 times with deionized water

Any waste derived was contained and disposed of in accordance with federal, state, and local laws.

2.2.4 Water Column Measurements

A YSI multiprobe meter and a Hach® 2100P turbidimeter were used to measure water column parameters at the two site water stations. Meters were calibrated each day prior to use according to manufacturer's instructions. An end-of-day reading was also taken to document that the instrument remained calibrated within acceptance criteria. Measured water column parameters and associated data consisted of:

- Time of reading (24 hour time scale in EST)
- Depth of measurement (feet)
- Water temperature (°C)
- pH (units)
- Salinity (parts per thousand)
- Conductivity (µS/cm)
- Dissolved oxygen (mg/L and percent saturation)
- Turbidity (NTU, near-surface only)

Water depth measurements, tidal cycle, and weather observations were recorded on water sampling logs and are summarized in Table 2. Water column measurements and instrument calibration logs are in Appendix B.

2.2.5 Sediment Sampling with Vibracore

Athena used their 30-foot *Artemis* pontoon vessel for the sampling effort. The vibracore system consisted of a generator with a mechanical vibrator attached via cable to a 4-inch-diameter,

decontaminated, stainless steel sample barrel. The sample barrel was lowered to the sediment surface and the vibracore machine was turned on and the sample barrel was allowed to penetrate until it reached target depth. The sample barrel was then retrieved using an electric winch. Once the sample barrel was on deck, the length of the core recovered was measured to determine if acceptable recovery was achieved. Then, the sediment was extruded into a decontaminated stainless steel bin, or directly into a Teflon®-lined bucket if the volume collected was less than 6 gallons. The coring process was repeated at each sample location within the DU. Given the low volume requirements of this project and the high percentage of recovery, only a single core was collected at each station.

After the sediment was collected, a photograph of the material was taken and notes on the sample's appearance and characteristics were recorded on a project-specific field log. Using decontaminated stainless steel utensils (e.g., spoons, scrapers) and disposable nitrile gloves, a physical sample was collected in a 1-gallon Ziplock™ bag and secured in a separate bucket. The remaining sample was transferred to a Teflon®-lined bucket, where it was sealed, labeled, and later transferred to the refrigerated truck.

Table 1 provides additional information on vibracore sampling. Copies of the field logs for vibracore sampling are provided in Appendix B. It should be noted that a minor miscalculation occurred at site GT25-BP-3C. Field samplers calculated the top of core elevation to be 7.5 ft, when it should have been 7.1 ft. This resulted in a core penetration target of 9.5 ft when it should have been 9.9 ft. However, the recovery length was 9.5 ft, a 96% recovery value, and well within the acceptable range of 75%.

2.2.6 Water Sampling

Site water for elutriate preparation was collected from a single station using a Teflon® pneumatic pump attached to a Nitrile®-lined hose. All equipment contacting sampled water was decontaminated prior to use. The suction hose was lowered through the water column. A stainless steel weight was attached to the end of the hose with stainless steel cable to allow the hose to hang approximately 3 feet above the sediment bottom. Another section of Viton® hose was attached to the discharge nozzle of the pump. Pressurized air was allowed to enter the pump, which drove a diaphragm that pushed water through the tubing. An air-pressure valve was used to adjust flow. Site water was containerized in 28 2.5 gallon cube containers provided by Eurofins for elutriate analysis.

Site water for chemistry analysis was collected at the same site using a submersible pump attached to a Nitrile®-lined hose. All equipment contacting sampled water was decontaminated prior to use. The suction hose was lowered through the water column. A stainless steel weight was attached to the end of the hose with stainless steel cable to allow the hose to hang approximately 3 feet above the sediment bottom. Pressurized air was allowed to enter the pump, which drove a diaphragm that pushed water through the tubing and into a 2.5 gallon cube container provided by Eurofins. After the 2.5 gallon cube container was full, a peristaltic pump attached to a Nitrile®-lined hose was used to fill pre-cleaned, pre-preserved glass and plastic bottles provided by the laboratory.

All water samples were placed in ice-filled coolers for storage at or below 4°C. The water sampling location is shown on the overview map. Water sampling dates and times, station coordinates, and related information are included in Table 2. Copies of water sampling logs are in Appendix B.

2.2.7 Sample Processing and Shipping

All compositing and homogenization activities were conducted by ANAMAR and Athena personnel as samples were collected in the field in accordance with the scheme presented in Subsection 2.1. Sediment compositing took place at Athena headquarters on January 30th. Following compositing and homogenizing, appropriate volumes of each composite were divided and placed in method-specific, pre-cleaned, pre-labeled containers provided by the laboratory (for chemical analysis) or plastic bags (for physical analysis). Once composited the samples were placed in coolers in the refrigerated truck.

The first set of samples (organotins) was shipped from FedEx in Mount Pleasant, SC, to Eurofins TestAmerica in Burlington, VT, on January 30th for next day delivery. The remaining samples were kept in a refrigerated truck over the weekend and monitored by an ANAMAR employee. On the night of February 2nd, all coolers were iced, sealed with chains of custody (CoCs), picked up by Air and Surface Logistics on February 3rd, and delivered to the Eurofins Environment Testing Northeast facility in Pittsburgh, PA on February 4th.

CoC records for each laboratory were completed to reflect the final sample names and to identify the analyses and analytical methods required. These CoC forms accompanied the samples during shipment to the laboratories. Copies of final signed CoC forms are included in the laboratory reports (Appendices C and D). All samples arrived within their respective holding times and temperature requirements.

2.3 Physical and Chemical Analytical Procedures

2.3.1 Physical Procedures

Eurofins Environment Testing Northeast performed physical analyses of all sediment samples. ANAMAR performed quality assurance/quality control (QA/QC) on sediment physical data and presented the data in summary tables.

Grain Size Distribution

Gradation tests were performed in general accordance with methods ASTM D-422 and ASTM D-1140. Each representative sample was air-dried and dry-prepped in accordance with method ASTM D-421, and results of the sieve analysis of material larger than a #10 sieve (2.00-mm mesh size) were determined. The minus #10 sieve material was then soaked in a dispersing agent. Following the soaking period, the sample was placed in a mechanical stirring apparatus and then in a sedimentation cylinder where hydrometer readings were taken over a 24-hour period. After the final hydrometer reading was taken, the sample was washed over a #200 sieve (0.075-mm mesh size), placed in an oven, and dried to a constant weight. After drying, the sample was sieved over a nest of sieves to determine the gradation of the material greater than #200 sieve size. Cumulative frequency percentages were graphed and presented by Eurofins on USACE Form 2087 (Appendix C). ANAMAR tabulated the grain size distribution by sample and composite.

Atterberg Limits

Tests for liquid and plastic limits for the composites and the reference were performed in general accordance with ASTM D-4318, wet method, as follows. The minus #40 sieved material was mixed with a small amount of water and placed in a liquid limit device. A groove was cut at the bottom using a flat grooving tool and the liquid limit was determined by the number of drops in the cup. When the number of drops was in the desired range, a moisture sample was obtained and placed in a 230°C oven and dried to a constant weight. This was repeated until three determinations had been obtained: one between 15 and 25 blows, one between 20 and 30 blows, and one between 25 and 35 blows. The reported value is the intersecting value at 25 blows when all three are plotted.

The plastic limit was determined by slowly air-drying a small sample left over from the liquid limit determination. The sample was rolled and air-dried until the thread became crumbly and lacked cohesion. When this point was reached, the sample was laced in a tare and weighed and then placed in an oven and dried to a constant weight. The moisture content is the plastic limit.

Specific Gravity

Specific gravity was determined for the composites and the reference in general accordance with method ASTM D-854. Each sample was placed in a mechanical stirring device and deionized water was added to form a slurry. The slurry was then transferred to a pycnometer and was de-aired by applying a vacuum. After vacuuming, the pycnometer with sample was allowed to reach thermal equilibrium. The water level was adjusted to a calibration mark and the pycnometer with sample was weighed. After the pycnometer with sample weight was recorded, the sample was emptied into a drying container and placed in an oven until a constant dry mass of sediment solids was obtained.

2.3.2 Chemical Analytical Procedures

Eurofins Environment Testing Northeast performed all chemical analyses of sediment, water, and elutriate samples in accordance with published procedures. Analytical methods, preparation methods, method detection limits (MDLs), method reporting limits (MRLs), and Estimation Detection Limits (EDLs) for sediment, and water analyses are provided in Subsection 2.4.2 of the QAPP (Appendix A). ANAMAR performed QA/QC on these data and presented the data in summary tables. Complete laboratory reports are provided in Appendix D. Exhibit 2-5 provides a summary of analytical methods.

Exhibit 2-5. Summary of Methods and Equipment Used during Sediment and Elutriate Analysis

EPA Method	Instrument/ Procedure	Methodology Summary
6020 (trace metals)	ICP and ICP/MS for trace metals	Inductively coupled plasma (ICP) with or without mass spectrometry (MS) is applicable to the determination of sub-µg/L concentrations of a large number of elements in water samples and in waste extracts or digests. Acid digestion prior to filtration and analysis is required for aqueous samples, sediments, and tissues for which total (acid-leachable) elements are required.

EPA Method	Instrument/ Procedure	Methodology Summary
7470 (mercury in water)	Mercury Analyzer Cold Vapor Atomic Absorption (water)	Method 7470 is a cold-vapor atomic absorption procedure approved for determining the concentration of mercury in mobility-procedure extracts and aqueous wastes. All samples are subjected to an appropriate dissolution step before analysis.
7471 (mercury in sediment and tissues)	Mercury Analyzer Cold Vapor Atomic Absorption	Method 7471 is approved for measuring total mercury (organic and inorganic) in sediments and tissues. All samples are subjected to an appropriate dissolution step before analysis. If this dissolution procedure is not sufficient to dissolve a specific matrix type or sample, this method is not applicable for that matrix.
8081 (pesticides)	Gas Chromatograph	Method 8081 is used to determine the concentrations of various organochlorine pesticides in extracts from solid and liquid matrices using fused-silica, open-tubular capillary columns with electron capture detectors (ECD) or electrolytic conductivity detectors (ELCD). The compounds that can be run by this method may be determined by a single- or a dual-column analysis system.
8082 (PCB congeners)	Gas Chromatograph	Method 8082 is used to determine the concentrations of polychlorinated biphenyls (PCBs) as individual PCB congeners in extracts from solid, tissue, and aqueous matrices using open-tubular capillary columns with ECD or ELCD. The target compounds may be determined by a single- or dual-column analysis system.
8270 E (PAHs)	Gas Chromatograph/ Mass Spectrometer	This method is used to determine the concentration of semi-volatile/polynuclear aromatic hydrocarbon (PAH) organic compounds in extracts prepared from many types of solid matrices and water samples. Direct injection of a sample may be used in limited applications.
8290 (Dioxins and Furans)	High Resolution Mass Spectroscopy (HR/MS)	This method uses HR/MS to prepare and analyze sediment samples for dioxins and furans.
EPA 9060	Total Organic Carbon (TOC) Analyzer	Method EPA 9060 is used to determine the concentration of organic carbon in sediment by catalytic combustion or wet chemical oxidation. The carbon dioxide formed from this procedure is measured and is proportional to the TOC in the sample.
Krone et al. (1989)	Grignard Reaction/Gas Chromatograph/ Flame Photometric	This method refers to the Grignard reaction, gas chromatograph, and flame photometric detection of di-n-butyltin, n-butyltin, and tri-n-butyltin cations in sediment, elutriates, and tissues. All samples are subjected to an extraction phase prior to analysis, and the concentration is determined using standard organic protocols.
SM2540D (Total Suspended Solids)	Electronic scale and oven	Elutriate or site water is filtered through a glass fiber filter and heated to 105° C until dried. The filter is then weighed on an electronic scale. The difference between the initial reading prior to filtration and the post filtration mass is used to determine the total suspended solids.

2.3.3 Eurofins Elutriate Procedures

This subsection summarizes Eurofins Elutriate Procedures. After a sample is received, verified, and logged, the sediment samples and site water are combined in a 4 to 20-liter glass cylinder with the sediment concentration equal to the average field inflow concentration (the default concentration is 150 grams of sediment /liter (dry weight basis)). Assuming anoxic conditions are not present at the sediment site, the sediment/water mixture is vigorously mixed for 1 hour via aeration. The mixture is then allowed to settle for a time period equal to the anticipated field mean retention time, or if not known, up to a maximum of 24 hours. The default time is 24 hours.

The supernatant (liquid phase) is siphoned off. The liquid phase in most samples is referred to as the clear or cloudy supernatant that is above the settled solids interface. On occasion, a third layer is observed that contains high suspended solids material. This fluidized layer may be contained in the liquid phase supernatant and can have a significant effect in constituent concentrations and reporting limits.

For the Modified Elutriate Test, an aliquot of the supernatant is analyzed for TSS. The remaining supernatant is divided. For the Total fraction, the preparation and/or determinative tests are performed directly on the supernatant. For the Dissolved fraction, the supernatant is centrifuged and filtered using 0.45 micron filters for analysis of dissolved concentrations of inorganic and conventional analysis, such as metals, sulfide, nitrogen, nitrate-nitrite, ammonia, phosphorus, salinity, pH, hardness and conductivity. Samples to be analyzed for dissolved organics such as pesticides, polychlorinated biphenyl (PCB), semivolatiles, volatiles, dioxins/furans and PAH's, materials must be free of particles but should not be filtered, due to the tendency for these materials to adsorb on the filter. A complete guide to this process can be found in Appendix D.

2.4 Data Reduction and Applicable Technical Quality Standards

Raw field and laboratory data were summarized and compiled into tables. Map 1 is used to associate the results spatially with respect to sampling locations.

2.4.1 Sediment Chemistry

Laboratory analytical results for sediment samples are compared to published sediment screening values as appropriate. These levels are the threshold effects level (TEL) and the effects range low (ERL). TEL represents the concentration below which adverse effects are expected to occur only rarely. ERL is the value at which toxicity may begin to be observed in sensitive species (Buchman 2008). Dioxin and furan results are compared to the TEL and the apparent effects threshold (AET). These comparisons are for reference use only and are not intended for regulatory decision-making.

2.4.2 Elutriate and Site Water Chemistry

Results of elutriate and water sample analyses were compared to the latest published water quality criteria of criteria maximum concentration (CMC [synonymous with 'acute']) established for both the U.S. Environmental Protection Agency (EPA) and the State of South Carolina. The CMC is an estimate of the highest concentration of a pollutant in saltwater to which an aquatic community can be exposed briefly without resulting in an unacceptable effect (EPA 2015, Buchman 2008). Where applicable, the South Carolina criteria are either equal to or slightly higher than the national criteria.

2.4.3 Deviation from Original Elutriate Generation

This subsection describes some limiting factors and solutions concerning the elutriate generation that were discovered by Eurofins lab. On February 13, 2025, ANAMAR received an email from Eurofins lab describing sediment shortages on samples GT25-BP-4 (4 liters short) and GT25-FS-7 (1 liter short) to generate the full suite of analyses with the method detection limits (MDLs) described in the SAP/QAPP. Both sediment samples were below the required amount needed for elutriate generation due to unusually high levels of moisture (>70%). ANAMAR scheduled a meeting with Eurofins that day, during which Eurofins staff communicated that GT25-CC-5 was also short on its sediment requirement by approximately 400 mL due to high levels of moisture. Eurofins had originally requested 4 gallons of each composite sample and ANAMAR sent between 5-6 gallons of each composite sample. Eurofins noted that the high moisture levels were unusual and not something they had anticipated, and ANAMAR field staff did not note any unusually high moisture contents when the samples were being collected and processed (e.g. extra soupy or watery samples).

Samples GT25-BP-4 and GT25-FS-7

ANAMAR met with Eurofins lab managers and discussed possible solutions to mitigate the sediment shortages. Since GT25-FS-7 was a split sample of GT25-BP-4 (the two are the same sample), it was suggested that GT25-FS-7 be combined with GT25-BP-4 in order to get the full suite of analyses for GT25-BP-4 without compromising MDL levels or sacrificing whole tests. However, this would leave the remaining elutriate for GT25-FS-7 only able to test for either the total fraction or the dissolved fraction tests. Based on guidance from USACE, the project team recommended that the dissolved fraction on the GT25-FS-7 sample be analyzed, and the total fraction be eliminated.

Sample GT25-CC-5

For sample GT25-CC-5, the laboratory generated required volume (1000 mL) each for organic PCB Aroclors and pesticides analyses for both total and dissolved fractions. The detection limits for these analytes are much lower than those required by SCES (see Exhibit 2-6 below). The recommended option discussed with the laboratory and the USACE team was to take 500 mL from the 1000 mL volume generated for PCB aroclors/pesticides total fraction and use it for the inorganic analyses (metals, total dissolved solids, and dissolved organic carbon). The 1000 mL allotted for the dissolved fraction would be used to run the dissolved fraction of PCB aroclors and pesticides at the laboratory MDLs, as planned. The remaining 500 mL would be allotted to the total fraction of PCB aroclors and pesticides would also be run, but at a 2X dilution factor, which would elevate the MDLs for the total fraction slightly but would still meet the SC DHEC required detection limit listed in Table 2-8 in the SAP/QAPP. See Appendix 7 for a table highlighting the new MDL at 2x the dilution for total fraction (Georgetown Elutriate Volume Memo 021425 Final or New MDL Table for GT25-CC-5).

USACE approved the above plans for samples GT25-BP-4, GT25-FS-7, and GT25-CC-5 on February 14, 2025, and Eurofins proceeded with the new test plan the same day. Documents, including emails and the official memo approved to the USACE, are included in Appendix F.

2.5 Reporting Limits

The sediment chemical concentration, MDL, and method reporting limit (MRL) were reported on a dry weight basis. The chemical concentration, MDL, and MRL for water and elutriates were reported as a liquid. The MDL refers to the minimum concentration of a given analyte that can be measured and reported with a 99% confidence level that the analyte concentration is greater than zero (40 CFR Part 136 Appendix B). The MRL refers to the minimum concentration at which the laboratory will report analytical chemistry data with confidence in quantitative accuracy of a given datum. Common laboratory procedures for defining an MRL include assigning it to a fixed factor above the MDL or by using the lowest calibration standard. MRLs are often adjusted by the laboratory for sample-specific parameters such as sample weight, percent solids, or dilution.

3 RESULTS AND DISCUSSION

3.1 Field Data

Conditions during the January 28 through January 30, 2025, field effort were acceptable for sampling. A summary of the vibracore sample collection is provided in Table 1. Water column parameters were recorded at one location and are summarized in Table 2.

3.2 Sediment Physical Results

Physical analysis was conducted for all project sediment composites and subsamples. Exhibit 3-1 summarizes grain size distribution and Unified Soil Classification System (USCS) soil classifications. Complete results of physical testing for subsamples and composite samples are presented in Tables 3 and 4. The laboratory report of physical analytical results using USACE Form 2087 is provided in Appendix C.

Exhibit 3-1. Percent Grain Size Distribution, USCS Classification, and Total Solids

Sample ID (Composites in Bold)	Grain Size Distribution[1] (percent by weight)		
	Gravel	Total Sand	Silt & Clay
GT25-SM-1A	0.0	3.8	96.2
GT25-SM-1B	0.0	2.2	97.8
GT25-SM-1C	0.0	1.9	98.1
GT25-SM-1	0.0	1.9	98.1
GT25-SM-2A	0.0	1.7	98.3
GT25-SM-2B	0.0	1.4	98.6
GT25-SM-2C	0.0	1.2	98.8
GT25-SM-2	0.0	1.2	98.8
GT25-BP-3A	0.0	2.0	98.0
GT25-BP-3B	0.0	1.2	98.8
GT25-BP-3C	0.0	0.9	99.1
GT25-BP-3	0.0	2.0	98.0
GT25-BP-4A	0.0	1.3	98.7
GT25-BP-4B	0.0	1.8	98.2
GT25-BP-4C	0.0	1.3	98.7
GT25-BP-4D	0.0	7.8	92.2
GT25-BP-4	0.0	1.4	98.6
GT25-CC-5A	0.0	2.4	97.6
GT25-CC-5B	0.0	2.5	97.5
GT25-CC-5C	1.2	5.6	93.2
GT25-CC-5	0.3	3.5	96.2
GT25-SR-6A	0.0	17.3	82.7
GT25-SR-6B	0.0	4.2	95.8
GT25-SR-6C	0.4	32.2	67.4

Sample ID (Composites in Bold)	Grain Size Distribution[1] (percent by weight)		
	Gravel	Total Sand	Silt & Clay
GT25-SR-6D	0.0	10.5	89.5
GT25-SR-6	0.0	3.1	96.9
GT25-7	0.4	26.4	73.2

[1] Particle sizes: gravel ≥4.750 mm, sand = 0.075–4.749 mm, silt & clay <0.075 mm.

[2] USCS classes defined: CH = clay of high plasticity; MH = silt of high plasticity, elastic silt; SC = clayey sand; SM = silty sand; SP = poorly graded sand.

See Tables 3 and 4 for complete physical analysis and total solids results for sediment composites.

It should be noted that there exists a noticeable difference in grain size between GT25-BP-4 and GT25-7 (a split sample of GT25-BP-4). GT25-7 has a total sand percentage of 26.4 while GT25-BP-4 has a total sand percentage of 1.4. While we can't account for this difference, we can speculate that perhaps directly after the mixing process, sand began to settle to the bottom of the mixing barrel. Since GT25-BP-4 was packaged in buckets first, it is likely that the buckets packaged directly after for GT25-7 contain more sand. These samples had a very watery consistency and high moisture content, making it difficult to observe any obvious sand settling. See photo GT25-BP-4&FS-7 in Appendix 6.

3.3 Sediment Chemistry

Analytical results for sediment chemistry are presented in Tables 5 through 9. Full sediment chemistry analyses were performed on all project composite samples. Analytical results were compared to published sediment screening criteria (i.e., TEL, ERL, AET), which are defined in Subsection 2.4.1. The laboratory report of sediment chemistry results is provided in Appendix D.

Sediment results are presented as dry weight concentrations, based on the initial sample results from method analysis, and then adjusted based on the total solids determined in the sample. Because of the very low total solids concentration as indicated below in Subsection 3.3.1 and Table 5, the sample concentrations, MDLs, and RLs were elevated by factor from 3 to 4. For numerous analytes this increase caused the MDLs and RLs to exceed the TDLs and the sample results to exceed the screening levels. A summary of the individual analytical groups is provided below and includes a discussion of these exceedances.

3.3.1 Total Organic Carbon and Total Solids

TOC concentrations ranged from 46,000 mg/kg in sample GT25-SR-6 to 61,000 mg/kg in sample GT25-SM-2. Total solids ranged from 24.4% to 34.7%. Table 5 has complete results for TOC and total solids, including the laboratory MDLs and MRLs.

3.3.2 Metals and Tributyltin

Metals and tributyltins were analyzed in all composite samples. Most metals were detected in concentrations greater than the MRL in all sediment samples, with the exception of antimony, mercury, and silver which were not detected above the MRL in any composite (selenium was only detected above MRL in one composite sample). Most other metals were detected at or above the TEL and (or) ERL, where applicable, in all samples and are summarized below in Exhibit 3-2. Tributyltin was not detected in concentrations above the MDL in any sample tested. Due to low total solids, the MDL for tributyltin exceeded the TDLs for five of the seven composite samples. Table 5 has complete results, including the laboratory MDLs and MRLs.

Exhibit 3-2. Summary of Analytical Results for Metals, TOC and Tributyltin in Sediment Composites

Analyte	Concentrations (mg/kg)								
	GT25-SM-1	GT25-SM-2	GT25-BP-3	GT25-BP-4	GT25-CC-5	GT25-SR-6	GT25-7	TEL	ERL
Antimony	0.24	0.34	0.31	0.47	0.49	0.28	0.45	x	x
Arsenic	**26**	**29**	**25**	**22**	**22**	**26**	**24**	7.24	8.2
Cadmium	0.17	0.15	0.20	**0.81**	**1.2**	0.11	**0.90**	0.676	1.2
Chromium	**73**	**81**	**77**	**87**	**85**	**66**	**97**	52.3	81
Copper	**26**	**29**	**33**	**35**	**32**	**24**	**37**	18.7	34
Lead	29.0	**33**	**33**	**50**	**78**	27	**60**	30.24	46.7
Mercury	0.10	0.093	0.095	0.10	0.11	0.079	0.11	0.13	0.15
Nickel	**27**	**29**	**28**	**27**	**26**	**24**	**30**	15.9	20.9
Selenium	1.1	1.2	1.0	1.0	0.81	0.93	1.0	x	x
Silver	ND	ND	ND	0.16	0.19	ND	0.21	0.730	1
Zinc	120	**140**	**160**	**750**	**830**	110	**650**	124	150
TOC	59,000	61,000	47,000	55,000	50,000	46,000	53,000	x	x
TBT	ND	ND	ND	ND	ND	ND	ND	x	x

Non-detect (ND) = The analyte was not detected at or above the MDL.
x = No TEL or ERL published for that parameter.
TBT = tributyltin
Bolded values exceed the TEL and (or) ERL.
See Table 5 for complete metals, TOC, and Tributyltin results for sediment composites.

3.3.3 PAHs

PAHs were analyzed in all composite samples and are summarized below in Exhibit 3-3. Table 6 has complete results, including the laboratory MDLs and MRLs. In samples GT25-SM-1, GT25-SM-2, GT25-BP-3, and GT25-SR-6, most PAHs were not detected in concentrations greater than the MDL, and none exceeded the TEL or ERL. Samples GT25-BP-4, GT25-CC-5, and GT25-FS-7 reported more PAHs above MDLs, and GT25-BP-4 had five exceedances above the TEL and (or) ERL, and GT25-CC-5 had one exceedance.

Based on the dry weight calculations, between five and 11 PAH compounds had elevated MDLs above the TDL, although most of the exceedances were small. In addition, the exceedances of the TEL and ERL limits were due to the elevated concentrations of the samples due to the low total solids.

Exhibit 3-3. Summary of Analytical Results for PAHs in Sediment Composites

Analyte	Concentrations (µg/kg)								
	GT25-SM-1	GT25-SM-2	GT25-BP-3	GT25-BP-4	GT25-CC-5	GT25-SR-6	GT25-7	TEL	ERL
Acenapthene	ND	ND	ND	ND	4.0	ND	ND	6.71	16
Acenapthylene	ND	ND	ND	ND	ND	ND	ND	5.87	44
Anthracene	ND	3.4	3.2	14	12	ND	ND	46.9	85.3
Benzo(a)anthracene	ND	ND	4.8	**110**	39	ND	14	74.8	261
Benzo(b)fluoranthene	3.0	4.6	5.4	72	59	ND	24	x	x
Benzo(k)flouranthene	ND	ND	ND	39	23	ND	9.1	x	x
Benzo(a)pyrene	ND	ND	ND	63	51	ND	15	88.8	430
Benzo(g,h,i)perylene	ND	ND	ND	35	47	ND	12	x	x
Chrysene	ND	ND	ND	**110**	60	ND	20	108	384
Dibenzo(a,h)anthracene	ND	ND	ND	**10**	**13**	ND	ND	6.22	63.4
Flourene	ND	ND	ND	ND	6.7	ND	ND	21.2	19
Flouranthene	4.9	7.1	6.3	**250**	57	3.0	27	113	600
Indeno(1,2,3-cd)pyrene	ND	ND	ND	33	35	ND	11	x	x
1-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	x	x
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	20.2	70
Napthalene	ND	ND	ND	ND	ND	ND	ND	34.6	160
Phenanthrene	ND	11	4.0	50	60	ND	6.9	86.7	240
Pyrene	6.8	8.8	11	**220**	84	ND	24	153	665
Total LMW PAHs	19	25	19	80	62	16	26	312	552
Total HMW PAHs	36	41	39	**763**	304	26	109	655	1700
Total PAHs	72	88	76	1025	533	56	194	1684	4022

"<" less-than symbol indicates the analyte concentration was less than the MDL (U-qualified; value indicates the MDL)
x = No TEL or ERL published for that parameter.
Bolded values exceed the TEL and (or) ERL.
HMW = high molecular weight; LMW = low molecular weight
See Table 6 for complete PAH results for sediment composites.

3.3.4 Pesticides

Pesticides were analyzed in all composite samples. Five of pesticide compounds were detected in concentrations above the MRL, and 4,4'-Dichlorodiphenyltrichloroethane (DDT) was in exceedance of the TEL and ERL in samples GT25-SM-1, GT25-CC-5, and GT25-SR-6. Four of the sediment composites had not detected pesticide compounds above the MRLs. No other pesticides in other samples exceeded the TEL or ERL.

Based on the dry weight calculations, technical chlordane and toxaphene had elevated MDLs above the target detection limit in six and seven samples, respectively. In addition, the laboratory stated in their case narrative that the sample matrix contained interferences which required diluting the samples during sample preparation.

Total pesticides ranged from 0.15 µg/kg to 21 µg/kg. There are no published sediment screening criteria (i.e., TEL, ERL) for total pesticides. Complete results are provided in Table 7, including the laboratory MDLs and MRLs.

3.3.5 PCBs and Aroclors

PCBs and Aroclors were analyzed in all composite samples. Seven of the 26 congeners and one of the seven aroclors were detected above the MDL in at least one of the composite samples. Only samples GT25-SM-1 and GT25-SM-2 consisted of all non-detects. Total EPA Region 4 PCBs and Total NOAA PCBs did not exceed the TEL and ERL.

The MDLs in the SAP/QAPP required detection limit for all PCB congeners (≤ 1 µg/kg) and Aroclors (≤ 3.3 µg/kg) were met. Complete results are provided in Table 8, including the laboratory MDLs and MRLs.

3.3.6 Dioxins and Furans

Given that they are present in such low quantities, results for dioxins are given in Estimated Detection Limits (EDLs), which are the lowest concentrations that a lab can reliably detect. The procedure for calculating EDLs for dioxins is described in https://www.epa.gov/sites/default/files/2015-07/documents/epa-8290a.pdf.

Dioxins and furans were analyzed in all composite samples. The toxic equivalent (TEQ) of each congener was calculated using the TEF (EPA 2010) multiplied by either the determined concentration of the dioxin/furan congener or the EDL if the result was below the MRL. The total TEQ was calculated in two ways to address non-detected values. The first included the value of the TEQ for both the detected concentrations and the non-detects (with ½ value of the EDL for the non-detects). The second just included the detected values. Both values are shown in the tables. Total TEQs ranged from 5.1 ng/kg to 10.8 ng/kg in both detected values, and in using one half the EDL for non-detected values. Complete results are provided in Table 9, including the laboratory EDLs and MRLs.

Based on the dry weight calculations, the individual dioxin isomers had elevated EDLs above the TDL in all samples. In addition, the results provided from the laboratory included the MDLs, while previous results have been reported from the estimated detection limit for dioxins.

3.4 Elutriate and Water Chemistry

Analytical results for elutriates generated from the composite samples and the site water samples are presented in Tables 10 through 14. All sediment samples were prepared using the modified elutriate preparation methods described in section 2.3.3. The modified elutriate analysis for total and dissolved fractions is prepared using one extraction. Half of the elutriate sample extraction is used for the total fraction analyses and the other half is centrifuged for organics and centrifuged and filtered for inorganics for the dissolved fraction analyses. The total and dissolved fractions for each sediment sample were analyzed for parameters shown in Table 2-6 of the SAP/QAPP.

In addition, one site water sample from the project area was analyzed to determine background levels for both the total and dissolved fractions of the analytes. Results for elutriate and water samples are compared to the CMC and South Carolina water quality criteria, which are addressed below as screening criteria and are defined in Subsection 2.4.2. The water and elutriate chemistry laboratory case narrative and data are provided in Appendix D.

Note that once samples were received at the laboratory, the project team determined that there was limited volume due to the total solids concentration of the sediment. Based on guidance obtained in a call with the USACE, the project team determined that sample GT25-SF-7 would be run for dissolved elutriate analysis only, and the total fraction would not be prepared. Since this sample was a field split for sample GT25-BP-4, the information provided from GT25-SF7 would have been for quality control purposes only. This is described in section 2.4.3.

3.4.1 Total Organic Carbon and Total Suspended Solids

Total and dissolved TOC and TSS were analyzed in all composite elutriate samples and the site water sample. Table 10 has complete results for TOC and TSS total and dissolved fractions, including the laboratory MDLs and MRLs.

Total TOC and TSS

TOC concentrations in the elutriate samples for total fractions ranged from 22 mg/L to 41 mg/L. Total suspended solids ranged from 350 mg/L to 620 mg/L.

Dissolved TOC and TSS

TOC concentrations in the elutriate samples for dissolved fractions ranged from 18 mg/L to 39 mg/L, similar to the total fractions. Total suspended solids are not measured for the dissolved fraction.

3.4.2 Metals and Tributyltin

Total and dissolved metals and tributyltin were analyzed in all composite elutriate samples and the site water sample. Results for both total and dissolved fractions are summarized in Exhibit 3-4. Table 10 has complete results, including the laboratory MDLs and MRLs.

Total Metals and Tributyltin

The majority of metal concentrations in elutriate samples for total fractions were either non-detect, or below the corresponding screening criteria. The only exception was copper, which exceeded both the CMC and SC CMC in all samples. All tributyltins are reported as non-detects. All MDLs for metals and tributyltin met the TDLs with the exception of zinc.

Dissolved Metal and Tributyltin

All metal concentrations in elutriate samples for dissolved fractions were either non-detect, or below the corresponding screening criteria. All tributyltins are reported as non-detects. All MDLs for metals and tributyltin met the TDLs with the exception of zinc.

Exhibit 3-4. Summary of Analytical Results for Metals in Sediment Elutriates and Site Water

Analyte	Concentrations (mg/kg)									
	GT25-SM-1 T/D	GT25-SM-2 T/D	GT25-BP-3 T/D	GT25-BP-4 T/D	GT25-CC-5 T/D	GT25-SR-6 T/D	GT25-7 D	GT25-SW T/D	SC CMC	CMC
Antimony	0.4/0.34	0.35/0.22	0.32/0.26	ND/0.3	ND/ND	0.64/0.67	0.20	0.22/ND	x	x
Arsenic	64/37	68/34	41/11	32/8.5	31/6.3	47/15	5.9	0.73/0.88	69	69
Cadmium	ND/ND	ND/ND	ND/ND	0.15/ND	ND/ND	ND/ND	ND	ND/ND	43	40
Chromium	29/4.8	22/0.84	24/ND	15/0.88	17/ND	36/0.73	ND	ND/ND	1100	1100
Copper	**9**/ND	**6.9**/0.59	**7.2**/0.38	**5.2**/1.1	**8.4**/ND	**9.6**/0.88	0.45	1.8/1.1	5.8	4.8
Lead	5.3/ND	3.9/ND	5.3/ND	9.5/ND	9.7/ND	5.3/ND	ND	0.38/ND	220	210
Mercury	ND/ND	ND/ND	ND/ND	ND/ND	ND/ND	ND/ND	ND	ND/ND	2.1	1.8
Nickel	8.8/0.81	6.6/0.5	6.8/ND	3.7/1	4.9/0.41	11/1.4	0.49	1.8/1.5	75	74
Selenium	0.76/0.48	0.53/0.36	0.56/0.34	0.34/0.47	0.38/0.39	0.7/0.58	0.29	ND/ND	290	290
Silver	ND/ND	ND/ND	ND/ND	ND/ND	ND/ND	ND/ND	ND	ND/ND	2.3	1.9
Zinc	46/4	38/ND	41/4.2	62/6.1	84/ND	53/ND	ND	ND/5.3	95	90
Tributyltin	ND/ND	ND/ND	ND/ND	ND/ND	ND/ND	ND/ND	ND/ND	ND/ND	0.37	0.42

T = total fraction; D = dissolved fraction; x = No TEL or ERL published for that parameter.
"<" less-than symbol = the analyte concentration was less than the MDL (U-qualified; value indicates the MDL)
Bolded values exceed the CMC. See Table 10 for complete results.

3.4.3 PAHs

Total and dissolved PAHs were analyzed in all composite elutriate samples and the site water sample. The MDLs and MRLs for the elutriate and site water sample met the TDLs and MRLs in Table 2-8 of the SAP/QAPP for both total and dissolved fractions. Table 11 has complete results for PAHS total and dissolved fractions, including the laboratory MDLs and MRLs.

Total PAHs

All PAH concentrations in total fractions were below the TDLs, with the highest concentration of all detected compounds at 1.2 ug/L for naphthalene in sample GT24-CC-5. None of the PAH compounds have a corresponding screening level.

Dissolved PAHs

All PAH concentrations in dissolved fractions were below the TDLs, with the highest concentration of all detected compounds at 0.34 µg/L for Acenaphthene^{LMW} in sample GT25-SR-6. None of the PAH compounds have a corresponding screening level.

3.4.4 Pesticides

Total and dissolved Pesticides were analyzed in all composite elutriate samples and the site water sample. The MDLs and MRLs for the elutriate and site water samples met the TDLs and MRLs in Table 2-8 of the SAP/QAPP for both total and dissolved fractions. Table 12 has complete results, including the laboratory MDLs and MRLs. All laboratory MDLs met the corresponding TDLs.

Total Pesticides

Most of the Pesticides in total fractions were non-detects, with the exceptions of p,p' (4,4')-DDD in samples GT25-SM-2 and GT25-BP-4, and p,p' (4,4')-DDT in samples GT25-SM-2 and GT25-BP-3. No concentrations exceeded their corresponding screening criteria.

It should be noted that the total pesticides for the site water sample (GT25-SW) needed to be re-extracted for total analysis, and the re-extraction was out of hold time. Results for the initial analysis of the site water sample analyzed within holding time are included in the laboratory report.

Dissolved Pesticides

Most of the Pesticides in dissolved fractions were non-detects, with the exception of p,p' (4,4')-DDT in samples GT25-SM-2 and GT25-BP-3. No concentrations exceeded their corresponding screening criteria.

3.4.5 PCB Congeners and Aroclors

Total and dissolved Pesticides were analyzed in all composite elutriate samples and the site water sample. The MDLs and MRLs for the elutriate and site water sample met the TDLs and MRLs in Table 2-8 of the SAP/QAPP for both total and dissolved fractions. Table 13 has complete results, including the laboratory MDLs and MRLs.

Total PCB Congeners and Aroclors

All of PCB Congeners and Aroclors in total fractions were non-detects.

Dissolved PCB Congeners and Aroclors

All PCB Congeners and Aroclors in dissolved fractions were non-detects with the exception of Aroclor 1248 in sample GT25-SR-6.

3.4.6 Dioxins and Furans

Given that they are present in such low quantities, results for dioxins are given in Estimated Detection Limits (EDLs), which are the lowest concentrations that a lab can reliably detect. The procedure for calculating EDLs for dioxins is described in https://www.epa.gov/sites/default/files/2015-07/documents/epa-8290a.pdf. Due to the high sensitivity of these reporting values, many dioxins are accompanied with a lab qualifier of 'B', signaling that these compounds were detected in the laboratory blank.

Dioxins and furans were analyzed in all composite samples. The toxic equivalent (TEQ) of each congener was calculated using the TEF (EPA 2010) multiplied by either the determined concentration of the dioxin/furan congener or the EDL if the result was below the MRL. The total TEQ was calculated in two ways to address non-detected values. The first included the value of the TEQ for both the detected concentrations and the non-detects (with ½ value of the EDL for the non-detects). The second just included the detected values. Both values are shown in the tables. Complete results are provided in Table 14, including the laboratory EDLs and MRLs.

Total Dioxins and Furans

All Dioxins and Furans were present in total fractions in at least one sample. Total TEQs ranged from 4.1 pg/L to 22.1 pg/L for detects and non-detects, and 4.0 pg/L to 22.1 pg/L for just the detected values. There are no screening criteria to compare results against. Laboratory EDLs met the TDL in all samples.

Dissolved Dioxins and Furans

All Dioxins and Furans were present in dissolved fractions in at least one sample with the exception of 2,3,7,8-TCDD. Total TEQs ranged from 0.3 pg/L to 4.5 pg/L for detects and non-detects, and 0.23 pg/L to 4.5 pg/L for just the detected values. There are no screening criteria to compare results against. Laboratory EDLs met the TDL in all samples.

Three total elutriate samples, GT25-SM-1, GT25-SM-2, and GT25-BP-3 required using less volume during preparation due to matrix effects in the samples. The MRLs for these samples were elevated by a factor of 10.

4 QUALITY ASSURANCE/QUALITY CONTROL

4.1 Field Sampling

Field sampling took place January 27 through January 30, 2025. There were no issues associated with field sample collection, and all sampling and compositing activities conformed to methods outlined in the SAP/QAPP.

4.2 Sample Receipt

4.2.1 Eurofins Environment Testing Northeast-Burlington, VT

Water samples testing for organotins were shipped overnight on January 30th, and were received on January 31st, at 10:30 am by Eurofins in Burlington VT, in good condition and consistent with the CoC form.

4.2.2 Eurofins Environment Testing Northeast-Pittsburgh, PA

Sediment samples and site water for background analysis and elutriate preparation were shipped on February 3rd, and were received at Eurofins in Pittsburg, PA at approximately 9:00 am on February 4th, in good condition and consistent with the accompanying CoC form.

All analyses were performed consistent with Eurofins TestAmerica QA program. This laboratory data report contains analytical results for samples designated for Tier II validation deliverables (Appendix D). When appropriate to the method, method blank results have been reported for each analytical test.

4.3 Physical Analysis

All physical analyses were performed by Eurofins TestAmerica and met all standard laboratory QC during testing.

4.4 Sediment Chemistry

4.4.1 Total Metals

No QC anomalies associated with the analysis of these samples were observed.

4.4.2 Organotins

MSs

Batch QC only is available for this project for tributyltin. MSs were not performed for the project samples.

No other QC anomalies associated with the analysis of these samples were observed.

4.4.3 Pesticides

MS Recoveries

The MS and spike duplicate were both outside acceptance criteria for 4,4'-DDT. All other spikes were acceptable. The spike recovery indicates that there may have been some level of the compound in the source sample that was not present in the spikes. Since the other spikes are within standard acceptance criteria, the impact appears to be limited to the single compound.

No other QC anomalies associated with the analysis of these samples were observed.

4.4.4 Polynuclear Aromatic Hydrocarbons

MSs

Batch quality control only is available for this project for PAHs. MSs were not performed for the project samples.

Laboratory Control Sample (LCS)

The LCS for PAHs was slightly below the laboratory acceptance criteria for fluoranthene. All other compounds had results within the laboratory acceptance criteria, so the overall impact is likely low to moderate for fluoranthene only. The recovery indicates a possible low bias in the sample results for this compound.

Please note that the results for the field split sample GT25-SF-7 had concentrations that were substantially different from the source sample, GT25-BP-4. All other analyses for these samples were similar. The most likely explanation would be that sample processing had some variance in the compounds that was determined during sample analysis.

No other QC anomalies associated with the analysis of these samples were observed.

4.4.5 PCBs

MSs

Spike recoveries for PCB 206 and PCB 209 were slightly below the laboratory acceptance criteria, but the relative percent difference was acceptable, indicating a possible matrix interference.

The spike recovery for the spike duplicate for Aroclors was outside the laboratory acceptance criteria, indicating the laboratory may have spiked the sample incorrectly. Since the matrix spike recoveries were acceptable, the over impact is low.

Continuing Calibration Verification (CCV)

The CCV recovered high and outside the control limits for PCB-77 on one column. Results are confirmed on both columns and hits were reported from the passing column. There is no impact related to this exceedance.

No other QC anomalies associated with the analysis of these samples were observed.

4.4.6 Dioxins and Furans by EPA Method 8290

No QC anomalies associated with the analysis of these samples were observed.

4.4.7 Total Organic Carbon

No QC anomalies associated with the analysis of these samples were observed.

4.5 Site Water and Elutriate Chemistry

4.5.1 Total Metals

MSs

Batch QC is only available for this project for trace metals. MSs were not performed for the project samples.

All QC results reported are within laboratory acceptance criteria.

4.5.2 Organotins

MSs

Batch QC is only available for this project for tributyltin. MSs were not performed for the project samples.

All QC results reported are within laboratory acceptance criteria.

4.5.3 Organochlorine Pesticides by EPA Method 8081

MSs

Batch QC is only available for this project for pesticides. MSs were not performed for the project samples.

Holding Time

The site water sample for pesticides was reprepared and analyzed past holding time due to low surrogate recoveries. The initial data is included in the laboratory report.

CCV

The CCV was recovered above the upper control limit for oxy-Chlordane. The samples associated with this CCV were non-detects therefore, the sample results were not affected.

All other QC results reported are within laboratory acceptance criteria.

4.5.4 Polynuclear Aromatic Hydrocarbons by EPA Method 8270

MSs

Batch QC only is available for this project for PAHs. MSs were not performed for the project samples.

All QC results reported are within laboratory acceptance criteria.

4.5.5 PCB Aroclors and Congeners by EPA Method 8082

MSs

Batch QC only is available for this project for PCBs. MSs were not performed for the project samples.

Surrogate Recoveries

Several samples had surrogate recoveries outside the laboratory acceptance criteria. The case narrative indicates the samples had evidence of matrix interference and were reported as is.

All other QC results reported are within laboratory acceptance criteria.

4.5.6 Dioxins and Furans by EPA Method 8290

MSs

Batch QC only is available for this project for PCBs. MSs were not performed for the project samples.

All QC results reported are within laboratory acceptance criteria.

REFERENCES

ANAMAR Environmental Consulting, Inc. 2024. *Sampling and Analysis Plan/Quality Assurance Project Plan Georgetown Harbor and Little River Inlet, South Carolina.* Submitted to USACE Charleston District. December 2024.

Buchman, M.F. 2008. *NOAA Screening Quick Reference Tables*. NOAA, OR&R Report 08-1, Office of Response and Restoration Division, Seattle, WA.

Krone, C.A., D.W. Brown, D.G. Burrows, R.G. Bogar, S. Chan, and U. Varanasi. 1989. A method for analysis of butyltin species and measurements of butyltins in sediment and English sole livers from Puget Sound. *Marine Environmental Research* 27(1):1–18.

EPA. 2010. *Recommended Toxicity Equivalence Factors (TEFs) for Human Health Risk Assessments of 2,3,7,8-Tetrachlorodibenzo-*p*-dioxin and Dioxin-Like Compounds.* EPA, Risk Assessment Forum, Washington, DC.

EPA. 2015. *National Recommended Water Quality Criteria* [online resource]. Accessed 07/28/21 at National Recommended Water Quality Criteria - Aquatic Life Criteria Table | Water Quality Criteria | US EPA

EPA and USACE. 1998. *Evaluation of Dredged Material for Discharge in Waters of the U.S. – Testing Manual* [ITM]. EPA 823-B-98-004. EPA, Office of Water and Office of Science and Technology, Washington, D.C.; and Department of the Army, USACE, Operations, Construction, and Readiness Division, Washington, D.C.

Tables 1-14

TABLE 1
Vibracore Sampling Summary

Location Name	Composite ID	Subsample ID	Core Number	Date	Time (EST)	Northing[1] (feet, NAD 83)	Easting[1] (feet, NAD 83)	Project Test Elevation (feet, MLLW)	Metrics Per Core Sample							Weather/Tidal Cycle	Notes[4]
									Water Depth (feet)	Water Surface Elevation[2] (feet, MLLW)	Top of Core Elevation[3] (feet, MLLW)	Bottom of Core Elevation (feet, MLLW)	Core Penetration (feet)	Recovery Length (feet)	Recovery per Core (%)		
Steel Mill Channel	GT25-SM-1	GT25-SM-1A	1	1/29/25	0950	550008.18	2523357.56	-20.0	6.9	0.2	-3.7	-20.0	16.3	15.2	91	High and outgoing tide; 5-10 knots S SW winds; Sunny and calm	**0-2:** Unconsolidated black silt; **2-15:** Dark Grey clay and silt mix; **15-16.3:** Dark grey clay and silt with more clay
		GT25-SM-1B	1		1010	550509.50	2523305.41	-20.0	3.8	0.1	-9.7	-20.0	19.3	15.1	78	High and outgoing tide; 5-10 knots S SW winds; Sunny and calm	**0-2:** Unconsolidated black silt; **2-15:** Dary grey clay and silt; **15-19.3:** Dark grey clay and silt with more clay
		GT25-SM-1C	1		1035	550772.68	2523173.39	-20.0	3.7	2.9	-9.8	-20.0	19.2	15.4	80	High and outgoing tide; 5-10 knots S SW winds; Sunny and calm	**0-2:** Unconsolidated black silt; **2-12:** Dark grey clay and silt; **12-19.2:** Dark grey clay and silt with more clay
	GT25-SM-2	GT25-SM-2A	1		0815	551102.47	2522857.39	-20.0	3.8	3.0	-9.8	-20.0	19.2	15.3	80	High and incoming tide; 5-10 knots S SW winds; Sunny and calm	**0-2:** Unconsolidated dark brown/black silt; **3-19.2:** Dark grey/black clay mixed with silt
		GT25-SM-2B	1		0845	551268.43	2522479.64	-20.0	6.0	3.3	-7.7	-20.0	17.3	14.1	82	High incoming tide; winds 5-10 knots S SW; Sunny and calm	**0-3:** Unconsolidated black silt; **3-15:** Dark grey clay and silt mix; **15-17.3:** Dark grey clay and silt, with more clay.
		GT25-SM-2C	1		0915	551586.84	2522311.87	-20.0	7.3	3.3	-4.0	-20.0	16.0	13.0	81	High incoming tide; winds 5-10 knots S SW; Sunny and calm	**0-2.5:** Unconsolidated black silt; **2.5-13.5:** Dark grey clay and silt; **13.5-16:** Dark grey clay and silt with a little more clay.
Bypass Channel	GT25-BP-3	GT25-BP-3A	1	1/28/25	1235	553878.93	2524720.41	-17.0	6.1	0.8	-5.5	-17.0	11.5	10.8	94	Mid outgoing tide; winds 5-10 knots S SW; Sunny and Calm	**0-2.5:** Unconsolidated black silt; **2.5-11.5:** Grey silty clay
		GT25-BP-3B	1		1305	553672.66	2524915.86	-17.0	6.8	0.2	-6.8	-17.0	10.2	10.0	98	Mid outgoing tide; winds 5-10 knots S SW; Sunny and Calm	**0-2:** Unconsolidated black silt; **2-6:** silty clay; **6-10.2:** silty dark grey clay. Bit of a greasy feel to this sample
		GT25-BP-3C	1		1330	553526.76	2524680.27	-17.0	7.3	0.2	7.5[5]	-17.0	9.5	9.5	100	Mid outgoing tide; winds 10-15 knots W NW; Sunny and Calm	**0-2:** Unconsolidated black silt; **2-6:** Mix of dark grey clay and silt; **6-6.9:** Dark grey clay with silt
	GT25-BP-4	GT25-BP-4A	1	1/28/25	1425	551230.23	2524420.67	-17.0	8.8	-0.9	-9.7	-17.0	7.3	7.3	100	Low tide; winds 5-10 knots W SW; Sunny and calm	**0-2.5:** Unconsolidated grey clay and silt; **2.5-4.5:** Dark grey clay and silt; **4.5-7.3:** Dark grey clay
		GT25-BP-4B	1		1440	551951.42	2523717.80	-17.0	8.9	-0.8	-9.7	-17.0	7.3	6.7	92	Low incoming tide; winds 5-10 knots W SW; Sunny and calm.	**0-2:** Unconsolidated black silt; **2-6:** Dark grey clay mixed with silt; **6-7.3:** Dark grey clay
		GT25-BP-4C	1		1505	552412.79	2523071.83	-17.0	10.7	-0.9	-11.6	-17.0	5.4	5.4	100	Low tide; winds 5-10 knots W SW; Sunny and calm	**0-2:** Unconsolidate black silt. **2-5.4:** Almost black clay and silt
		GT25-BP-4D	1		1525	552596.07	2522494.70	-17.0	7.8	-1.1	-8.9	-17.0	8.1	8.0	99	Low tide; winds 5-10 knots W SW; Sunny and calm	**0-2:** Unconsolidated black clay and silt. **2-8.1:** Dark grey clay and silt.

TABLE 1A (*continued*)
Vibracore and Grab Sampling Summary

Location Name	Composite ID	Subsample ID	Core Number	Date	Time (EST)	Northing[1] (feet, NAD 83)	Easting[1] (feet, NAD 83)	Project Test Elevation (feet, MLLW)	Metrics Per Core Sample							Weather/Tidal Cycle	Notes[4]
									Water Depth (feet)	Water Surface Elevation[2] (feet, MLLW)	Top of Core Elevation[3] (feet, MLLW)	Bottom of Core Elevation (feet, MLLW)	Core Penetration (feet)	Recovery Length (feet)	Recovery per Core (%)		
Connector Channel	GT25-CC-5	GT25-CC-5A	1	1/29/25	1150	552093.78	2521838.57	-20.0	13.9	1.8	-12.1	-20.0	7.9	6.5	82	Mid outgoing tide; winds 10-15 knots W; Sunny and Calm	**0-4:** Unconsolidated black silt; **4-7.9:** Dark grey clay and silt
		GT25-CC-5B	1		1215	552282.84	2522060.57	-20.0	11.7	1.5	-10.0	-20.0	9.8	8.1	82	Mid outgoing tide; winds 10-15 knots W; Sunny and Calm	**0-2:** Unconsolidated black silt; **2-6:** Dark grey clay and silt; **6-9.8:** Firmer dark clay with silt
		GT25-CC-5C	1		1235	552464.31	2522142.20	-20.0	10.0	1.1	-8.9	-20.0	11.1	11.1	100	Low tide; winds 10-15 knots W; Sunny and Calm	**0-2:** Unconsolidated black silt; **2-7:** Dark grey clay and silt; **7-10:** Dark browned clay and silt; **7-10:** Shell hill clay and silt. **10-11.1:** shell with clay and silt
Sampit River Channel	GT25-SR-6	GT25-SR-6A	1	1/28/25	0915	555568.45	2525580.41	-25.0	15.7	3.0	-12.7	-25.0	12.3	9.6	78	Outgoing tide; winds 5-10 knots W; Sunny and Calm	**0-2:** Unconsolidated black silt; **2-12.3:** Black clay and silt
		GT25-SR-6B	1		1005	555997.35	2525436.77	-25.0	16.4	2.3	-14.1	-25.0	10.9	9.1	84	Outgoing tide; winds 5-10 knots W; Sunny and Calm	**0-2:** Unconsolidated black silt; **2-10.9:** Dark grey clay and silt
		GT25-SR-6C	1		1055	557138.02	2524972.68	-25.0	20.1	1.9	-16.2	-25.0	8.8	8.4	94	Outgoing tide; winds 5-10 knots W; Sunny and Calm	**0-2:** Unconsolidated black silt; **2-8.4:** Grey silty clay with a little sand
		GT25-SR-6D	1		1120	557833.08	2524533.89	-25.0	19.8	1.4	-18.4	-25.0	6.6	5.7	86	Outgoing tide; winds 5-10 knots W; Sunny and Calm	**0-2:** Unconsolidated black silt; **2-6.6:** Grey silty clay

[1] Datum NAD 83, Florida East State Plane (U.S. survey feet).
[2] Water surface elevation is based on real-time tide elevations with on board RTK system.
[3] Calculated as water surface elevation minus water depth
[4] Unless otherwise noted, no living organisms or organic debris observed, no oil present, no odor detected.
Source: ANAMAR Environmental Consulting, Inc. See field sheets in Appendix B for more information.
[5] A miscalculation on Top of Core occurred at GT25-BP-3C. See section 2.2.5 of the evaluation report for more details.

TABLE 2
Site Water Collection Data

Sample ID:	Site Water		
	GT25-SW		
Date	01/30/25		
Sampling Start/End Times (EST)	0900-1000		
Depth of Water (feet)	15.8		
Time of Measurement (EST)	8:50	8:52	8:53
Depth of Measurement (feet)	3	8	13
Water Temperature (°C)	6.3	7.3	7.0
pH (units)	7.97	7.53	7.06
Salinity (ppt)	0.65	2.11	8.70
Sp. Conductivity (µS/cm)	1307	3983	15060
Dissolved Oxygen (mg/L)	12.65	11.13	8.11
Dissolved Oxygen (%)	103.8	93.7	70.8
Turbidity (NTU)	19.5	--	--
Easting[1]	562095.87		
Northing[1]	2521825.36		
Sampling Method	Submersible pump, Peristaltic pump, pneumatic pump		
Field Description of Sample	Yellow, no suspended material or odor observed		
Weather/Tidal Cycle	Incoming high tide. Winds are 10-15 knots out of the East. Sea state is calm with partly cloudy skies. Temperature 50 F.		
General Conditions and Observations	Collected 28 2.5-gallon cube containers for elutriate and site water chemistry kit. Chemistry kit consisted of (2) 250ml Amber glass jars, (8) 1 L Amber Glass jars, (1) 1 L plastic bottle, (4) 40 ml Amber vials (sulfuric acid preservation), and (1) 250 ml plastic bottles (nitric acid preservation).		

[1] Datum NAD 83, Florida East State Plane U.S. Survey Feet

Source: ANAMAR Environmental Consulting, Inc.

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TABLE 3 (*continued*)
Results of Physical Analyses for Sediment Subsamples

Subsample ID: GT25-		Steel Mill Channel						Bypass Channel		
		SM-1A	SM-1B	SM-1C	SM-2A	SM-2B	SM-2C	BP-3A	BP-3B	BP-3C
% Gravel		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% Coarse Sand		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% Medium Sand		0.3	0.0	0.5	0.0	0.0	0.0	0.4	0.0	0.0
% Fine Sand		3.5	2.2	1.4	1.7	1.4	1.2	1.6	1.2	0.9
% Sand (total)		3.8	2.2	1.9	1.7	1.4	1.2	2.0	1.2	0.9
% Silt		35.9	36.2	40.8	35.0	36.1	37.9	37.3	46.2	48.1
% Clay		60.3	61.6	57.3	63.3	62.5	60.9	60.7	52.6	51.0
% Silt & Clay (combined)		96.2	97.8	98.1	98.3	98.6	98.8	98.0	98.8	99.1
Specific Gravity		2.57	2.56	2.59	2.54	2.57	2.57	2.58	2.58	2.60
Atterberg Limits	PL	69	71	69	67	60	64	82	69	59
	LL	214	221	218	220	216	221	191	219	202
	PI	145	150	149	153	156	157	109	150	143
% Passing Sieve Size	Metric Equivalent (mm)									
3 inch	76.2	100	100	100	100	100	100	100	100	100
2 inch	50.8	100	100	100	100	100	100	100	100	100
1.5 inch	38.1	100	100	100	100	100	100	100	100	100
1 inch	25.4	100	100	100	100	100	100	100	100	100
0.75 inch	19.1	100	100	100	100	100	100	100	100	100
0.375 inch	9.5	100	100	100	100	100	100	100	100	100
#4	4.75	100	100	100	100	100	100	100	100	100
#10	2.00	100	100	100	100	100	100	100	100	100
#20	0.85	99.9	100	99.7	100	100	100	99.6	100	100
#40	0.425	99.7	100	99.5	100	100	100	99.6	100	100
#60	0.250	99.6	99.8	99.5	100	100	100	99.6	100	100
#80	0.180	99.1	99.6	99.3	99.9	100	99.9	99.5	99.9	100
#100	0.149	97.7	98.6	98.6	99.0	99.1	99.1	98.8	99.1	99.3
#200	0.075	96.2	97.8	98.1	98.3	98.6	98.8	98.0	98.8	99.1
Hydrometer Readings (% less than the following sizes)		90.7 @ 0.0314 mm	92.5 @ 0.0314 mm	97.9 @ 0.030 mm	96.4 @ 0.0316 mm	96.7 @ 0.0318 mm	98.3 @ 0.0318 mm	92.6 @ 0.0322 mm	97.6 @ 0.0316 mm	97.5 @ 0.0312 mm
		83.6 @ 0.0203 mm	89 @ 0.0204 mm	95.8 @ 0.0191 mm	91.4 @ 0.0203 mm	91.4 @ 0.0204 mm	90.3 @ 0.0205 mm	87.3 @ 0.0206 mm	89.7 @ 0.0205 mm	92.6 @ 0.020 mm
		72 @ 0.0120 mm	78.2 @ 0.0119 mm	80.8 @ 0.0116 mm	83.7 @ 0.119 mm	78.3 @ 0.0121 mm	76.9 @ 0.0122 mm	76.7 @ 0.0122 mm	73.8 @ 0.0122 mm	75.5 @ 0.012 mm
		57.3 @ 0.0086 mm	68.7 @ 0.0086 mm	65.9 @ 0.0087 mm	71 @ 0.0088 mm	67.8 @ 0.0086 mm	66.3 @ 0.0087 mm	66 @ 0.0087 mm	60.5 @ 0.0086 mm	60.8 @ 0.0088 mm
		50.3 @ 0.0062 mm	61.6 @ 0.0063 mm	57.3 @ 0.0063 mm	63.3 @ 0.0061 mm	62.8 @ 0.0063 mm	60.9 @ 0.0063 mm	60.7 @ 0.0063 mm	52.6 @ 0.0064 mm	51 @ 0.0062 mm
		33.3 @ 0.003 mm	54.4 @ 0.003 mm	48.8 @ 0.0031 mm	55.7 @ 0.0031 mm	54.7 @ 0.0032 mm	50.2 @ 0.0033 mm	50.1 @ 0.0031 mm	44.6 @ 0.0031 mm	46.1 @ 0.0031 mm
		41.6 @ 0.0013 mm	42.5 @ 0.0013 mm	40.2 @ 0.0013 mm	45.5 @ 0.0013 mm	44.2 @ 0.0013 mm	39.6 @ 0.0013 mm	39.4 @ 0.0014 mm	39.3 @ 0.0014 mm	38.8 @ 0.0013 mm

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TABLE 3 (*continued*)
Results of Physical Analyses for Sediment Subsamples

Subsample ID: GT25-		Bypass Channel				Connector Channel			Sampit River Channel			
		BP-4A	BP-4B	BP-4C	BP-4D	CC-5A	CC-5B	CC-5C	SR-6A	SR-6B	SR-6C	SR-6D
% Gravel		0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.4	0.0
% Coarse Sand		0.0	0.0	0.0	0.1	0.0	0.0	1.6	0.2	0.9	1.5	0.7
% Medium Sand		0.0	0.9	0.1	1.5	1.3	0.9	1.2	0.6	1.2	5.6	1.5
% Fine Sand		1.3	0.9	1.2	6.2	1.1	1.6	2.8	16.3	2.1	24.1	8.3
% Sand (total)		1.3	1.8	1.3	7.8	2.4	2.5	5.6	17.3	4.2	32.2	10.5
% Silt		56.7	52.6	67.6	43.2	42.0	38.3	55.2	35.1	48.1	24.6	45.5
% Clay		42.0	45.6	31.1	49.0	55.6	59.2	38.0	47.6	47.7	42.8	44.0
% Silt & Clay (combined)		98.7	98.2	98.7	92.2	97.6	97.5	93.2	82.7	95.8	67.4	89.5
Specific Gravity		2.56	2.59	2.58	2.51	2.52	2.54	2.66	2.59	2.59	2.59	2.61
Atterberg Limits	PL	61	60	69	65	73	76	66	63	69	44	63
	LL	209	215	225	214	234	247	215	183	205	121	188
	PI	148	155	156	149	161	171	149	120	136	77	125
% Passing Sieve Size	Metric Equivalent (mm)											
3 inch	76.2	100	100	100	100	100	100	100	100	100	100	100
2 inch	50.8	100	100	100	100	100	100	100	100	100	100	100
1.5 inch	38.1	100	100	100	100	100	100	100	100	100	100	100
1 inch	25.4	100	100	100	100	100	100	100	100	100	100	100
0.75 inch	19.1	100	100	100	100	100	100	100	100	100	100	100
0.375 inch	9.5	100	100	100	100	100	100	100	100	100	100	100
#4	4.75	100	100	100	100	100	100	98.8	100	100	99.6	100
#10	2.00	100	100	100	99.9	100	100	97.2	99.8	99.1	98.1	99.3
#20	0.85	100	99.8	99.9	99.4	99.3	99.6	96.5	99.4	98.3	95.7	98.6
#40	0.425	100	99.1	99.9	98.4	98.7	99.1	96.0	99.0	97.9	91.5	97.8
#60	0.250	100	99.1	99.9	97.5	98.3	99.0	95.5	98.6	97.6	85.0	96.0
#80	0.180	99.9	99.1	99.8	94.6	98.1	98.2	95.3	95.9	97.4	74.4	94.6
#100	0.149	99.1	98.4	99.0	92.9	97.8	97.8	94.3	89.4	97.1	69.7	92.2
#200	0.075	98.7	98.2	98.7	92.2	97.6	97.5	93.2	82.7	95.8	67.4	89.5
Hydrometer Readings (% less than the following sizes)		97.6 @ 0.0318 mm	91.7 @ 0.0312 mm	96.7 @ 0.0318 mm	92.1 @ 0.0335 mm	96.8 @ 0.0335 mm	94.3 @ 0.0339 mm	81.8 @ 0.0335 mm	69.4 @ 0.0332 mm	72.3 @ 0.0335 mm	62.1 @ 0.0337 mm	70.5 @ 0.0341 mm
		89.7 @ 0.0205 mm	84.8 @ 0.0201 mm	86.2 @ 0.0206 mm	84.2 @ 0.0214 mm	88.5 @ 0.0214 mm	94.3 @ 0.0214 mm	78.4 @ 0.0213 mm	64 @ 0.0212 mm	68.2 @ 0.0214 mm	58.3 @ 0.0214 mm	70.5 @ 0.0216 mm
		63.2 @ 0.0125 mm	66.3 @ 0.0122 mm	49.4 @ 0.0126 mm	72.5 @ 0.0126 mm	76.2 @ 0.0126 mm	85.8 @ 0.0125 mm	61.6 @ 0.0127 mm	58.5 @ 0.0124 mm	60 @ 0.0125 mm	53.8 @ 0.0125 mm	60.6 @ 0.0127 mm
		49.9 @ 0.0091 mm	52.5 @ 0.0089 mm	33.7 @ 0.0092 mm	56.8 @ 0.0091 mm	59.7 @ 0.0091 mm	68 @ 0.0092 mm	44.7 @ 0.0093 mm	53.1 @0.0087 mm	53.8 @ 0.0088 mm	45.5 @ 0.0088 mm	50.6 @ 0.0088 mm
		42 @ 0.0067 mm	45.6 @ 0.0062 mm	31.1 @ 0.0068 mm	49 @ 0.0065 mm	55.6 @ 0.0066 mm	59.2 @ 0.0066 mm	38 @ 0.0064 mm	47.6 @0.0063 mm	47.7 @ 0.0064 mm	42.8 @ 0.0064 mm	44 @ 0.0065 mm
		36.7 @ 0.0032 mm	38.7 @ 0.0032 mm	25.8 @ 0.0034 mm	36.2 @ 0.0032 mm	43.2 @ 0.0032 mm	46.1 @ 0.0032 mm	27.8 @ 0.0033 mm	42.2 @ 0.0032 mm	41.5 @ 0.0033 mm	37.3 @0.0031 mm	41.5 @ 0.0031 mm
		31.4 @ 0.0014 mm	34.1 @ 0.0014 mm	23.2 @ 0.0014 mm	28.4 @ 0.0014 mm	29.9 @ 0.0014 mm	31.8 @ 0.0014 mm	21.1 @ 0.0014 mm	33.3 @0.0013 mm	31.5 @ 0.0014 mm	25.5 @ 0.0014 mm	27.4 @ 0.0014 mm

See Appendix C for grain size distribution graphs and laboratory triplicate results.
Grain sizes are defined at the front of the tables section.

Source: Eurofins
Compiled by: ANAMAR Environmental Consulting, Inc.

TABLE 4
Results of Physical Analyses for Composited Sediment Samples

		Steel Mill Channel		Bypass Channel		Connector Channel	Sampit River Channel	GT25-BP-4 Field Split
Composite ID:		GT25-SM-1	GT25-SM-2	GT25-BP-3	GT25-BP-4	GT25-CC-5	GT25-SR-6	GT25-SF-7
% Gravel		0.0	0.0	0.0	0.0	0.3	0.0	0.4
% Coarse Sand		0.0	0.0	0.0	0.2	0.5	1.1	0.7
% Medium Sand		0.4	0.8	0.8	0.2	0.6	1.1	4.6
% Fine Sand		1.5	0.4	1.2	1.0	2.4	0.9	21.1
% Sand (total)		1.9	1.2	2.0	1.4	3.5	3.1	26.4
% Silt		38.5	35.5	46.5	50.5	59.0	65.7	5.2
% Clay		61.6	63.3	51.5	48.1	37.2	31.2	68.0
% Silt & Clay (combined)		98.1	98.8	98.0	98.6	96.2	96.9	73.2
Specific Gravity		2.55	2.53	2.51	2.53	2.62	2.57	2.59
Atterberg Limits	PL	72	69	76	65	63	53	65
	LL	211	211	234	213	219	163	218
	PI	139	142	158	148	156	110	153
% Passing Sieve Size	Metric Equivalent (mm)							
3 inch	76.2	100	100.0	100.0	100.0	100.0	100.0	100.0
2 inch	50.8	100	100.0	100.0	100.0	100.0	100.0	100.0
1.5 inch	38.1	100	100.0	100.0	100.0	100.0	100.0	100.0
1 inch	25.4	100	100.0	100.0	100.0	100.0	100.0	100.0
0.75 inch	19.1	100	100.0	100.0	100.0	100.0	100.0	100.0
0.375 inch	9.5	100	100.0	100.0	100.0	100.0	100.0	100.0
#4	4.75	100	100.0	100.0	100.0	99.7	100.0	99.6
#10	2.00	100	100.0	100.0	99.8	99.2	98.9	98.9
#20	0.85	99.8	99.4	99.5	99.7	98.7	97.9	97.4
#40	0.425	99.6	99.2	99.2	99.6	98.6	97.8	94.3
#60	0.250	99.4	99.1	99.0	99.3	98.5	97.8	88.5
#80	0.180	99.2	99.1	98.7	99.2	98.2	97.7	80.3
#100	0.149	99.0	99.1	98.6	99.0	97.2	97.2	76.2
#200	0.075	98.1	98.8	98.0	98.6	96.2	96.9	73.2
Hydrometer Readings (% less than the following sizes)		91.9 @ 0.033 mm	92.6 @ 0.0334 mm	87.7 @ 0.0335 mm	91.7 @ 0.0334 mm	92.5 @ 0.0287 mm	69.4 @ 0.0308 mm	92.8 @ 0.0302 mm
		85.2 @ 0.0211 mm	92.6 @ 0.0211 mm	80.5 @ 0.0215 mm	88.1 @ 0.0212 mm	87.1 @ 0.0186 mm	66.1 @ 0.0198 mm	88.7 @ 0.0194 mm
		78.4 @ 0.0123 mm	81.6 @ 0.0124 mm	69.6 @ 0.0126 mm	69.9 @ 0.0126 mm	72.9 @ 0.0113 mm	52.8 @ 0.012 mm	80.4 @ 0.0115 mm
		68.3 @ 0.0089 mm	70.6 @ 0.0089 mm	58.8 @ 0.009 mm	59 @ 0.0089 mm	44.3 @ 0.0088 mm	36.2 @ 0.0089 mm	74.2 @ 0.0084 mm
		61.6 @ 0.0062 mm	63.3 @ 0.0065 mm	51.5 @ 0.0063 mm	48.1 @ 0.0067 mm	37.2 @ 0.0064 mm	31.2 @ 0.0065mm	68 @ 0.0061mm
		55.7 @ 0.0031 mm	56.8 @ 0.0031 mm	45.2 @ 0.0032 mm	41.8 @ 0.0033 mm	28.3 @ 0.0032 mm	26.3 @ 0.0032 mm	57.6 @ 0.003 mm
		41.3 @ 0.0013 mm	44.9 @ 0.0014 mm	33.5 @ 0.0014 mm	30 @ 0.0014 mm	26.5 @ 0.0013 mm	23 @ 0.0013 mm	47.3 @ 0.0013 mm

See Appendix C for grain size distribution graphs and laboratory triplicate results.

Grain sizes are defined at the front of the tables section.

Source: Terracon

Compiled by: ANAMAR Environmental Consulting, Inc.

TABLE 5 (*continued*)
Analytical Results for Dry Weight Metals, TOC, Total Solids, and Tributyltin in Sediment Samples

				Steel Mill Channel								Bypass Channel								Connector Channel				Sampit River Channel				GT25-BP-4 Field Split			
	Sample ID:			GT25-SM-1				GT25-SM-2				GT25-BP-3				GT25-BP-4				GT25-CC-5				GT25-SR-6				GT25-SF-7			
Analyte	Maximum Conc. mg/kg	TEL mg/kg	ERL mg/kg	Result mg/kg	Qualifier	MDL	MRL	Result mg/kg	Qualifier	MDL	MRL	Result mg/kg	Qualifier	MDL	MRL	Result mg/kg	Qualifier	MDL	MRL	Result mg/kg	Qualifier	MDL	MRL	Result mg/kg	Qualifier	MDL	MRL	Result mg/kg	Qualifier	MDL	MRL
Metals																															
Antimony	0.49	x	x	0.24	J	0.20	0.50	0.34	J	0.27	0.68	0.31	J	0.24	0.61	0.47	J	0.30	0.75	0.49	J	0.29	0.74	0.28	J	0.20	0.49	0.45	J	0.30	0.75
Arsenic	**29**	7.24	8.2	**26**	--	0.34	1.0	**28**	--	0.45	1.4	**26**		0.41	1.2	**22**	--	0.50	1.5	**22**	--	0.49	1.5	**26**	--	0.33	0.98	**24**	--	0.50	1.5
Cadmium	**1.2**	0.676	1.2	0.17	J	0.10	0.25	0.15	J	0.14	0.34	0.20	J	0.12	0.30	**0.81**	--	0.15	0.37	**1.2**	--	0.15	0.37	0.11	J	0.098	0.24	**0.90**	--	0.15	0.38
Chromium	**97**	52.3	81	**73**	--	0.46	1.0	**81**	--	0.64	1.4	**77**	--	0.58	1.2	**87**	--	0.71	1.5	**85**	--	0.70	1.5	**66**	--	0.46	0.98	**97**	--	0.71	1.5
Copper	**37**	18.7	34	**26**	--	0.45	1.0	**29**	--	0.61	1.4	**33**	--	0.55	1.2	**35**	--	0.67	1.5	**32**	--	0.66	1.5	**24**	--	0.44	0.98	**37**	--	0.68	1.5
Lead	78	30.24	46.7	29.0	*2	0.19	0.50	**33**	*2	0.26	0.68	**33**	*2	0.23	0.61	**50**	*2	0.28	0.75	**78**	*2	0.28	0.74	27	*2	0.19	0.49	**60**	*2	0.29	0.75
Mercury	0.11	0.13	0.15	0.10	J	0.069	0.21	0.093	J	0.066	0.20	0.095	J	0.059	0.18	0.10	J	0.078	0.23	0.11	J	0.076	0.23	0.078	J	0.053	0.16	0.11	J	0.078	0.23
Nickel	**30**	15.9	20.9	**27**	--	0.48	1.0	**29**	--	0.64	1.4	**28**	--	0.58	1.2	**27**	--	0.71	1.5	**26**	--	0.70	1.5	**24**	--	0.46	0.98	**30**	--	0.71	1.5
Selenium	1.2	x	x	1.1	--	0.25	1.0	1.2	J	0.34	1.4	1.0	J	0.30	1.2	1.0	J	0.37	1.5	0.81	J	0.37	1.5	0.93	J	0.24	0.98	1.0	J	0.38	1.5
Silver	0.21	0.730	1	ND	U	0.10	0.25	ND	U	0.14	0.34	ND	U	0.12	0.30	0.16	J	0.15	0.37	0.19	J	0.15	0.37	ND	U	0.099	0.24	0.21	J	0.15	0.38
Zinc	**830**	124	150	120	--	10	75	**140**	--	14	100	**160**	--	12	91	**750**	--	15	110	**830**	--	15	110	110	--	9.8	73	**660**	--	15	110
Others																															
Analyte	Maximum Conc. mg/kg	TEL %	ERL %	Result mg/kg	Qualifier	MDL	MRL	Result mg/kg	Qualifier	MDL	MRL	Result mg/kg	Qualifier	MDL	MRL	Result mg/kg	Qualifier	MDL	MRL	Result mg/kg	Qualifier	MDL	MRL	Result mg/kg	Qualifier	MDL	MRL	Result mg/kg	Qualifier	MDL	MRL
Carbon, Total Organic	61000	x	x	56000	--	3300	3400	61000	--	3400	3500	47000	--	3000	3100	55000	--	4000	4100	50000	--	4000	4100	46000	--	2800	2900	53000	--	4000	4100
Total Solids	34.7	x	x	29.1				28.2				32				24.5				24.4				34.7				24.4			
Analyte	Maximum Conc. µg/kg	TEL µg/kg	ERL µg/kg	Result µg/kg	Qualifier	MDL	MRL	Result µg/kg	Qualifier	MDL	MRL	Result µg/kg	Qualifier	MDL	MRL	Result µg/kg	Qualifier	MDL	MRL	Result µg/kg	Qualifier	MDL	MRL	Result µg/kg	Qualifier	MDL	MRL	Result µg/kg	Qualifier	MDL	MRL
Tributyltin	ND	x	x	ND	U	5.2	5.2	ND	U	5.5	5.5	ND	U	4.6	4.6	ND	U	6.1	6.1	ND	U	6.1	6.1	ND	U	4.2	4.2	ND	U	6.2	6.2

Bolded values meet or exceed the TEL and (or) ERL.
Non-detect (ND) = The analyte was not detected at or above the MDL.
Acronyms and qualifiers are defined at the front of the tables section.

Sources: Results from Eurofins; TEL and ERL values from Buchman (2008).
Compiled by: ANAMAR Environmental Consulting, Inc.

TABLE 6 (*continued*)
Analytical Results for Dry Weight PAHs in Sediment Samples

				Steel Mill Channel								Bypass Channel								Connector Channel				Sampit River Channel				GT25-BP-4 Field Split			
	Sample ID:			GT25-SM-1				GT25-SM-2				GT25-BP-3				GT25-BP-4				GT25-CC-5				GT25-SR-6				GT25-SF-7			
Analyte	Maximum Conc. µg/kg	TEL µg/kg	ERL µg/kg	Result µg/kg	Qualifier	MDL	MRL	Result µg/kg	Qualifier	MDL	MRL	Result µg/kg	Qualifier	MDL	MRL	Result µg/kg	Qualifier	MDL	MRL	Result µg/kg	Qualifier	MDL	MRL	Result µg/kg	Qualifier	MDL	MRL	Result µg/kg	Qualifier	MDL	MRL
1-Methylnaphthalene[LMW]	ND	x	x	ND	U	2.6	12	ND	U	2.7	12	ND	U	2.3	10	ND	U	3.1	14	ND	U	3.1	14	ND	--	2.2	9.5	ND	U	3.1	14
2-Methylnaphthalene[LMW]	ND	20.2	70	ND	U	2.8	12	ND	U	2.8	12	ND	U	2.5	10	ND	U	3.2	14	ND	U	3.2	14	ND	--	2.3	9.5	ND	U	3.3	14
Acenaphthene[LMW]	4.0	6.71	16	ND	U	3.3	12	ND	U	3.4	12	ND	U	3.0	10	ND	U	3.9	14	4.0	J	3.9	14	ND	--	2.7	9.5	ND	U	3.9	14
Acenaphthylene	ND	5.87	44	ND	U	2.5	12	ND	U	2.6	12	ND	U	2.3	10	ND	U	3.0	14	ND	U	3.0	14	ND	--	2.1	9.5	ND	U	3.0	14
Anthracene[LMW]	14	46.9	85.3	ND	U	3.0	12	3.4	J	3.1	12	3.2	J	2.7	10	14	--	3.5	14	12	J	3.5	14	ND	--	2.5	9.5	ND	U	3.5	14
Benzo(a)anthracene[HMW]	**110**	74.8	261	ND	U	5.2	12	ND	U	5.3	12	4.8	J	4.7	10	**110**	--	6.1	14	39	--	6.1	14	ND	--	4.3	9.5	14	--	6.2	14
Benzo(e)pyrene[HMW]	63	88.8	430	ND	U	5.0	12	ND	U	5.1	12	ND	U	4.5	10	63	--	5.9	14	51	--	5.9	14	ND	--	4.1	9.5	15	--	5.9	14
Benzo(b)fluoranthene	72	x	x	3.0	J	2.8	12	4.6	J	2.9	12	5.4	J	2.5	10	72	--	3.3	14	59	--	3.3	14	ND	--	2.3	9.5	24	--	3.4	14
Benzo(g,h,i)perylene	47	x	x	ND	U	2.5	12	ND	U	2.6	12	ND	U	2.2	10	35	--	2.9	14	47	--	2.9	14	ND	--	2.0	9.5	12	J	2.9	14
Benzo(k)fluoranthene	39	x	x	ND	U	3.4	12	ND	U	3.5	12	ND	U	3.1	10	39	--	4.1	14	23	--	4.0	14	ND	--	2.8	9.5	9.1	J	4.1	14
Chrysene[HMW]	**110**	108	384	ND	U	6.4	12	ND	U	6.6	12	ND	U	5.7	10	**110**	--	7.5	14	60	--	7.5	14	ND	--	5.3	9.5	20	--	7.6	14
Dibenzo(a,h)anthracene[HMW]	**13**	6.22	63.4	ND	U	**7.3**	12	ND	U	**7.6**	12	ND	U	**6.6**	10	**10**	J	**8.7**	14	**13**	J	**8.6**	14	ND	--	6.1	9.5	ND	U	**8.7**	14
Fluoranthene[HMW]	**250**	113	600	4.9	J *-	3.0	12	7.1	J *-	3.1	12	6.3	J *-	2.7	10	**250**	*-	3.6	14	57	*-	3.6	14	3.0	J *-	2.5	9.5	27	*-	3.6	14
Fluorene[LMW]	6.7	21.2	19	ND	U	2.3	12	ND	U	2.3	12	ND	U	2.0	10	ND	U	2.7	14	6.7	J	2.7	14	ND	--	1.9	9.5	ND	U	2.7	14
Indeno(1,2,3-cd)pyrene	35	x	x	ND	U	5.7	12	ND	U	5.9	12	ND	U	5.1	10	33	--	6.7	14	35	--	6.7	14	ND	--	4.7	9.5	11	J	6.8	14
Naphthalene[LMW]	ND	34.6	160	ND	U	2.2	12	ND	U	2.3	12	ND	U	2.0	10	ND	U	2.6	14	ND	U	2.6	14	ND	--	1.8	9.5	ND	U	2.7	14
Phenanthrene[LMW]	50	86.7	240	ND	U	3.1	12	11	J	3.2	12	4.0	J	2.8	10	50	--	3.6	14	30	--	3.6	14	ND	--	2.5	9.5	8.9	J	3.7	14
Pyrene[HMW]	**220**	153	665	6.8	J	4.0	12	8.8	J	4.1	12	11	U	3.6	10	**220**	--	4.8	14	84	--	4.7	14	ND	--	3.3	9.5	24	--	4.8	14
Total LMW PAHs	80	312	552	19				25				19				80				82				16				26			
Total HMW PAHs	**763**	655	1700	36				41				39				**763**				304				26				109			
Total PAHs	1025	1684	4022	72				88				76				1025				533				56				194			

LMW Low molecular weight PAHs (NOAA 1999).
HMW High molecular weight PAHs (NOAA 1999).
Bolded values meet or exceed the TEL and (or) ERL.
Non-detect (ND) = The analyte was not detected at or above the MDL. Non-detect results use the MDL for calculating the total PAHs. (J-qualified results use the value reported by the laboratory for calculating total PAHs.)
Acronyms and qualifiers are defined at the front of the tables section.

Sources: Results from Eurofins TestAmerica; TEL and ERL values from Buchman (2008).
Compiled by: ANAMAR Environmental Consulting, Inc.

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TABLE 7 (*continued*)
Analytical Results for Dry Weight Pesticides in Sediment Samples

			Sample ID:	Steel Mill Channel								Bypass Channel							
				GT25-SM-1				GT25-SM-2				GT25-BP-3				GT25-BP-4			
Analyte	Maximum Conc. µg/kg	TEL µg/kg	ERL µg/kg	Result µg/kg	Qualifier	MDL	MRL	Result µg/kg	Qualifier	MDL	MRL	Result µg/kg	Qualifier	MDL	MRL	Result µg/kg	Qualifier	MDL	MRL
Aldrin	ND	x	x	ND	U	0.44	1.4	ND	U	0.23	0.74	ND	U	0.20	0.64	ND	U	0.26	0.84
Chlordane (technical)	ND	2.26	0.5	ND	U	6.1	14	ND	U	3.2	7.4	ND	U	2.8	6.4	ND	U	3.6	8.4
α (cis)-Chlordane	ND	x	x	ND	U	0.36	1.4	ND	U	0.19	0.74	ND	U	0.16	0.64	ND	U	0.21	0.84
γ (trans)-Chlordane	0.21	x	x	ND	U	0.33	1.4	ND	U	0.17	0.74	ND	U	0.15	0.64	0.21	J	0.20	0.84
Oxychlordane	ND	x	x	ND	U	0.58	1.4	ND	U	0.30	0.74	ND	U	0.27	0.64	ND	U	0.35	0.84
cis-Nonachlor	ND	x	x	ND	U	0.45	1.4	ND	U	0.23	0.74	ND	U	0.20	0.64	ND	U	0.27	0.84
trans-Nonachlor	ND	x	x	ND	U	0.65	1.4	ND	U	0.34	0.74	ND	U	0.30	0.64	ND	U	0.39	0.84
o,p' (2,4')-DDD	0.15	x	x	ND	U	0.85	1.4	ND	U	0.44	0.74	ND	U	0.39	0.64	ND	U	0.51	0.84
p,p' (4,4')-DDD	1.0	1.22	2	0.57	J	0.30	1.4	ND	U	0.16	0.74	ND	U	0.14	0.64	ND	U	0.18	0.84
o,p' (2,4')-DDE	ND	x	x	ND	U	0.86	1.4	ND	U	0.45	0.74	ND	U	0.39	0.64	ND	U	0.51	0.84
p,p' (4,4')-DDE	ND	2.07	2.2	ND	U	0.29	1.4	ND	U	0.15	0.74	ND	U	0.13	0.64	ND	U	0.17	0.84
o,p' (2,4')-DDT	4.3	x	x	2.1	--	0.55	1.4	ND	U	0.29	0.74	ND	U	0.25	0.64	ND	U	0.33	0.84
p,p' (4,4')-DDT	21	1.19	1	11	F1	1.0	1.4	ND	U	0.53	0.74	ND	U	0.46	0.64	ND	U	0.61	0.84
Dieldrin	ND	0.715	0.02	ND	U	0.36	1.4	ND	U	0.19	0.74	ND	U	0.16	0.64	ND	U	0.21	0.84
Endosulfan I	ND	x	x	ND	U	0.38	1.4	ND	U	0.20	0.74	ND	U	0.17	0.64	ND	U	0.23	0.84
Endosulfan II	ND	x	x	ND	U	0.31	1.4	ND	U	0.16	0.74	ND	U	0.14	0.64	ND	U	0.19	0.84
Endrin	ND	x	x	ND	U	0.27	1.4	ND	U	0.14	0.74	ND	U	0.12	0.64	ND	U	0.16	0.84
Endrin Aldehyde	ND	x	x	ND	U	0.51	1.4	ND	U	0.26	0.74	ND	U	0.23	0.64	ND	U	0.30	0.84
Endrin Ketone	ND	x	x	ND	U	0.58	1.4	ND	U	0.30	0.74	ND	U	0.26	0.64	ND	U	0.34	0.84
Heptachlor	ND	x	x	ND	U	0.44	1.4	ND	U	0.23	0.74	ND	U	0.20	0.64	ND	U	0.26	0.84
Heptachlor Epoxide	ND	x	x	ND	U	0.36	1.4	ND	U	0.19	0.74	ND	U	0.16	0.64	ND	U	0.22	0.84
α-BHC	ND	x	x	ND	U	0.35	1.4	ND	U	0.18	0.74	ND	U	0.16	0.64	ND	U	0.21	0.84
β-BHC	ND	x	x	ND	U	0.39	1.4	ND	U	0.20	0.74	ND	U	0.18	0.64	ND	U	0.23	0.84
δ-BHC	ND	x	x	ND	U	0.45	1.4	ND	U	0.23	0.74	ND	U	0.20	0.64	ND	U	0.27	0.84
γ-BHC (Lindane)	ND	0.32	x	ND	U	0.37	1.4	ND	U	0.19	0.74	ND	U	0.17	0.64	ND	U	0.22	0.84
Methoxychlor	ND	x	x	ND	U	0.55	1.4	ND	U	0.29	0.74	ND	U	0.25	0.64	ND	U	0.33	0.84
Mirex®	ND	x	x	ND	U	1.0	1.4	ND	U	0.540	0.74	ND	U	0.47	0.64	ND	U	0.61	0.84
Toxaphene	ND	0.1	x	ND	U	38	57	ND	U	20	30	ND	U	17	26	ND	U	23	34
Chlorinated Pesticides, Total	68.6	x	x	68.6				30.0				25.7				34.4			

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TABLE 7 (*continued*)
Analytical Results for Dry Weight Pesticides in Sediment Samples

	Connector Channel				Sampit River Channel				GT25-BP-4 Field Split			
	GT25-CC-5				GT25-SR-6				GT25-SF-7			
Analyte	Result µg/kg	Qualifier	MDL	MRL	Result µg/kg	Qualifier	MDL	MRL	Result µg/kg	Qualifier	MDL	MRL
Aldrin	ND	U	0.053	0.17	ND	U	0.18	0.59	ND	U	0.26	0.85
Chlordane (technical)	ND	U	0.73	1.7	ND	U	2.5	5.9	ND	U	3.6	8.5
α (cis)-Chlordane	ND	U	0.043	0.17	ND	U	0.15	0.59	ND	U	0.21	0.85
γ (trans)-Chlordane	ND	U	0.040	0.17	ND	U	0.14	0.59	ND	U	0.20	0.85
Oxychlordane	ND	U	0.070	0.17	ND	U	0.24	0.59	ND	U	0.35	0.85
cis-Nonachlor	ND	U	0.054	0.17	ND	U	0.19	0.59	ND	U	0.27	0.85
trans-Nonachlor	ND	U	0.078	0.17	ND	U	0.27	0.59	ND	U	0.39	0.85
o,p' (2,4')-DDD	0.15	J	0.10	0.17	ND	U	0.36	0.59	ND	U	0.51	0.85
p,p' (4,4')-DDD	1.0	--	0.036	0.17	0.40	J	0.12	0.59	ND	U	0.18	0.85
o,p' (2,4')-DDE	ND	U	0.10	0.17	ND	U	0.36	0.59	ND	U	0.52	0.85
p,p' (4,4')-DDE	ND	U	0.035	0.17	ND	U	0.12	0.59	ND	U	0.17	0.85
o,p' (2,4')-DDT	4.3	--	0.067	0.17	1.4	--	0.23	0.59	ND	U	0.33	0.85
p,p' (4,4')-DDT	21	--	0.12	0.17	7.3	--	0.42	0.59	0.79	J	0.61	0.85
Dieldrin	ND	U	0.043	0.17	ND	U	0.15	0.59	ND	U	0.21	0.85
Endosulfan I	ND	U	0.046	0.17	ND	U	0.16	0.59	ND	U	0.23	0.85
Endosulfan II	ND	U	0.038	0.17	ND	U	0.13	0.59	ND	U	0.190	0.85
Endrin	ND	U	0.032	0.17	ND	U	0.11	0.59	ND	U	0.16	0.85
Endrin Aldehyde	ND	U	0.061	0.17	ND	U	0.21	0.59	ND	U	0.30	0.85
Endrin Ketone	ND	U	0.069	0.17	ND	U	0.24	0.59	ND	U	0.35	0.85
Heptachlor	ND	U	0.053	0.17	ND	U	0.19	0.59	ND	U	0.27	0.85
Heptachlor Epoxide	ND	U	0.044	0.17	ND	U	0.15	0.59	ND	U	0.22	0.85
α-BHC	ND	U	0.042	0.17	ND	U	0.15	0.59	ND	U	0.21	0.85
β-BHC	ND	U	0.047	0.17	ND	U	0.16	0.59	ND	U	0.23	0.85
δ-BHC	ND	U	0.054	0.17	ND	U	0.19	0.59	ND	U	0.27	0.85
γ-BHC (Lindane)	ND	U	0.044	0.17	ND	U	0.15	0.59	ND	U	0.22	0.85
Methoxychlor	ND	U	0.066	0.17	ND	U	0.23	0.59	ND	U	0.33	0.85
Mirex®	ND	U	0.12	0.17	ND	U	0.43	0.59	ND	U	0.62	0.85
Toxaphene	ND	U	4.6	6.8	ND	U	16	24	ND	U	23	34
Chlorinated Pesticides, Total	33.0				32.3				34.6			

Underlined values represent U-qualified results having an MDL that meets or exceeds the TEL and (or) ERL.

Non-detect (ND) = The analyte was not detected at or above the MDL. Non-detect results use the MDL for calculating total pesticides. (J-qualified results use the value reported by the laboratory for calculating total pesticides.)

Acronyms and qualifiers are defined at the front of the tables section.

Sources: Results from Eurofins TestAmerica; TEL and ERL values from Buchman (2008).

Compiled by: ANAMAR Environmental Consulting, Inc.

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TABLE 8 (*continued*)
Analytical Results for Dry Weight PCBs and Aroclors in Sediment Samples

			Sample ID:	Steel Mill Channel								Bypass Channel							
				GT25-SM-1				GT25-SM-2				GT25-BP-3				GT25-BP-4			
Analyte	Maximum Conc. µg/kg	TEL µg/kg	ERL µg/kg	Result µg/kg	Qualifier	MDL	MRL	Result µg/kg	Qualifier	MDL	MRL	Result µg/kg	Qualifier	MDL	MRL	Result µg/kg	Qualifier	MDL	MRL
PCB 8[NOAA]	ND	x	x	ND	U	0.30	0.84	ND	U	0.31	0.85	ND	U	0.26	0.78	ND	U	0.35	0.97
PCB 18[NOAA]	0.89	x	x	ND	U	0.52	0.84	ND	U	0.53	0.85	ND	U	0.46	0.78	ND	U	0.60	0.97
PCB 28[NOAA]	1.2	x	x	ND	U	0.45	0.84	ND	U	0.46	0.85	ND	U	0.41	0.78	ND	U	0.51	0.97
PCB 44[NOAA]	0.74	x	x	ND	U	0.33	0.84	ND	U	0.34	0.86	ND	U	0.31	0.78	ND	U	0.38	0.97
PCB 49	1.1	x	x	ND	U	0.37	0.84	ND	U	0.37	0.86	ND	U	0.34	0.78	0.55	J	0.42	0.97
PCB 52[NOAA]	1.1	x	x	ND	U	0.34	0.84	ND	U	0.34	0.86	ND	U	0.31	0.78	0.39	J, p	0.39	0.97
PCB 66[NOAA]	ND	x	x	ND	U	0.62	0.84	ND	U	0.63	0.86	ND	U	0.57	0.78	ND	U	0.71	0.97
PCB 77	ND	x	x	ND	U	0.73	0.84	ND	U	0.75	0.86	ND	U	0.68	0.78	ND	U	0.84	0.97
PCB 87	ND	x	x	ND	U	0.47	0.84	ND	U	0.48	0.86	ND	U	0.44	0.78	ND	U	0.54	0.97
PCB 101[NOAA]	0.78	x	x	ND	U	0.23	0.84	ND	U	0.24	0.86	0.31	J, p	0.21	0.78	0.50	J, p	0.27	0.97
PCB 105[NOAA]	ND	x	x	ND	U	0.55	0.84	ND	U	0.56	0.86	ND	U	0.51	0.78	ND	U	0.63	0.97
PCB 118[NOAA]	ND	x	x	ND	U	0.57	0.84	ND	U	0.58	0.86	ND	U	0.53	0.78	ND	U	0.66	0.97
PCB 126	ND	x	x	ND	U	0.53	0.84	ND	U	0.54	0.86	ND	U	0.49	0.78	ND	U	0.61	0.97
PCB 128[NOAA]	ND	x	x	ND	U	0.31	0.84	ND	U	0.32	0.86	ND	U	0.29	0.78	ND	U	0.36	0.97
PCB 138[NOAA]	ND	x	x	ND	U	0.34	0.84	ND	U	0.35	0.86	ND	U	0.31	0.78	ND	U	0.39	0.97
PCB 153[NOAA]	0.83	x	x	ND	U	0.53	0.84	ND	U	0.54	0.86	ND	U	0.49	0.78	ND	U	0.61	0.97
PCB 156	ND	x	x	ND	U	0.45	0.84	ND	U	0.46	0.86	ND	U	0.42	0.78	ND	U	0.52	0.97
PCB 169	ND	x	x	ND	U	0.58	0.84	ND	U	0.59	0.86	ND	U	0.54	0.78	ND	U	0.67	0.97
PCB 170[NOAA]	ND	x	x	ND	U	0.42	0.84	ND	U	0.43	0.86	ND	U	0.39	0.78	ND	U	0.49	0.97
PCB 180[NOAA]	ND	x	x	ND	U	0.40	0.84	ND	U	0.41	0.86	ND	U	0.37	0.78	ND	U	0.46	0.97
PCB 183	ND	x	x	ND	U	0.55	0.84	ND	U	0.57	0.86	ND	U	0.51	0.78	ND	U	0.64	0.97
PCB 184	ND	x	x	ND	U	0.46	0.84	ND	U	0.47	0.86	ND	U	0.43	0.78	ND	U	0.53	0.97
PCB 187[NOAA]	ND	x	x	ND	U	0.45	0.84	ND	U	0.46	0.86	ND	U	0.42	0.78	ND	U	0.52	0.97
PCB 195[NOAA]	ND	x	x	ND	U	0.44	0.84	ND	U	0.45	0.86	ND	U	0.41	0.78	ND	U	0.50	0.97
PCB 206[NOAA]	ND	x	x	ND	F1	0.38	0.84	ND	U	0.39	0.86	ND	U	0.35	0.78	ND	U	0.44	0.97
PCB 209[NOAA]	ND	x	x	ND	F1	0.52	0.84	ND	U	0.53	0.86	ND	U	0.48	0.78	ND	U	0.60	0.97
Total EPA Region 4 PCBs	17	21.6	22.7	12				12				11				14			
Total NOAA PCBs	12	21.6	22.7	15.4				15.7				14.4				18.2			
PCB-1016	ND	x	x	ND	F2, F1	0.46	1.4	ND	U	0.47	1.5	ND	U	0.42	1.3	ND	U	0.54	1.7
PCB-1221	ND	x	x	ND	U	0.51	1.4	ND	U	0.52	1.5	ND	U	0.46	1.3	ND	U	0.60	1.7
PCB-1232	ND	x	x	ND	U	0.35	1.4	ND	U	0.36	1.5	ND	U	0.32	1.3	ND	U	0.41	1.7
PCB-1242	ND	x	x	ND	U	0.21	1.4	ND	U	0.21	1.5	ND	U	0.19	1.3	ND	U	0.25	1.7
PCB-1248	ND	x	x	ND	U	0.35	1.4	ND	U	0.35	1.5	ND	U	0.31	1.3	ND	U	0.41	1.7
PCB-1254	ND	53.3	x	ND	U	0.49	1.4	ND	U	0.50	1.5	ND	U	0.35	1.3	ND	U	0.50	1.7
PCB-1260	0.79	x	x	ND	F2, F1	0.41	1.4	ND	U	0.42	1.5	ND	U	0.37	1.3	ND	U	0.48	1.7

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TABLE 8 (*continued*)
Analytical Results for Dry Weight PCBs and Aroclors in Sediment Samples

	Connector Channel				Sampit River Channel				GT25-BP-4 Field Split			
	GT25-CC-5				GT25-SR-6				GT25-SF-7			
Analyte	Result µg/kg	Qualifier	MDL	MRL	Result µg/kg	Qualifier	MDL	MRL	Result µg/kg	Qualifier	MDL	MRL
PCB 8[NOAA]	ND	U	0.35	0.98	ND	U	0.26	0.71	ND	U	0.36	0.99
PCB 18[NOAA]	0.89	J	0.61	0.98	ND	U	0.44	0.71	ND	U	0.61	0.99
PCB 28[NOAA]	1.2	--	0.52	0.98	ND	U	0.38	0.71	ND	U	0.53	0.99
PCB 44[NOAA]	0.74	J	0.39	0.98	ND	U	0.28	0.71	ND	U	0.39	0.99
PCB 49	1.1	--	0.43	0.98	ND	U	0.31	0.71	0.54	J	0.43	0.99
PCB 52[NOAA]	1.1	--	0.39	0.98	ND	U	0.29	0.71	0.50	J	0.40	0.99
PCB 66[NOAA]	ND	U	0.72	0.98	ND	U	0.52	0.71	ND	U	0.73	0.99
PCB 77	ND	U	0.85	0.98	ND	U	0.62	0.71	ND	U	0.86	0.99
PCB 87	ND	U	0.55	0.98	ND	U	0.40	0.71	ND	U	0.56	0.99
PCB 101[NOAA]	0.78	J, p	0.27	0.98	ND	U	0.20	0.71	0.51	J, p	0.27	0.99
PCB 105[NOAA]	ND	U	0.64	0.98	ND	U	0.46	0.71	ND	U	0.65	0.99
PCB 118[NOAA]	ND	U	0.66	0.98	ND	U	0.48	0.71	ND	U	0.67	0.99
PCB 126	ND	U	0.62	0.98	ND	U	0.45	0.71	ND	U	0.63	0.99
PCB 128[NOAA]	ND	U	0.37	0.98	ND	U	0.27	0.71	ND	U	0.37	0.99
PCB 138[NOAA]	ND	U	0.40	0.98	ND	U	0.29	0.71	ND	U	0.40	0.99
PCB 153[NOAA]	0.83	J	0.62	0.98	ND	U	0.45	0.71	ND	U	0.63	0.99
PCB 156	ND	U	0.53	0.98	ND	U	0.38	0.71	ND	U	0.53	0.99
PCB 169	ND	U	0.68	0.98	ND	U	0.49	0.71	ND	U	0.69	0.99
PCB 170[NOAA]	ND	U	0.49	0.98	ND	U	0.36	0.71	ND	U	0.50	0.99
PCB 180[NOAA]	ND	U	0.47	0.98	ND	U	0.34	0.71	ND	U	0.47	0.99
PCB 183	ND	U	0.65	0.98	ND	U	0.47	0.71	ND	U	0.65	0.99
PCB 184	ND	U	0.54	0.98	ND	U	0.39	0.71	ND	U	0.55	0.99
PCB 187[NOAA]	ND	U	0.53	0.98	ND	U	0.38	0.71	ND	U	0.53	0.99
PCB 195[NOAA]	ND	U	0.51	0.98	ND	U	0.37	0.71	ND	U	0.52	0.99
PCB 206[NOAA]	ND	U	0.44	0.98	ND	U	0.32	0.71	ND	U	0.45	0.99
PCB 209[NOAA]	ND	U	0.61	0.98	ND	U	0.44	0.71	ND	U	0.61	0.99
Total EPA Region 4 PCBs	17				10				14			
Total NOAA PCBs	23				13.1				18.9			
PCB-1016	ND	U	0.55	1.7	ND	U	0.39	1.2	ND	U	0.55	1.7
PCB-1221	ND	U	0.60	1.7	ND	U	0.42	1.2	ND	U	0.60	1.7
PCB-1232	ND	U	0.41	1.7	ND	U	0.29	1.2	ND	U	0.42	1.7
PCB-1242	ND	U	0.25	1.7	ND	U	0.17	1.2	ND	U	0.25	1.7
PCB-1248	ND	U	0.41	1.7	ND	U	0.29	1.2	ND	U	0.41	1.7
PCB-1254	ND	U	0.51	1.7	ND	U	0.36	1.2	ND	U	0.51	1.7
PCB-1260	ND	U	0.48	1.7	ND	U	0.34	1.2	0.79	J	0.48	1.7

[NOAA] National Oceanic and Atmospheric Administration PCB congeners (NOAA 1998, Table 5-6 of SERIM).

Bolded values meet or exceed the TEL and (or) ERL.

For calculating total EPA Region 4 PCBs and total NOAA PCBs, U-qualified results use the MDL and J-qualified results use the value reported by the laboratory (See SERIM Section 7.3 for details).

Data qualifiers and acronyms are defined at the front of the tables section.

Sources: Results from Eurofins TestAmerica; TEL and ERL values from Buchman (2008)
Compiled by: ANAMAR Environmental Consulting, Inc.

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TABLE 9 (*continued*)
Analytical Results for Dry Weight Dioxins and Furans in Sediment Samples

					Steel Mill Channel										Bypass Channel									
				Sample ID:	GT25-SM-1					GT25-SM-2					GT25-BP-3					GT25-BP-4				
Analyte	Maximum Conc. ng/kg	TEL ng/kg	AET ng/kg	TEF	Result ng/kg	Qualifier	EDL	MRL	TEQ	Result ng/kg	Qualifier	EDL	MRL	TEQ	Result ng/kg	Qualifier	EDL	MRL	TEQ	Result ng/kg	Qualifier	EDL	MRL	TEQ
2,3,7,8-TCDD	1.0	x	x	1	0.30	J I	0.066	3.3	0.30	0.45	J I	0.054	3.5	0.45	0.59	J	0.0095	3.0	0.59	1.0	J	0.017	4.0	1.0
1,2,3,7,8-PeCDD	2.3	x	x	1	1.6	J I	0.11	17	1.6	1.6	J	0.098	17	1.6	1.1	J	0.027	15	1.1	2.3	J	0.084	20	2.3
1,2,3,6,7,8-HxCDD	6.8	x	x	0.1	3.5	J B	0.29	17	0.35	3.9	J B	0.43	17	0.39	3.4	J B	0.13	15	0.34	6.8	J B	0.12	20	0.68
1,2,3,4,7,8-HxCDD	3.6	x	x	0.1	1.7	J B	0.30	17	0.17	2.0	J I B	0.43	17	0.20	ND	--	0.14	15	0.014	3.6	J B	0.12	20	0.36
1,2,3,7,8,9-HxCDD	11	x	x	0.1	5.9	J B	0.31	17	0.59	7.5	J B	0.45	17	0.75	5.5	J B	0.14	15	0.55	11	J B	0.13	20	1.1
1,2,3,4,6,7,8-HpCDD	220	x	x	0.01	120	B	0.26	17	1.2	140	B	0.25	17	1.4	110	B	0.13	15	1.1	220	B	0.26	20	2.2
OCDD	4300	x	x	0.0003	2200	B	0.23	50	0.66	2800	B	0.18	52	0.84	2100	B	0.10	45	0.63	4300	B	0.18	60	1.29
2,3,7,8-TCDF	3.8	x	x	0.1	0.97	J	0.084	3.3	0.097	1.4	J	0.055	3.5	0.14	1.6	J	0.011	3.0	0.16	3.6	J I	0.038	4.0	0.36
1,2,3,7,8-PeCDF	1.3	x	x	0.03	0.61	J B	0.053	17	0.0183	0.89	J B	0.053	17	0.027	0.46	J B	0.024	15	0.0138	1.3	J B	0.035	20	0.039
2,3,4,7,8-PeCDF	2.2	x	x	0.3	0.68	J I	0.044	17	0.204	0.74	J	0.044	17	0.22	0.94	J I	0.021	15	0.282	2.2	J	0.033	20	0.66
1,2,3,6,7,8-HxCDF	1.8	x	x	0.1	0.58	J I B	0.041	17	0.058	0.48	J B	0.028	17	0.048	0.66	J I B	0.028	15	0.066	1.8	J B	0.080	20	0.18
1,2,3,7,8,9-HxCDF	0.49	x	x	0.1	ND	--	0.046	17	0.0046	ND	--	0.031	17	0.003	0.26	J B	0.031	15	0.026	0.49	J B	0.093	20	0.049
1,2,3,4,7,8-HxCDF	1.9	x	x	0.1	0.49	J I B	0.043	17	0.049	0.69	J B	0.029	17	0.069	0.52	J B	0.028	15	0.052	1.9	J B	0.078	20	0.19
2,3,4,6,7,8-HxCDF	2	x	x	0.1	0.60	J B	0.040	17	0.06	0.76	J B	0.027	17	0.076	0.73	J B	0.027	15	0.073	2.0	J B	0.075	20	0.20
1,2,3,4,6,7,8-HpCDF	21	x	x	0.01	3.6	J B	0.066	17	0.036	4.6	J B	0.073	17	0.046	6.3	J B	0.063	15	0.063	21	B	0.30	20	0.21
1,2,3,4,7,8,9-HpCDF	1.8	x	x	0.01	0.66	J B	0.097	17	0.0066	0.33	J I B	0.081	17	0.003	0.56	J B	0.078	15	0.0056	1.6	J I B	0.31	20	0.016
OCDF	38	x	x	0.0003	9.8	J B	0.057	33	0.0029	11	J B	0.058	35	0.003	16	J B	0.039	30	0.0048	38	J B	0.099	40	0.011
Total TEQs (ND=0.5 X EDL)	**10.8**	0.85	3.6	x					5.4					6.3					5.1					10.8
Total TEQs (ND=0)	**10.8**	0.85	3.6	x					5.4					6.3					5.1					10.8
TCDD, Total	37	x	x	x	20	I	0.066	3.3		23	I	0.054	3.5		32	--	0.0095	3.0		32	--	0.017	4.0	
PeCDD, Total	59	x	x	x	42	I	0.11	17		54	--	0.098	17		43	--	0.027	15		59	--	0.084	20	
HxCDD, Total	320	x	x	x	210	B	0.30	17		260	I B	0.44	17		180	B	0.14	15		320	B	0.12	20	
HpCDD, Total	760	x	x	x	420	B	0.26	17		520	B	0.25	17		380	B	0.13	15		760	B	0.26	20	
TCDF, Total	29	x	x	x	3.2	J	0.084	3.3		4.3	--	0.055	3.5		8.2	--	0.011	3.0		17	I	0.038	4.0	
PeCDF, Total	16	x	x	x	4.1	J I B	0.048	17		2.9	J B	0.048	17		6.7	J I B	0.022	15		12	J B	0.034	20	
HxCDF, Total	29	x	x	x	6.5	J I B	0.042	17		8.1	J B	0.029	17		11	J I B	0.028	15		29	B	0.081	20	
HpCDF, Total	53	x	x	x	11	J B	0.092	17		13	J I B	0.077	17		18	B	0.070	15		53	I B	0.31	20	

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TABLE 9 (*continued*)
Analytical Results for Dry Weight Dioxins and Furans in Sediment Samples

	Connector Channel					Sampit River Channel					GT25-BP-4 Field Split				
	GT25-CC-5					GT25-SR-6					GT25-SF-7				
Analyte	Result ng/kg	Qualifier	EDL	MRL	TEQ	Result ng/kg	Qualifier	EDL	MRL	TEQ	Result ng/kg	Qualifier	EDL	MRL	TEQ
2,3,7,8-TCDD	0.85	J	0.018	4.0	0.85	0.40	J I	0.0091	2.8	0.0091	0.83	J	0.0099	4.0	0.83
1,2,3,7,8-PeCDD	2.1	J	0.050	20	2.1	1.5	J	0.029	14	1.5	1.7	J I	0.055	20	1.7
1,2,3,6,7,8-HxCDD	6.7	J B	0.11	20	0.67	5.9	J B	0.083	14	0.59	5.7	J B	0.083	20	0.57
1,2,3,4,7,8-HxCDD	ND	--	0.10	20	0.010	3.3	J B	0.081	14	0.33	ND	--	0.081	20	0.0081
1,2,3,7,8,9-HxCDD	8.4	J B	0.10	20	0.84	10	J B	0.088	14	1.0	8.0	J B	0.080	20	0.8
1,2,3,4,6,7,8-HpCDD	190	B	0.23	20	1.9	190	B	0.19	14	1.9	170	B	0.18	20	1.7
OCDD	3400	B	0.15	60	1.02	4000	B	0.11	42	1.2	3200	B	0.13	59	0.96
2,3,7,8-TCDF	3.8	J	0.030	4.0	0.38	0.73	J I	0.018	2.8	0.073	2.6	J	0.021	4.0	0.26
1,2,3,7,8-PeCDF	0.94	J I B	0.042	20	0.0282	0.36	J B	0.025	14	0.011	0.61	J B	0.034	20	0.0183
2,3,4,7,8-PeCDF	2.2	J	0.039	20	0.66	0.52	J	0.022	14	0.156	1.7	J	0.030	20	0.51
1,2,3,6,7,8-HxCDF	1.1	J B	0.043	20	0.11	0.55	J B	0.031	14	0.055	1.0	J B	0.039	20	0.10
1,2,3,7,8,9-HxCDF	0.31	J B	0.049	20	0.031	0.15	J B	0.030	14	0.015	0.29	J B	0.041	20	0.029
1,2,3,4,7,8-HxCDF	1.1	J B	0.044	20	0.11	0.44	J B	0.031	14	0.044	0.98	J B	0.042	20	0.098
2,3,4,6,7,8-HxCDF	1.3	J I B	0.044	20	0.13	0.62	J B	0.030	14	0.062	1.4	J B	0.037	20	0.14
1,2,3,4,6,7,8-HpCDF	12	J B	0.19	20	0.12	5.9	J B	0.11	14	0.059	14	J B	0.15	20	0.14
1,2,3,4,7,8,9-HpCDF	0.88	J I B	0.25	20	0.0088	0.64	J I B	0.11	14	0.0064	1.3	J I B	0.17	20	0.013
OCDF	25	J B	0.091	40	0.0075	12	J B	0.054	14	0.0036	30	J B	0.058	40	0.009
Total TEQs (ND=0.5 X EDL)					9.0					7.0					7.9
Total TEQs (ND=0)					9.0					7.0					7.9
TCDD, Total	33	--	0.018	4.0		37	I	0.0091	2.8		35	--	0.0099	4.0	
PeCDD, Total	53	--	0.050	20		54	--	0.029	14		46	I	0.055	20	
HxCDD, Total	260	B	0.10	20		320	B	0.084	14		260	B	0.082	20	
HpCDD, Total	740	B	0.23	20		690	B	0.19	14		620	B	0.18	20	
TCDF, Total	29	--	0.030	4.0		4.2	I	0.018	2.8		11	--	0.021	4.0	
PeCDF, Total	16	J I B	0.041	20		4.1	J B	0.023	14		12	J B	0.032	20	
HxCDF, Total	19	J I B	0.045	20		8.3	J B	0.030	14		16	J B	0.04	20	
HpCDF, Total	32	I B	0.22	20		15	I B	0.11	14		38	I B	0.16	20	

[1] Total TEQs are calculated using the EDL when the result is given as ND (Non-detect). J-qualified results use the value reported by the laboratory for calculating total TEQs. These values are multiplied by the TEF prior to summing.

Bolded values meet or exceed the AET and (or) TEL.

Data qualifiers and acronyms are defined at the front of the tables section.

Sources: Results from Eurofins TestAmerica. TEL and AET values from Buchman (2008); and TEF values from Van den Berg et al. (2006)
Compiled by: ANAMAR Environmental Consulting, Inc

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TABLE 10 (*continued*)
Analytical Results for Metals, TOC, TSS, and Tributyltin in Site Water and Elutriates Generated from Sediment

Analyte	Maximum Conc. µg/L (Total)	Maximum Conc. µg/L (Dissolved)	SC CMC µg/L	CMC µg/L	Sample ID:	GT25-SW (Total)				GT25-SW (Dissolved)				Steel Mill Channel: GT25-SM-1 (Total)				GT25-SM-1 (Dissolved)				GT25-SM-2 (Total)				GT25-SM-2 (Dissolved)				Bypass Channel: GT25-BP-3 (Total)				GT25-BP-3 (Dissolved)			
						Result µg/L	Qualifier	MDL	MRL	Result µg/L	Qualifier	MDL	MRL	Result µg/L	Qualifier	MDL	MRL	Result µg/L	Qualifier	MDL	MRL	Result µg/L	Qualifier	MDL	MRL	Result µg/L	Qualifier	MDL	MRL	Result µg/L	Qualifier	MDL	MRL	Result µg/L	Qualifier	MDL	MRL
Metals																																			
Antimony	0.64	0.67	x	x		0.22	J	0.20	1.0	ND	--	0.20	1.0	0.40	J	0.20	1.0	0.34	J	0.20	1.0	0.35	J	0.20	1.0	0.22	J	0.20	1.0	0.32	J	0.20	1.0	0.26	J	0.2	1.0
Arsenic	68	37	69	69		0.73	J	0.68	2.0	0.88	J	0.68	2.0	64	--	0.68	2.0	37	--	0.68	2.0	68	--	0.68	2.0	34	--	0.68	2.0	41	--	0.68	2.0	11	--	0.68	2.0
Cadmium	0.15	ND	43	40		ND	--	0.15	0.50	ND	--	0.15	0.50	ND	U	0.15	0.50	ND	U	0.15	0.50	ND	U	0.15	0.50	ND	U	0.15	0.50	ND	U	0.15	0.50	ND	U	0.15	0.5
Chromium	36	4.80	1100	1100		ND	--	0.55	2.0	ND	--	0.55	2.0	29	--	0.55	2.0	4.8	--	0.55	2.0	22	--	0.55	2.0	0.84	J	0.55	2.0	24	--	0.55	2.0	ND	U	0.55	2.0
Copper	9.6	1.10	5.8	4.8		1.8	--	0.36	1.0	1.1	--	0.36	1.0	9.0	--	0.36	1.0	ND	U	0.36	1.0	6.9	--	0.36	1.0	0.59	J	0.36	1.0	7.2	--	0.36	1.0	0.38	J	0.36	1.0
Lead	9.7	ND	220	210		0.38	J	0.12	0.50	ND	--	0.12	0.50	5.3	B	0.12	0.50	ND	U	0.12	0.50	3.9	B	0.12	0.50	ND	U	0.12	0.50	5.3	B	0.12	0.50	ND	U	0.12	0.5
Mercury	ND	ND	2.1	1.8		ND	--	0.08	0.20	ND	--	0.08	0.20	ND	U	0.079	0.20	ND	U	0.08	0.20	ND	U	0.08	0.20	ND	U	0.08	0.20	ND	U	0.079	0.20	ND	U	0.08	0.20
Nickel	11	1.50	75	74		1.8	--	0.28	1.0	1.5	--	0.40	1.0	8.8	--	0.40	1.0	0.81	J	0.40	1.0	6.6	--	0.40	1.0	0.5	J	0.40	1.0	6.8	--	0.40	1.0	ND	U	0.4	1.0
Selenium	0.76	0.58	290	290		ND	--	0.28	1.0	ND	--	0.28	1.0	0.76	J	0.28	1.0	0.48	J	0.28	1.00	0.53	J	0.28	1.0	0.36	J	0.28	1.0	0.56	J	0.28	1.0	0.34	J	0.3	1
Silver	ND	ND	2.3	1.9		ND	--	0.10	0.50	ND	--	0.10	0.50	ND	U	0.10	0.50	ND	U	0.10	0.50	ND	U	0.10	0.50	ND	U	0.10	0.50	ND	U	0.10	0.50	ND	U	0.1	0.5
Zinc	84	5.10	95	90		ND	*+	4.0	10	5.3	J	4.0	10.00	46	--	4.0	10	4.0	J B	4.0	10	38	--	4.0	10	ND	U	4.0	10	41	--	4.0	10	4.2	J B	4.0	10
Others																																					
Analyte	**Maximum Conc. mg/L (Total)**	**Maximum Conc. mg/L (Dissolved)**	**SC CMC mg/L**	**CMC mg/L**		**Result mg/L**	**Qualifier**	**MDL**	**MRL**	**Result mg/L**	**Qualifier**	**MDL**	**MRL**	**Result mg/L**	**Qualifier**	**MDL**	**MRL**	**Result mg/L**	**Qualifier**	**MDL**	**MRL**	**Result mg/L**	**Qualifier**	**MDL**	**MRL**	**Result mg/L**	**Qualifier**	**MDL**	**MRL**	**Result mg/L**	**Qualifier**	**MDL**	**MRL**	**Result mg/L**	**Qualifier**	**MDL**	**MRL**
Total Organic Carbon	41	39	x	x		5.6	--	0.51	1	4.7	--	0.51	1.0	41	--	0.51	1.0	39	--	0.51	1.0	35	--	0.51	1.0	34	--	0.51	1.0	24	--	0.51	1.0	23	--	0.51	1.0
Total Suspended Solids	620		x	x		14	--	0.74	0.74					590	--	13	13					480	--	10	10					430	--	10	10				
Analyte	**Maximum Conc. µg/L (Total)**	**Maximum Conc. µg/L (Dissolved)**	**SC CMC µg/L**	**CMC µg/L**		**Result µg/L**	**Qualifier**	**MDL**	**MRL**	**Result µg/L**	**Qualifier**	**MDL**	**MRL**	**Result µg/L**	**Qualifier**	**MDL**	**MRL**	**Result µg/L**	**Qualifier**	**MDL**	**MRL**	**Result µg/L**	**Qualifier**	**MDL**	**MRL**	**Result µg/L**	**Qualifier**	**MDL**	**MRL**	**Result µg/L**	**Qualifier**	**MDL**	**MRL**	**Result µg/L**	**Qualifier**	**MDL**	**MRL**
Tributyltin	ND	ND	0.37	0.42		ND	--	0.04	0.042	ND	--	0.04	0.042	ND	U	0.046	0.046	ND	U	0.05	0.046	ND	U	0.05	0.046	ND	U	0.05	0.046	ND	U	0.044	0.044	ND	U	0.05	0.046

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TABLE 10 (*continued*)
Analytical Results for Metals, TOC, TSS, and Tributyltin in Site Water and Elutriates Generated from Sediment

Sample ID:	Bypass Channel: GT25-BP-4 (Total)					Bypass Channel: GT25-BP-4 (Dissolved)					Connector Channel: GT25-CC-5 (Total)					Connector Channel: GT25-CC-5 (Dissolved)					Sampit River Channel: GT25-SR-6 (Total)					Sampit River Channel: GT25-SR-6 (Dissolved)					GT25-BP-4 Field Split: GT25-SF-7 (Total)					GT25-BP-4 Field Split: GT25-SF-7 (Dissolved)			
Analyte	**Result µg/L**	**Qualifier**	**MDL**	**MRL**		**Result µg/L**	**Qualifier**	**MDL**	**MRL**		**Result µg/L**	**Qualifier**	**MDL**	**MRL**		**Result µg/L**	**Qualifier**	**MDL**	**MRL**		**Result µg/L**	**Qualifier**	**MDL**	**MRL**		**Result µg/L**	**Qualifier**	**MDL**	**MRL**		**Result µg/L**	**Qualifier**	**MDL**	**MRL**		**Result µg/L**	**Qualifier**	**MDL**	**MRL**
Metals																																					
Antimony	ND	U	0.20	1.0		0.30	J	0.20	1.0		ND	U	0.20	1.0		ND	U	0.20	1.0		0.64	J	0.20	1.0		0.67	J	0.20	1.0						0.20	J	0.20	1.0
Arsenic	32	--	0.68	2.0		8.5	--	0.68	2.0		31	--	0.68	2.0		6.3	--	0.68	2.0		47	--	0.68	2.0		15	--	0.68	2.0						5.9	--	0.68	2.0
Cadmium	0.15	J	0.15	0.50		ND	U	0.15	0.50		ND	U	0.15	0.50		ND	U	0.15	0.50		ND	U	0.15	0.50		ND	U	0.15	0.50						ND	U	0.15	0.50
Chromium	15	--	0.55	2.0		0.88	J	0.55	2.0		17	--	0.55	2.0		ND	U	0.55	2.0		36	--	0.55	2.0		0.73	J	0.55	2.0						ND	U	0.55	2.0
Copper	5.2	--	0.36	1.0		1.1	--	0.36	1.0		8.4	--	0.36	1.0		ND	U	0.36	1.0		9.5	--	0.36	1.0		0.88	J	0.36	1.0						0.45	J	0.36	1.0
Lead	9.5	--	0.12	0.50		ND	U	0.12	0.50		9.7	--	0.12	0.50		ND	U	0.12	0.50		5.3	B	0.12	0.50		ND	U	0.12	0.50						ND	U	0.12	0.50
Mercury	ND	U	0.079	0.20		ND	U	0.079	0.20		ND	U	0.079	0.20		ND	U	0.079	0.20		ND	U	0.079	0.20		ND	U	0.079	0.20						ND	U	0.079	0.20
Nickel	3.7	--	0.40	1.0		1.0	--	0.40	1.0		4.8	--	0.40	1.0		0.41	J	0.40	1.0		11	--	0.40	1.0		1.4	--	0.40	1.0						0.49	J	0.40	1.0
Selenium	0.34	J	0.28	1.0		0.47	J	0.28	1.0		0.38	J	0.28	1.0		0.39	J	0.28	1.0		0.70	J	0.28	1.0		0.58	J	0.28	1.0						0.29	J	0.28	1.0
Silver	ND	U	0.10	0.50		ND	U	0.10	0.50		ND	U	0.10	0.50		ND	U	0.10	0.50		ND	U	0.10	0.50		ND	U	0.10	0.50						ND	U	0.10	0.50
Zinc	62	B	4.0	10		6.1	J	4.0	10		94	B	4.0	10		ND	U	4.0	10		53	--	4.0	10		ND	U	4.0	10						ND	U	4.0	10
Others																																					
Analyte	**Result mg/L**	**Qualifier**	**MDL**	**MRL**		**Result mg/L**	**Qualifier**	**MDL**	**MRL**		**Result mg/L**	**Qualifier**	**MDL**	**MRL**		**Result mg/L**	**Qualifier**	**MDL**	**MRL**		**Result mg/L**	**Qualifier**	**MDL**	**MRL**		**Result mg/L**	**Qualifier**	**MDL**	**MRL**		**Result mg/L**	**Qualifier**	**MDL**	**MRL**		**Result mg/L**	**Qualifier**	**MDL**	**MRL**
Total Organic Carbon	22	F1	0.51	1.0		19	F1	0.51	1.0		25	--	0.51	1.0		23	--	0.51	1.0		34	--	0.51	1.0		35	--	0.51	1.0						18	--	0.51	1.0
Total Suspended Solids	350	--	10	10							350	--	10	10							620	--	10	10														
Analyte	**Result µg/L**	**Qualifier**	**MDL**	**MRL**		**Result µg/L**	**Qualifier**	**MDL**	**MRL**		**Result µg/L**	**Qualifier**	**MDL**	**MRL**		**Result µg/L**	**Qualifier**	**MDL**	**MRL**		**Result µg/L**	**Qualifier**	**MDL**	**MRL**		**Result µg/L**	**Qualifier**	**MDL**	**MRL**		**Result µg/L**	**Qualifier**	**MDL**	**MRL**		**Result µg/L**	**Qualifier**	**MDL**	**MRL**
Tributyltin	ND	U	0.046	0.046		ND	U	0.044	0.044		ND	U	0.044	0.044		ND	U	0.044	0.044		ND	U	0.044	0.044		ND	U	0.044	0.044						ND	*1	0.046	0.046

Bolded values meet or exceed the SC CMC and/or CMC.
Non-detect (ND) = The analyte was not detected at or above the MDL.
Data qualifiers and acronyms are defined at the front of the tables section.

Sources: Results from Eurofins TestAmerica. CMC values taken from USEPA (2015). SC CMC values from SCDHEC (2014).
Compiled by: ANAMAR Environmental Consulting, Inc.

TABLE 11 (*continued*)
Analytical Results for PAHs in Site Water and Elutriates Generated from Sediment Samples

Analyte	Maximum Conc. µg/L (Total)	Maximum Conc. µg/L (Dissolved)	SC CMC µg/L	CMC µg/L	Sample ID:	GT25-SW (Total)				GT25-SW (Dissolved)				Steel Mill Channel										Bypass Channel					
														GT25-SM-1 (Total)				GT25-SM-1 (Dissolved)				GT25-SM-2 (Total)				GT25-SM-2 (Dissolved)				GT25-BP-3 (Total)				GT25-BP-3 (Dissolved)			
						Result µg/L	Qualifier	MDL	MRL	Result µg/L	Qualifier	MDL	MRL	Result µg/L	Qualifier	MDL	MRL	Result µg/L	Qualifier	MDL	MRL	Result µg/L	Qualifier	MDL	MRL	Result µg/L	Qualifier	MDL	MRL	Result µg/L	Qualifier	MDL	MRL	Result µg/L	Qualifier	MDL	MRL
1-Methylnaphthalene[LMW]	0.60	0.21	x	x		ND	U	0.053	0.18	ND	U	0.053	0.18	ND	U	0.057	0.19	0.08	J	0.058	0.20	ND	U	0.058	0.20	0.076	J	0.058	0.20	0.15	J	0.057	0.19	ND	U	0.056	0.19
2-Methylnaphthalene[LMW]	1.1	0.25	x	x		ND	U	0.059	0.19	0.098	J	0.056	0.18	ND	U	0.063	0.19	0.12	J	0.065	0.20	0.088	J	0.064	0.20	0.14	J	0.065	0.20	0.28	--	0.063	0.19	0.082	J	0.061	0.19
Acenaphthene[LMW]	0.41	0.34	x	x		ND	U	0.062	0.18	ND	U	0.061	0.18	ND	U	0.066	0.19	0.17	J	0.068	0.20	0.099	J	0.067	0.20	0.13	J	0.068	0.20	0.41	--	0.066	0.19	0.18	J	0.064	0.19
Acenaphthylene	0.057	0.054	x	x		ND	U	0.062	0.18	ND	U	0.061	0.18	ND	U	0.066	0.19	ND	U	0.068	0.20	ND	U	0.067	0.20	ND	U	0.068	0.20	ND	U	0.066	0.19	ND	U	0.064	0.19
Anthracene[LMW]	ND	0.085	x	x		ND	U	0.047	0.18	0.085	J	0.046	0.18	ND	U	0.049	0.19	ND	U	0.051	0.20	ND	U	0.051	0.20	ND	U	0.051	0.20	ND	U	0.049	0.19	ND	U	0.049	0.19
Benzo(a)anthracene[HMW]	ND	0.1	x	x		ND	U	0.071	0.18	0.10	J	0.071	0.18	ND	U	0.076	0.19	ND	U	0.078	0.20	ND	U	0.077	0.20	ND	U	0.078	0.20	ND	U	0.076	0.19	ND	U	0.074	0.19
Benzo(a)pyrene[HMW]	ND	ND	x	x		ND	U	0.050	0.18	ND	U	0.050	0.18	ND	U	0.054	0.19	ND	U	0.055	0.20	ND	U	0.055	0.20	ND	U	0.055	0.20	ND	U	0.054	0.19	ND	U	0.052	0.19
Benzo(b)fluoranthene	ND	ND	x	x		ND	U	0.092	0.18	ND	U	0.092	0.18	ND	U	0.098	0.19	ND	U	0.10	0.20	ND	U	0.10	0.20	ND	U	0.10	0.20	ND	U	0.098	0.19	ND	U	0.096	0.19
Benzo(g,h,i)perylene	ND	ND	x	x		ND	U	0.066	0.18	ND	U	0.065	0.18	ND	U	0.070	0.19	ND	U	0.072	0.20	ND	U	0.071	0.20	ND	U	0.072	0.20	ND	U	0.070	0.19	ND	U	0.068	0.19
Benzo(k)fluoranthene	ND	ND	x	x		ND	U	0.084	0.18	ND	U	0.083	0.18	ND	U	0.089	0.19	ND	U	0.092	0.20	ND	U	0.091	0.20	ND	U	0.092	0.20	ND	U	0.089	0.19	ND	U	0.087	0.19
Chrysene[HMW]	ND	0.12	x	x		ND	U	0.077	0.18	0.12	J	0.076	0.18	ND	U	0.082	0.19	ND	U	0.084	0.20	ND	U	0.084	0.20	ND	U	0.084	0.20	ND	U	0.082	0.19	ND	U	0.080	0.19
Dibenzo(a,h)anthracene[HMW]	ND	ND	x	x		ND	U	0.069	0.18	ND	U	0.068	0.18	ND	U	0.073	0.19	ND	U	0.075	0.20	ND	U	0.074	0.20	ND	U	0.075	0.20	ND	U	0.073	0.19	ND	U	0.071	0.19
Fluoranthene[HMW]	0.07	0.66	x	x		ND	U	0.057	0.18	0.66	U	0.057	0.18	ND	U	0.061	0.19	ND	U	0.063	0.20	ND	U	0.062	0.20	ND	U	0.063	0.20	0.070	J	0.061	0.19	ND	U	0.059	0.19
Fluorene[LMW]	0.31	0.28	x	x		ND	U	0.066	0.18	ND	U	0.065	0.18	ND	U	0.070	0.19	0.082	J	0.072	0.20	ND	U	0.071	0.20	ND	U	0.072	0.20	0.31	--	0.070	0.19	ND	U	0.068	0.19
Indeno(1,2,3-cd)pyrene	ND	ND	x	x		ND	U	0.091	0.18	ND	U	0.090	0.18	ND	U	0.096	0.19	ND	U	0.099	0.20	ND	U	0.098	0.20	ND	U	0.099	0.20	ND	U	0.096	0.19	ND	U	0.094	0.19
Naphthalene[LMW]	1.2	0.33	x	x		ND	U	0.056	0.18	0.098	J	0.056	0.18	0.12	J	0.060	0.19	0.19	J	0.061	0.20	0.20	--	0.061	0.20	0.21	--	0.061	0.20	0.64	--	0.06	0.19	0.18	J	0.058	0.19
Phenanthrene[LMW]	0.44	0.54	x	x		ND	U	0.15	0.18	0.54	U	0.15	0.18	ND	U	0.16	0.19	ND	U	0.16	0.20	ND	U	0.16	0.20	ND	U	0.16	0.20	0.44	--	0.16	0.19	ND	U	0.16	0.19
Pyrene[HMW]	ND	0.33	x	x		ND	U	0.051	0.18	0.33	U	0.051	0.18	ND	U	0.055	0.19	ND	U	0.056	0.20	ND	U	0.056	0.20	ND	U	0.056	0.20	ND	U	0.055	0.19	ND	U	0.053	0.19
Total LMW PAHs	3.47	1.92	x	x		0.49				1.00				0.59				0.85				0.73				0.84				2.28				0.77			
Total HMW PAHs	0.44	1.33	x	x		0.44				1.33				0.40				0.41				0.41				0.41				0.41				0.39			
Total PAHs	4.28	2.84	x	x		1.25				2.7				1.4				1.7				1.6				1.7				3.1				1.6			

TABLE 11 (*continued*)
Analytical Results for PAHs in Site Water and Elutriates Generated from Sediment Samples

Analyte	Sample ID:	Bypass Channel								Connector Channel								Sampit River Channel								GT25-BP-4 Field Split				GT25-BP-4 Field Split			
		GT25-BP-4 (Total)				GT25-BP-4 (Dissolved)				GT25-CC-5 (Total)				GT25-CC-5 (Dissolved)				GT25-SR-6 (Total)				GT25-SR-6 (Dissolved)				GT25-SF-7 (Total)				GT25-SF-7 (Dissolved)			
		Result µg/L	Qualifier	MDL	MRL	Result µg/L	Qualifier	MDL	MRL	Result µg/L	Qualifier	MDL	MRL	Result µg/L	Qualifier	MDL	MRL	Result µg/L	Qualifier	MDL	MRL	Result µg/L	Qualifier	MDL	MRL	Result µg/L	Qualifier	MDL	MRL	Result µg/L	Qualifier	MDL	MRL
1-Methylnaphthalene[LMW]		0.068	J	0.060	0.20	ND	U	0.056	0.19	0.60	--	0.057	0.19	0.070	J	0.061	0.21	0.060	J	0.057	0.19	0.21	--	0.057	0.19					ND	--	0.058	0.20
2-Methylnaphthalene[LMW]		0.11	J	0.067	0.20	0.10	J	0.062	0.19	1.1	--	0.063	0.19	0.12	J	0.067	0.21	0.10	J	0.063	0.19	0.25	--	0.063	0.19					0.067	J	0.064	0.20
Acenaphthene[LMW]		0.12	J	0.070	0.20	0.17	J	0.065	0.19	0.23	--	0.066	0.19	0.16	J	0.071	0.21	ND	U	0.066	0.19	0.34	--	0.066	0.19					0.12	J	0.067	0.20
Acenaphthylene		ND	U	0.070	0.20	ND	U	0.065	0.19	0.057	J	0.066	0.19	ND	U	0.071	0.21	ND	U	0.066	0.19	0.054	J	0.066	0.19					ND	--	0.067	0.20
Anthracene[LMW]		ND	U	0.053	0.20	ND	U	0.049	0.19	ND	U	0.049	0.19	ND	U	0.053	0.21	ND	U	0.049	0.19	ND	U	0.049	0.19					ND	--	0.051	0.20
Benzo(a)anthracene[HMW]		ND	U	0.081	0.20	ND	U	0.075	0.19	ND	U	0.076	0.19	ND	U	0.082	0.21	ND	U	0.076	0.19	ND	U	0.076	0.19					ND	--	0.077	0.20
Benzo(a)pyrene[HMW]		ND	U	0.057	0.20	ND	U	0.053	0.19	ND	U	0.054	0.19	ND	U	0.058	0.21	ND	U	0.054	0.19	ND	U	0.054	0.19					ND	--	0.055	0.20
Benzo(b)fluoranthene		ND	U	0.10	0.20	ND	U	0.097	0.19	ND	U	0.098	0.19	ND	U	0.11	0.21	ND	U	0.098	0.19	ND	U	0.098	0.19					ND	--	0.10	0.20
Benzo(g,h,i)perylene		ND	U	0.074	0.20	ND	U	0.069	0.19	ND	U	0.070	0.19	ND	U	0.075	0.21	ND	U	0.070	0.19	ND	U	0.070	0.19					ND	--	0.071	0.20
Benzo(k)fluoranthene		ND	U	0.085	0.20	ND	U	0.080	0.19	ND	U	0.089	0.19	ND	U	0.096	0.21	ND	U	0.089	0.19	ND	U	0.089	0.19					ND	--	0.091	0.20
Chrysene[HMW]		ND	U	0.087	0.20	ND	U	0.081	0.19	ND	U	0.082	0.19	ND	U	0.088	0.21	ND	U	0.082	0.19	ND	U	0.082	0.19					ND	--	0.084	0.20
Dibenzo(a,h)anthracene[HMW]		ND	U	0.077	0.20	ND	U	0.072	0.19	ND	U	0.073	0.19	ND	U	0.078	0.21	ND	U	0.073	0.19	ND	U	0.073	0.19					ND	--	0.074	0.20
Fluoranthene[HMW]		ND	U	0.065	0.20	ND	U	0.061	0.19	ND	U	0.061	0.19	ND	U	0.065	0.21	ND	U	0.061	0.19	0.064	J	0.061	0.19					ND	--	0.062	0.20
Fluorene[LMW]		0.081	J	0.074	0.20	0.074	J	0.069	0.19	0.13	J	0.070	0.19	0.085	J	0.075	0.21	ND	U	0.070	0.19	0.26	--	0.070	0.19					ND	--	0.071	0.20
Indeno(1,2,3-cd)pyrene		ND	U	0.091	0.20	ND	U	0.085	0.19	ND	U	0.086	0.19	ND	U	0.092	0.21	ND	U	0.086	0.19	ND	U	0.086	0.19					ND	--	0.088	0.20
Naphthalene[LMW]		0.17	J	0.063	0.20	0.16	J	0.059	0.19	1.2	--	0.06	0.19	0.16	J	0.064	0.21	0.19	--	0.060	0.19	0.33	--	0.060	0.19					0.11	J	0.061	0.20
Phenanthrene[LMW]		ND	U	0.17	0.20	ND	U	0.16	0.19	ND	U	0.160	0.19	ND	U	0.17	0.21	ND	U	0.16	0.19	0.46	--	0.16	0.19					ND	--	0.16	0.20
Pyrene[HMW]		ND	U	0.058	0.20	ND	U	0.054	0.19	ND	U	0.055	0.19	ND	U	0.059	0.21	ND	U	0.055	0.19	0.14	J	0.055	0.19					ND	--	0.056	0.20
Total LMW PAHs		0.77				0.77				3.47				0.82				0.70				1.92								0.64			
Total HMW PAHs		0.43				0.40				0.40				0.43				0.40				0.49								0.41			
Total PAHs		1.6				1.6				4.3				1.7				1.5				2.8								1.5			

LMW Low molecular weight PAHs (NOAA 1999).
HMW High molecular weight PAHs (NOAA 1999).
Non-detect (ND) = The analyte was not detected at or above the MDL. Non-detect results use the MDL for calculating the total PAHs. (J-qualified results use the value reported by the laboratory for calculating total PAHs.)
Data qualifiers and acronyms are defined at the front of the tables section.

Sources: Results from Eurofins TestAmerica; There are no applicable CMC values in USEPA (2015).
Compiled by: ANAMAR Environmental Consulting, Inc.

TABLE 12 (*continued*)
Analytical Results for Pesticides in Site Water and Elutriates Generated from Sediment Samples

Analyte	Maximum Conc. µg/L (Total)	Maximum Conc. µg/L (Dissolved)	Sample ID: SC CMC µg/L	SC CMC µg/L	GT25-SW (Total) Result µg/L	Qualifier	MDL	MRL	GT25-SW (Dissolved) Result µg/L	Qualifier	MDL	MRL	Steel Mill Channel: GT25-SM-1 (Total) Result µg/L	Qualifier	MDL	MRL	GT25-SM-1 (Dissolved) Result µg/L	Qualifier	MDL	MRL	GT25-SM-3 (Total) Result µg/L	Qualifier	MDL	MRL	GT25-SM-2 (Dissolved) Result µg/L	Qualifier	MDL	MRL	Bypass Channel: GT25-BP-3 (Total) Result µg/L	Qualifier	MDL	MRL	GT25-BP-3 (Dissolved) Result µg/L	Qualifier	MDL	MRL
Aldrin	ND	ND	1.3	1.3	ND	H	0.00034	0.0013	ND	U	0.00035	0.0013	ND	U	0.00035	0.0013	ND	U	0.00036	0.0013	ND	U	0.00035	0.0013	ND	U	0.00035	0.0013	ND	U	0.00035	0.0013	ND	U	0.00035	0.0013
Chlordane (technical)	ND	ND	0.09	0.09	ND	H	0.0070	0.012	ND	U	0.0073	0.013	ND	U	0.0072	0.012	ND	U	0.0073	0.013	ND	U	0.0073	0.013	ND	U	0.0072	0.012	ND	U	0.0071	0.012	ND	U	0.0072	0.012
α (cis)-Chlordane	ND	ND	x	x	ND	H	0.00036	0.0013	ND	U	0.00037	0.001	ND	U	0.00036	0.0013	ND	U	0.00037	0.0013	ND	U	0.00037	0.0013	ND	U	0.00036	0.0013	ND	U	0.00035	0.0013	ND	U	0.00036	0.0013
γ (trans)-Chlordane	ND	ND	x	x	ND	H	0.00090	0.0013	ND	U	0.00093	0.001	ND	U	0.00092	0.0013	ND	U	0.00093	0.0013	ND	U	0.00093	0.0013	ND	U	0.00092	0.0013	ND	U	0.00091	0.0013	ND	U	0.00092	0.0013
Oxychlordane	ND	ND	x	x	ND	H	0.00020	0.016	ND	U	0.00021	0.017	ND	U	0.00021	0.017	ND	U	0.00021	0.017	ND	U	0.00021	0.017	ND	U	0.00021	0.017	ND	U	0.00021	0.017	ND	U	0.00021	0.017
cis-Nonachlor	ND	ND	x	x	ND	H	0.00049	0.0013	ND	U	0.0005	0.001	ND	U	0.0005	0.0013	ND	U	0.00051	0.0013	ND	U	0.00051	0.0013	ND	U	0.00050	0.0013	ND	U	0.00050	0.0013	ND	U	0.00050	0.0013
trans-Nonachlor	ND	ND	x	x	ND	H	0.00018	0.0013	ND	U	0.00019	0.001	ND	U	0.00019	0.0013	ND	U	0.00019	0.0013	ND	U	0.00019	0.0013	ND	U	0.000190	0.0013	ND	U	0.00019	0.0013	ND	U	0.00019	0.0013
o,p' (2,4')-DDD	ND	ND	x	x	ND	H	0.00079	0.0013	ND	U	0.00083	0.001	ND	U	0.00082	0.0013	ND	U	0.00083	0.0013	ND	U	0.00083	0.0013	ND	U	0.00082	0.0013	ND	U	0.00081	0.0013	ND	U	0.00082	0.0013
p,p' (4,4')-DDD	0.003	ND	x	x	ND	H	0.00051	0.0013	ND	U	0.00053	0.001	ND	U	0.00052	0.0013	ND	U	0.00053	0.0013	0.0030	--	0.00053	0.0013	ND	U	0.00053	0.0013	ND	U	0.00052	0.0013	ND	U	0.00053	0.0013
o,p' (2,4')-DDE	ND	ND	x	x	ND	H	0.00051	0.0013	ND	U	0.00054	0.001	ND	U	0.00053	0.0013	ND	U	0.00054	0.0013	ND	U	0.00054	0.0013	ND	U	0.00053	0.0013	ND	U	0.00052	0.0013	ND	U	0.00053	0.0013
p,p' (4,4')-DDE	ND	ND	x	x	ND	H	0.00069	0.0013	ND	U	0.00072	0.001	ND	U	0.00071	0.0013	ND	U	0.00072	0.0013	ND	U	0.00072	0.0013	ND	U	0.00071	0.0013	ND	U	0.00070	0.0013	ND	U	0.00071	0.0013
o,p' (2,4')-DDT	ND	ND	x	x	ND	H	0.00052	0.0013	ND	U	0.00054	0.001	ND	U	0.00053	0.0013	ND	U	0.00054	0.0013	ND	U	0.00054	0.0013	ND	U	0.00053	0.0013	ND	U	0.00053	0.0013	ND	U	0.00053	0.0013
p,p' (4,4')-DDT	0.0017	0.00083	0.13	0.13	ND	H	0.00066	0.0013	ND	U	0.00069	0.001	ND	U	0.00068	0.0013	ND	U	0.00068	0.0013	0.0017	--	0.00069	0.0013	0.0009	J	0.00068	0.0013	0.00086	J	0.00068	0.0013	ND	U	0.00068	0.0013
Dieldrin	ND	ND	0.71	0.71	ND	H	0.00026	0.0013	ND	U	0.00027	0.001	ND	U	0.00027	0.0013	ND	U	0.00027	0.0013	ND	U	0.00027	0.0013	ND	U	0.00027	0.0013	ND	U	0.00027	0.0013	ND	U	0.00027	0.0013
Endosulfan I	ND	ND	0.034	0.034	ND	H	0.00086	0.0013	ND	U	0.00089	0.001	ND	U	0.00088	0.0013	ND	U	0.00089	0.0013	ND	U	0.00089	0.0013	ND	U	0.00088	0.0013	ND	U	0.00087	0.0013	ND	U	0.00088	0.0013
Endosulfan II	ND	ND	0.034	0.034	ND	H	0.00090	0.0013	ND	U	0.00094	0.001	ND	U	0.00093	0.0013	ND	U	0.00094	0.0013	ND	U	0.00094	0.0013	ND	U	0.00093	0.0013	ND	U	0.00092	0.0013	ND	U	0.00093	0.0013
Endrin	ND	ND	0.037	0.037	ND	H	0.00022	0.0013	ND	U	0.00023	0.001	ND	U	0.00023	0.0013	ND	U	0.00023	0.0013	ND	U	0.00023	0.0013	ND	U	0.00023	0.0013	ND	U	0.00022	0.0013	ND	U	0.00023	0.0013
Endrin Aldehyde	ND	ND	x	x	ND	H	0.00050	0.0013	ND	U	0.00052	0.001	ND	U	0.00051	0.0013	ND	U	0.00052	0.0013	ND	U	0.00052	0.0013	ND	U	0.00051	0.0013	ND	U	0.00051	0.0013	ND	U	0.00051	0.0013
Endrin Ketone	ND	ND	x	x	ND	H	0.00096	0.0013	ND	U	0.00099	0.001	ND	U	0.00098	0.0013	ND	U	0.00099	0.0013	ND	U	0.00099	0.0013	ND	U	0.00098	0.0013	ND	U	0.00097	0.0013	ND	U	0.00098	0.0013
Heptachlor	ND	ND	0.053	0.053	ND	H	0.00043	0.0013	ND	U	0.00045	0.001	ND	U	0.00045	0.0013	ND	U	0.00045	0.0013	ND	U	0.00045	0.0013	ND	U	0.00045	0.0013	ND	U	0.00044	0.0013	ND	U	0.00045	0.0013
Heptachlor Epoxide	ND	ND	0.053	0.053	ND	H	0.00033	0.0013	ND	U	0.00034	0.001	ND	U	0.00034	0.0013	ND	U	0.00034	0.0013	ND	U	0.00034	0.0013	ND	U	0.00034	0.0013	ND	U	0.00033	0.0013	ND	U	0.00034	0.0013
α-BHC	ND	ND	x	x	ND	H	0.00023	0.0013	ND	U	0.00024	0.001	ND	U	0.00024	0.0013	ND	U	0.00024	0.0013	ND	U	0.00024	0.0013	ND	U	0.00024	0.0013	ND	U	0.00023	0.0013	ND	U	0.00024	0.0013
β-BHC	ND	ND	x	x	ND	H	0.00035	0.0013	ND	U	0.00037	0.001	ND	U	0.00036	0.0013	ND	U	0.00037	0.0013	ND	U	0.00037	0.0013	ND	U	0.00036	0.0013	ND	U	0.00035	0.0013	ND	U	0.00036	0.0013
δ-BHC	ND	ND	x	x	ND	H	0.00063	0.0013	ND	U	0.00064	0.001	ND	U	0.00064	0.0013	ND	U	0.00064	0.0013	ND	U	0.00064	0.0013	ND	U	0.00064	0.0013	ND	U	0.00063	0.0013	ND	U	0.00064	0.0013
γ-BHC (Lindane)	ND	ND	0.16	0.16	ND	H	0.00026	0.0013	ND	U	0.00029	0.001	ND	U	0.00029	0.0013	ND	U	0.00028	0.0013	ND	U	0.00029	0.0013	ND	U	0.00029	0.0013	ND	U	0.00029	0.0013	ND	U	0.00029	0.0013
Methoxychlor	ND	ND	x	x	ND	H	0.00075	0.0013	ND	U	0.00078	0.001	ND	U	0.00077	0.0013	ND	U	0.00078	0.0013	ND	U	0.00078	0.0013	ND	U	0.00077	0.0013	ND	U	0.00076	0.0013	ND	U	0.00077	0.0013
Mirex[1]	ND	ND	x	x	ND	H	0.00045	0.0013	ND	U	0.00047	0.001	ND	U	0.00046	0.0013	ND	U	0.00047	0.0013	ND	U	0.00047	0.0013	ND	U	0.00046	0.0013	ND	U	0.00046	0.0013	ND	U	0.00046	0.0013
Toxaphene	ND	ND	0.21	0.21	ND	H	0.047	0.096	ND	U	0.049	0.10	ND	U	0.049	0.099	ND	U	0.049	0.10	ND	U	0.049	0.10	ND	U	0.049	0.099	ND	U	0.048	0.098	ND	U	0.049	0.099
Pesticides, Total Chlorinated	0.560	0.559	x	x	0.057				0.070				0.070				0.070				0.073				0.075				0.069				0.070			

TABLE 12 (*continued*)
Analytical Results for Pesticides in Site Water and Elutriates Generated from Sediment Samples

Analyte	Bypass Channel: GT25-BP-4 (Total) Result µg/L	Qualifier	MDL	MRL	GT25-BP-4 (Dissolved) Result µg/L	Qualifier	MDL	MRL	Connector Channel: GT25-CC-5 (Total) Result µg/L	Qualifier	MDL	MRL	GT25-CC-5 (Dissolved) Result µg/L	Qualifier	MDL	MRL	Sampit River Channel: GT25-SR-6 (Total) Result µg/L	Qualifier	MDL	MRL	GT25-SR-6 (Dissolved) Result µg/L	Qualifier	MDL	MRL	GT25-SF-7 (Total) Result µg/L	Qualifier	MDL	MRL	GT25-SF-7 (Dissolved) Result µg/L	Qualifier	MDL	MRL
Aldrin	ND	U	0.00036	0.0013	ND	U	0.00036	0.0013	ND	U	0.00071	0.0026	ND	U	0.00036	0.0013	ND	U	0.0074	0.013	ND	U	0.00035	0.0013					ND	U	0.00036	0.0013
Chlordane (technical)	ND	U	0.0073	0.013	ND	U	0.0073	0.013	ND	U	0.016	0.026	ND	U	0.0073	0.013	ND	U	0.0074	0.013	ND	U	0.0072	0.012					ND	U	0.0073	0.013
α (cis)-Chlordane	ND	U	0.00037	0.0013	ND	U	0.00037	0.0013	ND	U	0.00073	0.0026	ND	U	0.00037	0.0013	ND	U	0.00037	0.0013	ND	U	0.00036	0.0013					ND	U	0.00037	0.0013
γ (trans)-Chlordane	ND	U	0.00093	0.0013	ND	U	0.00093	0.0013	ND	U	0.0019	0.0026	ND	U	0.00093	0.0013	ND	U	0.00095	0.0013	ND	U	0.00092	0.0013					ND	U	0.00093	0.0013
Oxychlordane	ND	U	0.00021	0.017	ND	U	0.00021	0.017	ND	U	0.00042	0.034	ND	U	0.00021	0.017	ND	U	0.00021	0.017	ND	U	0.00021	0.017					ND	U	0.00021	0.017
cis-Nonachlor	ND	U	0.00051	0.0013	ND	U	0.00051	0.0013	ND	U	0.0010	0.0026	ND	U	0.00051	0.0013	ND	U	0.00052	0.0013	ND	U	0.00050	0.0013					ND	U	0.00051	0.0013
trans-Nonachlor	ND	U	0.00019	0.0013	ND	U	0.00019	0.0013	ND	U	0.00038	0.0026	ND	U	0.00019	0.0013	ND	U	0.00019	0.0013	ND	U	0.00019	0.0013					ND	U	0.00019	0.0013
o,p' (2,4')-DDD	ND	U	0.00083	0.0013	ND	U	0.00083	0.0013	ND	U	0.0017	0.0026	ND	U	0.00083	0.0013	ND	U	0.00084	0.0013	ND	U	0.00082	0.0013					ND	U	0.00083	0.0013
p,p' (4,4')-DDD	0.00071	J	0.00053	0.0013	ND	U	0.00053	0.0013	ND	U	0.0011	0.0026	ND	U	0.00053	0.0013	ND	U	0.00054	0.0013	ND	U	0.00053	0.0013					ND	U	0.00053	0.0013
o,p' (2,4')-DDE	ND	U	0.00054	0.0013	ND	U	0.00054	0.0013	ND	U	0.0011	0.0026	ND	U	0.00054	0.0013	ND	U	0.00056	0.0013	ND	U	0.00053	0.0013					ND	U	0.00054	0.0013
p,p' (4,4')-DDE	ND	U	0.00072	0.0013	ND	U	0.00072	0.0013	ND	U	0.0014	0.0026	ND	U	0.00072	0.0013	ND	U	0.00073	0.0013	ND	U	0.00071	0.0013					ND	U	0.00072	0.0013
o,p' (2,4')-DDT	ND	U	0.00054	0.0013	ND	U	0.00054	0.0013	ND	U	0.0011	0.0026	ND	U	0.00054	0.0013	ND	U	0.00055	0.0013	ND	U	0.00053	0.0013					ND	U	0.00054	0.0013
p,p' (4,4')-DDT	ND	U	0.00069	0.0013	ND	U	0.00068	0.0013	ND	U	0.0014	0.0026	ND	U	0.00069	0.0013	ND	U	0.00070	0.0013	ND	U	0.00068	0.0013					ND	U	0.00069	0.0013
Dieldrin	ND	U	0.00027	0.0013	ND	U	0.00027	0.0013	ND	U	0.00065	0.0026	ND	U	0.00027	0.0013	ND	U	0.00028	0.0013	ND	U	0.00027	0.0013					ND	U	0.00027	0.0013
Endosulfan I	ND	U	0.00089	0.0013	ND	U	0.00089	0.0013	ND	U	0.0014	0.0026	ND	U	0.00089	0.0013	ND	U	0.00070	0.0013	ND	U	0.00088	0.0013					ND	U	0.00089	0.0013
Endosulfan II	ND	U	0.00094	0.0013	ND	U	0.00094	0.0013	ND	U	0.0019	0.0026	ND	U	0.00094	0.0013	ND	U	0.00096	0.0013	ND	U	0.00093	0.0013					ND	U	0.00094	0.0013
Endrin	ND	U	0.00023	0.0013	ND	U	0.00023	0.0013	ND	U	0.00046	0.0026	ND	U	0.00023	0.0013	ND	U	0.00023	0.0013	ND	U	0.00023	0.0013					ND	U	0.00023	0.0013
Endrin Aldehyde	ND	U	0.00052	0.0013	ND	U	0.00052	0.0013	ND	U	0.0010	0.0026	ND	U	0.00052	0.0013	ND	U	0.00053	0.0013	ND	U	0.00051	0.0013					ND	U	0.00052	0.0013
Endrin Ketone	ND	U	0.00099	0.0013	ND	U	0.00099	0.0013	ND	U	0.0020	0.0026	ND	U	0.00099	0.0013	ND	U	0.0010	0.0013	ND	U	0.00098	0.0013					ND	U	0.00099	0.0013
Heptachlor	ND	U	0.00045	0.0013	ND	U	0.00045	0.0013	ND	U	0.00090	0.0026	ND	U	0.00045	0.0013	ND	U	0.00046	0.0013	ND	U	0.00045	0.0013					ND	U	0.00045	0.0013
Heptachlor Epoxide	ND	U	0.00034	0.0013	ND	U	0.00034	0.0013	ND	U	0.00068	0.0026	ND	U	0.00034	0.0013	ND	U	0.00035	0.0013	ND	U	0.00034	0.0013					ND	U	0.00034	0.0013
α-BHC	ND	U	0.00024	0.0013	ND	U	0.00024	0.0013	ND	U	0.00048	0.0026	ND	U	0.00024	0.0013	ND	U	0.00024	0.0013	ND	U	0.00024	0.0013					ND	U	0.00024	0.0013
β-BHC	ND	U	0.00037	0.0013	ND	U	0.00037	0.0013	ND	U	0.00073	0.0026	ND	U	0.00037	0.0013	ND	U	0.00037	0.0013	ND	U	0.00036	0.0013					ND	U	0.00037	0.0013
δ-BHC	ND	U	0.00064	0.0013	ND	U	0.00064	0.0013	ND	U	0.0013	0.0026	ND	U	0.00064	0.0013	ND	U	0.00066	0.0013	ND	U	0.00064	0.0013					ND	U	0.00064	0.0013
γ-BHC (Lindane)	ND	U	0.00029	0.0013	ND	U	0.00029	0.0013	ND	U	0.00069	0.0026	ND	U	0.00029	0.0013	ND	U	0.00030	0.0013	ND	U	0.00029	0.0013					ND	U	0.00029	0.0013
Methoxychlor	ND	U	0.00078	0.0013	ND	U	0.00078	0.0013	ND	U	0.0016	0.0026	ND	U	0.00078	0.0013	ND	U	0.00079	0.0013	ND	U	0.00077	0.0013					ND	U	0.00078	0.0013
Mirex[1]	ND	U	0.00047	0.0013	ND	U	0.00047	0.0013	ND	U	0.00093	0.0026	ND	U	0.00047	0.0013	ND	U	0.00048	0.0013	ND	U	0.00046	0.0013					ND	U	0.00047	0.0013
Toxaphene	ND	U	0.049	0.10	ND	U	0.049	0.10	ND	U	0.098	0.20	ND	U	0.049	0.10	ND	U	0.050	0.10	ND	U	0.049	0.099					ND	U	0.049	0.10
Pesticides, Total Chlorinated	0.070				0.070				0.140				0.070				0.071				0.070								0.070			

Not-detect (ND) = The analyte was not detected at or above the MDL. Not-detect results use the MDL for calculating total pesticides. (J-qualified results use the value reported by the laboratory for calculating total pesticides.)
Data qualifiers and acronyms are defined at the front of the tables section.

Sources: Results from Eurofins TestAmerica; CMC values from USEPA (2018), SC CMC values from SCDHEC (2014).
Compiled by: ANAMAR Environmental Consulting, Inc.

TABLE 13 (*continued*)
Analytical Results for PCBs in Site Water and Elutriates Generated from Sediment Samples

Analyte	Maximum Conc. ng/L	SC CMC ng/L	CMC ng/L	GT25-SW (Total) Result ng/L	Qualifier	MDL	MRL	GT25-SW (Dissolved) Result ng/L	Qualifier	MDL	MRL	Steel Mill Channel: GT25-SM-1 (Total) Result ng/L	Qualifier	MDL	MRL	Steel Mill Channel: GT25-SM-1 (Dissolved) Result ng/L	Qualifier	MDL	MRL
PCB 8[NOAA]	ND	x	x	ND	J	0.40	1.0	ND	U	0.40	1.0	ND	*1	0.40	1.0	ND	*1	0.40	1.0
PCB 18[NOAA]	ND	x	x	ND	J	0.63	1.0	ND	U	0.63	1.0	ND	U	0.63	1.0	ND	U	0.63	1.0
PCB 28[NOAA]	ND	x	x	ND	J	0.49	1.0	ND	U	0.49	1.0	ND	U	0.49	1.0	ND	U	0.49	1.0
PCB 44[NOAA]	ND	x	x	ND	J	0.72	1.0	ND	U	0.72	1.0	ND	U	0.72	1.0	ND	U	0.72	1.0
PCB 49	ND	x	x	ND	U	0.69	1.0	ND	U	0.69	1.0	ND	U	0.69	1.0	ND	U	0.69	1.0
PCB 52[NOAA]	ND	x	x	ND	J	0.66	1.0	ND	U	0.66	1.0	ND	U	0.66	1.0	ND	U	0.66	1.0
PCB 66[NOAA]	ND	x	x	ND	J	0.60	1.0	ND	U	0.60	1.0	ND	U	0.60	1.0	ND	U	0.60	1.0
PCB 77	ND	x	x	ND	U	0.70	1.0	ND	U	0.70	1.0	ND	U	0.70	1.0	ND	U	0.70	1.0
PCB 87	ND	x	x	ND	U	0.56	1.0	ND	U	0.56	1.0	ND	U	0.56	1.0	ND	U	0.56	1.0
PCB 101[NOAA]	ND	x	x	ND	J	0.59	1.0	ND	U	0.59	1.0	ND	U	0.59	1.0	ND	U	0.59	1.0
PCB 105[NOAA]	ND	x	x	ND	J	0.60	1.0	ND	U	0.60	1.0	ND	U	0.60	1.0	ND	U	0.60	1.0
PCB 118[NOAA]	ND	x	x	ND	J	0.73	1.0	ND	U	0.73	1.0	ND	U	0.73	1.0	ND	U	0.73	1.0
PCB 126	ND	x	x	ND	U	0.72	1.0	ND	U	0.72	1.0	ND	U	0.72	1.0	ND	U	0.72	1.0
PCB 128[NOAA]	ND	x	x	ND	J	0.55	1.0	ND	U	0.55	1.0	ND	U	0.55	1.0	ND	U	0.55	1.0
PCB 138[NOAA]	ND	x	x	ND	J	0.50	1.0	ND	U	0.50	1.0	ND	U	0.50	1.0	ND	U	0.50	1.0
PCB 153[NOAA]	ND	x	x	ND	J	0.53	1.0	ND	U	0.53	1.0	ND	U	0.53	1.0	ND	U	0.53	1.0
PCB 156	ND	x	x	ND	U	0.66	1.0	ND	U	0.66	1.0	ND	U	0.66	1.0	ND	U	0.66	1.0
PCB 169	ND	x	x	ND	U	0.69	1.0	ND	U	0.69	1.0	ND	U	0.69	1.0	ND	U	0.69	1.0
PCB 170[NOAA]	ND	x	x	ND	J	0.34	1.0	ND	U	0.34	1.0	ND	U	0.34	1.0	ND	U	0.34	1.0
PCB 180[NOAA]	ND	x	x	ND	J	0.69	1.0	ND	U	0.69	1.0	ND	U	0.69	1.0	ND	U	0.69	1.0
PCB 183	ND	x	x	ND	U	0.64	1.0	ND	U	0.64	1.0	ND	U	0.64	1.0	ND	U	0.64	1.0
PCB 184	ND	x	x	ND	U	0.63	1.0	ND	U	0.63	1.0	ND	U	0.63	1.0	ND	U	0.63	1.0
PCB 187[NOAA]	ND	x	x	ND	J	0.64	1.0	ND	U	0.64	1.0	ND	U	0.64	1.0	ND	U	0.64	1.0
PCB 195[NOAA]	ND	x	x	ND	J	0.79	1.0	ND	U	0.79	1.0	ND	U	0.79	1.0	ND	U	0.79	1.0
PCB 206[NOAA]	ND	x	x	ND	J	0.88	1.0	ND	U	0.88	1.0	ND	U	0.88	1.0	ND	U	0.88	1.0
PCB 209[NOAA]	ND	x	x	ND	J	0.83	1.0	ND	U	0.83	1.0	ND	U	0.65	1.0	ND	U	0.83	1.0
Total EPA Region 4 PCBs	17	x	x	17				17				17				17			
Total NOAA PCBs	17	x	x	23				23				23				23			
Analyte	**Maximum Conc. ng/L**	**SC CMC µg/L**	**CMC µg/L**	**Result µg/L**	**Qualifier**	**MDL**	**MRL**	**Result µg/L**	**Qualifier**	**MDL**	**MRL**	**Result µg/L**	**Qualifier**	**MDL**	**MRL**	**Result µg/L**	**Qualifier**	**MDL**	**MRL**
PCB-1016	ND	x	x	ND	U	0.0049	0.010	ND	U	0.0048	0.010	ND	U	0.0047	0.0096	ND	U	0.0048	0.010
PCB-1221	ND	x	x	ND	U	0.0057	0.010	ND	U	0.0057	0.010	ND	U	0.0057	0.0096	ND	U	0.0057	0.010
PCB-1232	ND	x	x	ND	U	0.0052	0.010	ND	U	0.0052	0.010	ND	U	0.0052	0.0096	ND	U	0.0052	0.010
PCB-1242	ND	x	x	ND	U	0.0036	0.010	ND	U	0.0036	0.010	ND	U	0.0035	0.0096	ND	U	0.0036	0.010
PCB-1248	0.020	x	x	ND	U	0.0080	0.010	ND	U	0.0080	0.010	ND	U	0.0079	0.0096	ND	U	0.0080	0.010
PCB-1254	ND	x	x	ND	U	0.0046	0.010	ND	U	0.0046	0.010	ND	U	0.0045	0.0096	ND	U	0.0046	0.010
PCB-1260	ND	x	x	ND	U	0.0039	0.010	ND	U	0.0039	0.010	ND	U	0.0038	0.0096	ND	U	0.0039	0.010

Analyte	Steel Mill Channel: GT25-SM-2 (Total) Result ng/L	Qualifier	MDL	MRL	Steel Mill Channel: GT25-SM-2 (Dissolved) Result ng/L	Qualifier	MDL	MRL	Bypass Channel: GT25-BP-3 (Total) Result ng/L	Qualifier	MDL	MRL	Bypass Channel: GT25-BP-3 (Dissolved) Result ng/L	Qualifier	MDL	MRL
PCB 8[NOAA]	ND	*1	0.40	1.0	ND	*1	0.40	1.0	ND	*1	0.40	1.0	ND	*1	0.40	1.0
PCB 18[NOAA]	ND	U	0.63	1.0	ND	U	0.63	1.0	ND	U	0.63	1.0	ND	U	0.63	1.0
PCB 28[NOAA]	ND	U	0.49	1.0	ND	U	0.49	1.0	ND	U	0.49	1.0	ND	U	0.49	1.0
PCB 44[NOAA]	ND	U	0.72	1.0	ND	U	0.72	1.0	ND	U	0.72	1.0	ND	U	0.72	1.0
PCB 49	ND	U	0.69	1.0	ND	U	0.69	1.0	ND	U	0.69	1.0	ND	U	0.69	1.0
PCB 52[NOAA]	ND	U	0.66	1.0	ND	U	0.66	1.0	ND	U	0.66	1.0	ND	U	0.66	1.0
PCB 66[NOAA]	ND	U	0.60	1.0	ND	U	0.60	1.0	ND	U	0.60	1.0	ND	U	0.60	1.0
PCB 77	ND	U	0.70	1.0	ND	U	0.70	1.0	ND	U	0.70	1.0	ND	U	0.70	1.0
PCB 87	ND	U	0.56	1.0	ND	U	0.56	1.0	ND	U	0.56	1.0	ND	U	0.56	1.0
PCB 101[NOAA]	ND	U	0.59	1.0	ND	U	0.59	1.0	ND	U	0.59	1.0	ND	U	0.59	1.0
PCB 105[NOAA]	ND	U	0.60	1.0	ND	U	0.60	1.0	ND	U	0.60	1.0	ND	U	0.60	1.0
PCB 118[NOAA]	ND	U	0.73	1.0	ND	U	0.73	1.0	ND	U	0.73	1.0	ND	U	0.73	1.0
PCB 126	ND	U	0.72	1.0	ND	U	0.72	1.0	ND	U	0.72	1.0	ND	U	0.72	1.0
PCB 128[NOAA]	ND	U	0.55	1.0	ND	U	0.55	1.0	ND	U	0.55	1.0	ND	U	0.55	1.0
PCB 138[NOAA]	ND	U	0.50	1.0	ND	U	0.50	1.0	ND	U	0.50	1.0	ND	U	0.50	1.0
PCB 153[NOAA]	ND	U	0.53	1.0	ND	U	0.53	1.0	ND	U	0.53	1.0	ND	U	0.53	1.0
PCB 156	ND	U	0.66	1.0	ND	U	0.66	1.0	ND	U	0.66	1.0	ND	U	0.66	1.0
PCB 169	ND	U	0.69	1.0	ND	U	0.69	1.0	ND	U	0.69	1.0	ND	U	0.69	1.0
PCB 170[NOAA]	ND	U	0.34	1.0	ND	U	0.34	1.0	ND	U	0.34	1.0	ND	U	0.34	1.0
PCB 180[NOAA]	ND	U	0.69	1.0	ND	U	0.69	1.0	ND	U	0.69	1.0	ND	U	0.69	1.0
PCB 183	ND	U	0.64	1.0	ND	U	0.64	1.0	ND	U	0.64	1.0	ND	U	0.64	1.0
PCB 184	ND	U	0.63	1.0	ND	U	0.63	1.0	ND	U	0.63	1.0	ND	U	0.63	1.0
PCB 187[NOAA]	ND	U	0.64	1.0	ND	U	0.64	1.0	ND	U	0.64	1.0	ND	U	0.64	1.0
PCB 195[NOAA]	ND	U	0.79	1.0	ND	U	0.79	1.0	ND	U	0.79	1.0	ND	U	0.79	1.0
PCB 206[NOAA]	ND	U	0.88	1.0	ND	U	0.88	1.0	ND	U	0.88	1.0	ND	U	0.88	1.0
PCB 209[NOAA]	ND	U	0.83	1.0	ND	U	0.65	1.0	ND	U	0.83	1.0	ND	U	0.83	1.0
Total EPA Region 4 PCBs	17				17				17				17			
Total NOAA PCBs	23				23				23				23			
Analyte	**Result µg/L**	**Qualifier**	**MDL**	**MRL**	**Result µg/L**	**Qualifier**	**MDL**	**MRL**	**Result µg/L**	**Qualifier**	**MDL**	**MRL**	**Result µg/L**	**Qualifier**	**MDL**	**MRL**
PCB-1016	ND	U	0.0048	0.010	ND	U	0.0047	0.0099	ND	U	0.0047	0.0098	ND	U	0.0047	0.0099
PCB-1221	ND	U	0.0057	0.010	ND	U	0.0057	0.0099	ND	U	0.0056	0.0098	ND	U	0.0057	0.0099
PCB-1232	ND	U	0.0052	0.010	ND	U	0.0052	0.0099	ND	U	0.0051	0.0098	ND	U	0.0052	0.0099
PCB-1242	ND	U	0.0036	0.010	ND	U	0.0035	0.0099	ND	U	0.0035	0.0098	ND	J	0.0035	0.0099
PCB-1248	ND	U	0.0080	0.010	ND	U	0.0079	0.0099	ND	U	0.0078	0.0098	ND	U	0.0079	0.0099
PCB-1254	ND	U	0.0046	0.010	ND	U	0.0046	0.0099	ND	U	0.0045	0.0098	ND	U	0.0046	0.0099
PCB-1260	ND	U	0.0039	0.010	ND	U	0.0039	0.0099	ND	U	0.0039	0.0098	ND	U	0.0039	0.0099

TABLE 13 (*continued*)
Analytical Results for PCBs in Site Water and Elutriates Generated from Sediment Samples

Analyte	Bypass Channel: GT25-BP-4 (Total) Result ng/L	Qualifier	MDL	MRL	Bypass Channel: GT25-BP-4 (Dissolved) Result ng/L	Qualifier	MDL	MRL	Connector Channel: GT25-CC-6 (Total) Result ng/L	Qualifier	MDL	MRL	Connector Channel: GT25-CC-6 (Dissolved) Result ng/L	Qualifier	MDL	MRL
PCB 8[NOAA]	ND	*1	0.40	1.0	ND	*1	0.40	1.0	ND	*1	0.40	1.0	ND	*1	0.40	1.0
PCB 18[NOAA]	ND	U	0.63	1.0	ND	J	0.63	1.0	ND	U	0.63	1.0	ND	U	0.63	1.0
PCB 28[NOAA]	ND	U	0.49	1.0	ND	J	0.49	1.0	ND	U	0.49	1.0	ND	U	0.49	1.0
PCB 44[NOAA]	ND	U	0.72	1.0	ND	J	0.72	1.0	ND	U	0.72	1.0	ND	U	0.72	1.0
PCB 49	ND	U	0.69	1.0	ND	J	0.69	1.0	ND	U	0.69	1.0	ND	U	0.69	1.0
PCB 52[NOAA]	ND	U	0.66	1.0	ND	J	0.66	1.0	ND	U	0.66	1.0	ND	U	0.66	1.0
PCB 66[NOAA]	ND	U	0.60	1.0	ND	J	0.60	1.0	ND	U	0.60	1.0	ND	U	0.60	1.0
PCB 77	ND	U	0.70	1.0	ND	J	0.70	1.0	ND	U	0.70	1.0	ND	U	0.70	1.0
PCB 87	ND	U	0.56	1.0	ND	J	0.56	1.0	ND	U	0.56	1.0	ND	U	0.56	1.0
PCB 101[NOAA]	ND	U	0.59	1.0	ND	J	0.59	1.0	ND	U	0.59	1.0	ND	U	0.59	1.0
PCB 105[NOAA]	ND	U	0.60	1.0	ND	J	0.60	1.0	ND	U	0.60	1.0	ND	U	0.60	1.0
PCB 118[NOAA]	ND	U	0.73	1.0	ND	J	0.73	1.0	ND	U	0.73	1.0	ND	U	0.73	1.0
PCB 126	ND	U	0.72	1.0	ND	J	0.72	1.0	ND	U	0.72	1.0	ND	U	0.72	1.0
PCB 128[NOAA]	ND	U	0.55	1.0	ND	J	0.55	1.0	ND	U	0.55	1.0	ND	U	0.55	1.0
PCB 138[NOAA]	ND	U	0.50	1.0	ND	J	0.50	1.0	ND	U	0.50	1.0	ND	U	0.50	1.0
PCB 153[NOAA]	ND	U	0.53	1.0	ND	J	0.53	1.0	ND	U	0.53	1.0	ND	U	0.53	1.0
PCB 156	ND	U	0.66	1.0	ND	J	0.66	1.0	ND	U	0.66	1.0	ND	U	0.66	1.0
PCB 169	ND	U	0.69	1.0	ND	J	0.69	1.0	ND	U	0.69	1.0	ND	U	0.69	1.0
PCB 170[NOAA]	ND	U	0.34	1.0	ND	J	0.34	1.0	ND	U	0.34	1.0	ND	U	0.34	1.0
PCB 180[NOAA]	ND	U	0.69	1.0	ND	J	0.69	1.0	ND	U	0.69	1.0	ND	U	0.69	1.0
PCB 183	ND	U	0.64	1.0	ND	J	0.64	1.0	ND	U	0.64	1.0	ND	U	0.64	1.0
PCB 184	ND	U	0.63	1.0	ND	J	0.63	1.0	ND	U	0.63	1.0	ND	U	0.63	1.0
PCB 187[NOAA]	ND	U	0.64	1.0	ND	J	0.64	1.0	ND	U	0.64	1.0	ND	U	0.64	1.0
PCB 195[NOAA]	ND	U	0.79	1.0	ND	J	0.79	1.0	ND	U	0.79	1.0	ND	U	0.79	1.0
PCB 206[NOAA]	ND	U	0.88	1.0	ND	J	0.88	1.0	ND	U	0.88	1.0	ND	U	0.88	1.0
PCB 209[NOAA]	ND	U	0.83	1.0	ND	J	0.83	1.0	ND	U	0.65	1.0	ND	U	0.83	1.0
Total EPA Region 4 PCBs	17				17				17				17			
Total NOAA PCBs	23				23				23				23			
Analyte	**Result µg/L**	**Qualifier**	**MDL**	**MRL**	**Result µg/L**	**Qualifier**	**MDL**	**MRL**	**Result µg/L**	**Qualifier**	**MDL**	**MRL**	**Result µg/L**	**Qualifier**	**MDL**	**MRL**
PCB-1016	ND	U	0.0049	0.010	ND	J	0.0049	0.010	ND	U	0.0095	0.020	ND	U	0.0048	0.010
PCB-1221	ND	U	0.0057	0.010	ND	J	0.0057	0.010	ND	U	0.011	0.020	ND	U	0.0057	0.010
PCB-1232	ND	U	0.0052	0.010	ND	J	0.0052	0.010	ND	U	0.010	0.020	ND	U	0.0052	0.010
PCB-1242	ND	U	0.0036	0.010	ND	J	0.0036	0.010	ND	U	0.0071	0.020	ND	U	0.0036	0.010
PCB-1248	ND	U	0.0080	0.010	ND	J	0.0080	0.010	ND	U	0.016	0.020	ND	U	0.0080	0.010
PCB-1254	ND	U	0.0046	0.010	ND	J	0.0046	0.010	ND	U	0.0091	0.020	ND	U	0.0046	0.010
PCB-1260	ND	U	0.0039	0.010	ND	J	0.0039	0.010	ND	U	0.0076	0.020	ND	U	0.0039	0.010

Analyte	Sampit River Channel: GT25-SR-6 (Total) Result ng/L	Qualifier	MDL	MRL	Sampit River Channel: GT25-SR-6 (Dissolved) Result ng/L	Qualifier	MDL	MRL	GT25-BP-4 Field Split: GT25-SF-7 (Total) Result ng/L	Qualifier	MDL	MRL	GT25-BP-4 Field Split: GT25-SF-7 (Dissolved) Result ng/L	Qualifier	MDL	MRL
PCB 8[NOAA]	ND	*1	0.40	1.0	ND	*1	0.40	1.0					ND	*1	0.40	1.0
PCB 18[NOAA]	ND	J	0.63	1.0	ND	U	0.63	1.0					ND	U	0.63	1.0
PCB 28[NOAA]	ND	J	0.49	1.0	ND	U	0.49	1.0					ND	U	0.49	1.0
PCB 44[NOAA]	ND	J	0.72	1.0	ND	U	0.72	1.0					ND	U	0.72	1.0
PCB 49	ND	J	0.69	1.0	ND	U	0.69	1.0					ND	U	0.69	1.0
PCB 52[NOAA]	ND	J	0.66	1.0	ND	U	0.66	1.0					ND	U	0.66	1.0
PCB 66[NOAA]	ND	J	0.60	1.0	ND	U	0.60	1.0					ND	U	0.60	1.0
PCB 77	ND	J	0.70	1.0	ND	U	0.70	1.0					ND	U	0.70	1.0
PCB 87	ND	J	0.56	1.0	ND	U	0.56	1.0					ND	U	0.56	1.0
PCB 101[NOAA]	ND	J	0.59	1.0	ND	U	0.59	1.0					ND	U	0.59	1.0
PCB 105[NOAA]	ND	J	0.60	1.0	ND	U	0.60	1.0					ND	U	0.60	1.0
PCB 118[NOAA]	ND	J	0.73	1.0	ND	U	0.73	1.0					ND	U	0.73	1.0
PCB 126	ND	J	0.72	1.0	ND	U	0.72	1.0					ND	U	0.72	1.0
PCB 128[NOAA]	ND	J	0.55	1.0	ND	U	0.55	1.0					ND	U	0.55	1.0
PCB 138[NOAA]	ND	J	0.50	1.0	ND	U	0.50	1.0					ND	U	0.50	1.0
PCB 153[NOAA]	ND	J	0.53	1.0	ND	U	0.53	1.0					ND	U	0.53	1.0
PCB 156	ND	J	0.66	1.0	ND	U	0.66	1.0					ND	U	0.66	1.0
PCB 169	ND	J	0.69	1.0	ND	U	0.69	1.0					ND	U	0.69	1.0
PCB 170[NOAA]	ND	J	0.34	1.0	ND	U	0.34	1.0					ND	U	0.34	1.0
PCB 180[NOAA]	ND	J	0.69	1.0	ND	U	0.69	1.0					ND	U	0.69	1.0
PCB 183	ND	J	0.64	1.0	ND	U	0.64	1.0					ND	U	0.64	1.0
PCB 184	ND	J	0.63	1.0	ND	U	0.63	1.0					ND	U	0.63	1.0
PCB 187[NOAA]	ND	J	0.64	1.0	ND	U	0.64	1.0					ND	U	0.64	1.0
PCB 195[NOAA]	ND	J	0.79	1.0	ND	U	0.79	1.0					ND	U	0.79	1.0
PCB 206[NOAA]	ND	J	0.88	1.0	ND	U	0.88	1.0					ND	U	0.99	1.0
PCB 209[NOAA]	ND	J	0.83	1.0	ND	U	0.65	1.0					ND	U	0.83	1.0
Total EPA Region 4 PCBs	17				17								17			
Total NOAA PCBs	23				23								23			
Analyte	**Result µg/L**	**Qualifier**	**MDL**	**MRL**	**Result µg/L**	**Qualifier**	**MDL**	**MRL**	**Result µg/L**	**Qualifier**	**MDL**	**MRL**	**Result µg/L**	**Qualifier**	**MDL**	**MRL**
PCB-1016	ND	J	0.0049	0.010	ND	U	0.0047	0.0096					ND	U	0.0049	0.010
PCB-1221	ND	J	0.0058	0.010	ND	U	0.0057	0.0096					ND	U	0.0057	0.010
PCB-1232	ND	J	0.0053	0.010	ND	U	0.0052	0.0096					ND	U	0.0052	0.010
PCB-1242	ND	J	0.0038	0.010	ND	U	0.0035	0.0096					ND	U	0.0036	0.010
PCB-1248	ND	J	0.0082	0.010	0.020	–	0.0079	0.0096					ND	U	0.0080	0.010
PCB-1254	ND	J	0.0047	0.010	ND	U	0.0046	0.0096					ND	U	0.0046	0.010
PCB-1260	ND	J	0.004	0.010	ND	U	0.0039	0.0096					ND	U	0.0039	0.010

Non-detect (ND) results use the MDL for calculating total EPA Region 4 and total NOAA PCBs.
NOAA National Oceanic and Atmospheric Administration PCB congeners (see SERIM Table 5-9 for list).
Data qualifiers and acronyms are defined at the front of the tables section.
Sources: Results from Eurofins TestAmerica. There are no applicable CMC values in USEPA (2016). Compiled by: ANAMAR Environmental Consulting, Inc.

TABLE 14 *(continued)*
Analytical Results for Dioxins and Furans in Site Water and Elutriates Generated from Sediment Samples

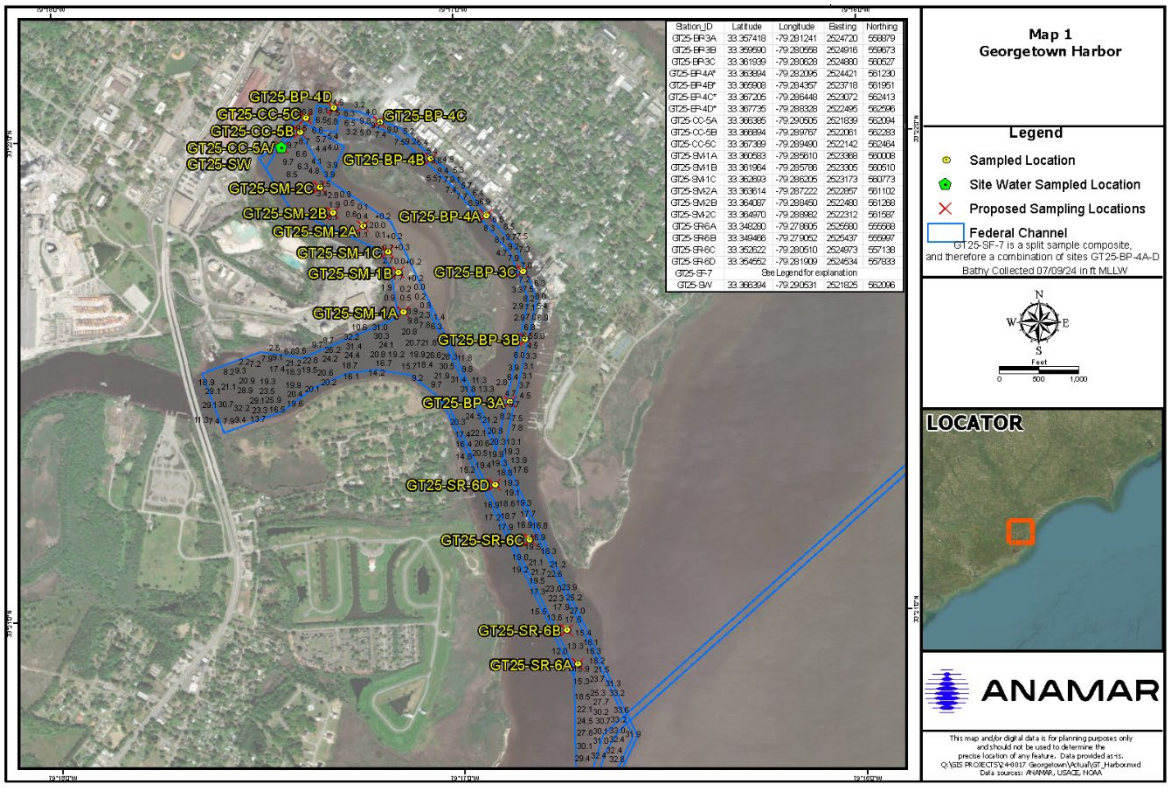
						Steel Mill Channel																Bypass Channel					
Sample ID:						GT25-SW (Total)					GT25-SW (Dissolved)					GT25-SM-1 (Total)					GT25-SM-1 (Dissolved)					GT25-SM-2 (Total)					GT25-SM-2 (Dissolved)					GT25-BP-3 (Total)					GT25-BP-3 (Dissolved)				
Analyte	Maximum Conc. pg/L (Total)	Maximum Conc. pg/L (Dissolved)	SC CMC pg/L	CMC pg/L	TEF	Result pg/L	Qualifier	EDL	MRL	TEQ	Result pg/L	Qualifier	EDL	MRL	TEQ	Result pg/L	Qualifier	EDL	MRL	TEQ	Result pg/L	Qualifier	EDL	MRL	TEQ	Result pg/L	Qualifier	EDL	MRL	TEQ	Result pg/L	Qualifier	EDL	MRL	TEQ	Result pg/L	Qualifier	EDL	MRL	TEQ	Result pg/L	Qualifier	EDL	MRL	TEQ
2,3,7,8-TCDD	1.5		x	x	1	ND	U	0.047	4.8	0.047	ND	U	0.077	4.7	0.077	1.6	J	0.78	5C	1.6	ND	U	0.044	5.0	0.044	ND	U	0.33	5.0	0.33	ND	U	0.030	5.1	0.030	ND	U	0.40	5.0	0.4	ND	U	0.068	5.0	0.068
1,2,3,7,8-PeCDD	4		0.48	x	x	1	ND	U	0.083	24	0.1	0.33	J	0.048	24	0.048	4.0	J	0.59	25C	4	0.48	J	0.030	25	0.483	ND	U	0.79	25C	0.79	ND	U	0.052	25	0.052	ND	U	0.87	25C	0.87	ND	U	0.045	25	0.045
1,2,3,4,7,8-HxCDD	5.6		1.40	x	x	0.1	ND	U	0.053	24	0.0053	ND	U	0.053	24	0.0053	4.8	J	0.81	25C	0.481	1.6	J	0.035	25	0.163	0.61	J	0.65	25C	0.61	0.53	J	0.057	25	0.057	4.3	J	0.83	25C	0.43	0.45	J	0.057	25	0.048
1,2,3,6,7,8-HxCDD	14		3.40	x	x	0.1	0.30	J	0.057	24	0.003	0.33	J	0.052	24	0.0052	14	J	1.6	25C	1.4	2.8	J	0.14	25	0.286	16	J	3.65	25C	1	1.2	J	0.060	25	0.12	7.0	J	1.9	25C	0.7	1.2	J	0.067	25	0.12
1,2,3,7,8,9-HxCDD	25		3.40	x	x	0.1	0.48	J	0.055	24	0.048	0.46	J	0.048	24	0.0013	20	J	1.1	25C	2	3.8	J	0.18	25	0.386	14	J	3.65	25C	1.4	2.4	J	0.055	25	0.24	6.8	J	3.70	25C	0.68	1.3	J	0.070	25	0.13
1,2,3,4,6,7,8-HpCDD	450		1.80	x	x	0.01	5.0	J	0.13	24	0.050	1.6	J	0.077	24	0.016	450	B	1.5	25C	8	1.6	B	0.65	25	1.603	4.0	B	1.3	25C	4.1	7.6	B	0.85	25	0.79	370	B	1.8	25C	3.7	3.5	B	0.12	25	0.16
OCDD	5000	4700	x	x	0.0003	85	J	0.13	110	0.0255	14	J	0.34	100	0.0042	5000	B	7.5	100	5.4	4700	B	3.45	3C	1.410	11000	B	7.1	1.0C	3.3	2000	B	3.30	10	0.60	6300	B	1.8	1100	0.67	610	B	0.75	10	0.273
2,3,7,8-TCDF	1.3		0.27	x	x	0.1	ND	U	0.055	4.8	0.0055	0.27	J	0.038	4.7	0.027	1.4	J	0.41	5C	0.14	ND	U	0.051	5.0	0.005	1.3	J	0.42	5.0	0.13	ND	U	0.029	5.1	0.0029	ND	U	0.035	5.0	0.0035	ND	U	0.005	5.0	0.0005
1,2,3,7,8-PeCDF	3.47		0.46	x	x	0.03	0.24	J	0.064	24	0.0072	ND	U	0.053	24	0.00265	3.47	J	0.59	25C	0.104	0.54	J	0.030	25	0.0054	ND	U	0.18	25C	0.0054	0.58	J	0.044	25	0.0087	ND	U	0.05	25C	0.0025	0.16	J	0.007	25	0.0048
2,3,4,7,8-PeCDF	3.2		0.45	x	x	0.3	0.37	J	0.052	24	0.111	0.31	J	0.048	24	0.093	5.7	J	0.19	25C	1.71	ND	U	0.047	25	0.014	0.3	J	0.14	25C	0.09	0.42	J	0.032	25	0.126	0.9	J	0.05	25C	0.03	0.09	J	0.040	25	0.012
1,2,3,4,7,8-HxCDF	3.4		0.78	x	x	0.1	ND	U	0.052	24	0.0052	ND	U	0.096	24	0.0096	10	J	0.68	25C	1.0	0.65	J	0.053	25	0.065	2.6	J	0.33	25C	0.26	1.0	J	0.052	25	0.104	2.8	J	0.47	25C	0.28	0.23	J	0.10	25	0.023
1,2,3,6,7,8-HxCDF	1.5		0.62	x	x	0.1	0.75	J	0.045	24	0.075	0.76	J	0.095	24	0.076	ND	U	0.095	25C	0.095	0.63	J	0.049	25	0.063	1.0	J	0.31	25C	0.3	0.41	J	0.034	25	0.041	ND	U	0.47	25C	0.047	ND	U	0.10	25	0.010
1,2,3,7,8,9-HxCDF	1		0.16	x	x	0.1	ND	U	0.057	24	0.0057	0.10	J	0.19	24	0.019	ND	U	0.11	25C	0.011	ND	U	0.035	25	0.007	ND	U	0.35	25C	0.035	ND	U	0.041	25	0.0041	ND	U	0.83	25C	0.083	ND	U	0.10	25	0.010
2,3,4,6,7,8-HxCDF	5		0.54	x	x	0.1	ND	U	0.047	24	0.0047	0.31	J	0.067	24	0.031	5.3	J	0.53	25C	0.5	ND	U	0.047	25	0.005	ND	U	0.35	25C	0.035	0.54	J	0.031	25	0.054	ND	U	0.44	25C	0.044	ND	U	0.10	25	0.010
1,2,3,4,6,7,8-HpCDF	28		7.40	x	x	0.01	0.75	J	0.065	24	0.0075	0.48	J	0.027	24	0.0048	28	J	0.54	25C	0.28	7.4	J	0.075	25	0.074	2.2	J	0.33	25C	0.022	4.6	J	0.035	25	0.046	20	J	0.95	25C	0.2	0.3	J	0.002	25	0.003
1,2,3,4,7,8,9-HpCDF	3.4		0.74	x	x	0.01	ND	U	0.083	24	0.0035	0.25	J	0.038	24	0.0025	3.4	J	0.47	25C	0.034	0.64	J	0.11	25	0.006	0.3	J	0.33	25C	0.023	0.38	J	0.035	25	0.0038	2.0	J	0.77	25C	0.020	ND	U	0.072	25	0.00072
OCDF	62		17	x	x	0.0003	1.6	J	0.023	48	0.0005	1.2	J	0.22	47	0.0004	62	J	0.65	50C	0.0186	17	J	0.027	50	0.0051	4.0	J	0.23	50C	0.0012	3	J	0.035	51	0.0027	54	J	0.35	50C	0.02	0.3	J	0.005	50	0.0027
Total TEQs (ND=0.5 X EDL)	75	8	x	x	--					3.18					0.63					27.1					4.6					15.7					5.3					0.7					1.6
Total TEQs (ND=0)	75	4.5	x	x	--					0.81					0.54					27.1					4.5					15.1					5.2					0.3					0.06
TCDD, Total	13	1.80	x	x	--	ND	U	0.53	4.8		ND	U	0.077	4.7		1.6	J	0.78	5C		ND	U	0.30	5.0		ND	U	11	5.0		1.8	J	0.85	5.1		2.7	J	0.40	5.0		ND	U	1.5	5.0	
PeCDD, Total	28	4.40	x	x	--	ND	U	0.34	24		0.33	J	0.048	24		28	J	0.59	25C		4.8	J	0.030	25		ND	U	5.3	25C		0.54	J	0.044	25		ND	U	0.4	25C		0.54	J	0.045	25	
HxCDD, Total	470	7.40	x	x	--	3	J	0.053	24		0.48	J	0.048	24		400	B	1.5	25C		100	B	0.035	25		360	B	3.65	25C		68	B	0.035	25		170	J	0.83	25C		25	B	0.057	25	
HpCDD, Total	600	1.80	x	x	--	12	J	0.13	24		1.6	J	0.077	24		600	B	3.2	25C		150	B	0.065	25		410	B	2.9	25C		75	B	0.35	25		270	B	2.6	25C		35	B	0.37	25	
TCDF, Total	4.4	0.27	x	x	--	ND	U	0.13	4.8		0.27	J	0.038	4.7		1.4	J	0.41	5C		ND	U	0.30	5.0		1.3	J	0.42	5.0		0.5	J	0.64	5.1		ND	U	4.8	5C		ND	U	0.12	5.0	
PeCDF, Total	4	1.10	x	x	--	0.40	J	0.055	24		0.71	J	0.076	24		5.1	J	0.53	25C		1.1	J	0.054	25		4.3	J	0.49	25C		1.0	J	0.035	25		3.5	J	0.78	25C		0.14	J	0.046	25	
HxCDF, Total	18	3.20	x	x	--	0.70	J	0.055	24		0.92	J	0.096	24		11	J	0.59	25C		0.63	J	0.054	25		6.5	J	0.33	25C		1.7	J	0.035	25		1.7	J	0.83	25C		0.82	J	0.14	25	
HpCDF, Total	65	1.5	x	x	--	0.79	J	0.074	24		0.73	J	0.053	24		62	J	0.41	25C		15	J	0.035	25		9.4	J	0.35	25C		5.8	J	0.075	25		4.0	J	0.85	25C		0.5	J	0.062	25	

TABLE 14 *(continued)*
Analytical Results for Dioxins and Furans in Site Water and Elutriates Generated from Sediment Samples

						Bypass Channel										Connector Channel										Sumpit River Channel										GT25-BP-4 Field Split									
Sample ID:						GT25-BP-4 (Total)					GT25-BP-4 (Dissolved)					GT25-CC-6 (Total)					GT25-CC-6 (Dissolved)					GT25-SR-6 (Total)					GT25-SR-6 (Dissolved)					GT25-SF-7 (Total)					GT25-SF-7 (Dissolved)				
Analyte						Result pg/L	Qualifier	EDL	MRL	TEQ	Result pg/L	Qualifier	EDL	MRL	TEQ	Result pg/L	Qualifier	EDL	MRL	TEQ	Result pg/L	Qualifier	EDL	MRL	TEQ	Result pg/L	Qualifier	EDL	MRL	TEQ	Result pg/L	Qualifier	EDL	MRL	TEQ	Result pg/L	Qualifier	EDL	MRL	TEQ	Result pg/L	Qualifier	EDL	MRL	TEQ
2,3,7,8-TCDD						ND	U	0.13	5.0	0.13	ND	U	0.065	5.1	0.065	ND	U	0.11	5.1	0.11	ND	U	0.054	5.0	0.054	ND	U	0.37	5.0	0.37	ND	U	0.063	5.0	0.063	ND	U	0.30					ND	U	0.075	5.1	0.075
1,2,3,7,8-PeCDD						ND	U	0.13	26	0.13	ND	U	0.063	26	0.063	ND	U	0.063	26	0.063	ND	U	0.055	25	0.055	1.3	J	0.17	26	1.3	ND	U	0.062	26	0.062	ND	U	0.05					ND	U	0.054	25	0.054
1,2,3,4,7,8-HxCDD						1.7	J	0.18	26	0.17	ND	U	0.063	26	0.063	ND	U	0.02	26	0.020	ND	U	0.063	25	0.0063	0.6	J	0.02	26	0.06	0.51	J	0.13	26	0.05	ND	U	0.05					ND	U	0.066	25	0.0066
1,2,3,6,7,8-HxCDD						3.4	J	0.15	26	0.34	0.23	J	0.048	26	0.023	4.0	J	0.18	26	0.400	0.70	J	0.065	25	0.07	0.4	J	0.43	26	0.04	1.5	J	0.16	26	0.15	0.47	J	0.064	25	0.047					0.47	J	0.064	25	0.047
1,2,3,7,8,9-HxCDD						4.5	J	0.17	26	0.45	ND	U	0.067	26	0.067	0.4	J	0.02	26	0.040	0.70	J	0.065	25	0.070	1.7	J	0.0	26	1.7	2.7	J	0.13	26	0.27	0.47	J	0.065	25	0.047					0.47	J	0.065	25	0.047
1,2,3,4,6,7,8-HpCDD						140	B	0.68	26	1.4	8.0	J	0.68	26	0.080	140	B	0.74	26	1.400	32	J	0.53	25	0.32	0.90	B	1.4	26	0.9	100	B	0.48	26	10	11	J	0.16	25	1.1					1.1	J	0.16	25	0.11
OCDD						1300	B	0.40	110	0.13	150	B	0.13	110	0.045	1000	B	0.78	110	0.3000	490	B	0.16	110	0.144	16000	B	1.1	110	4.8	7000	B	0.10	110	0.70	190	B	0.10	10	0.06					190	B	0.10	10	0.06
2,3,7,8-TCDF						1.4	J	0.12	5.0	0.14	0.25	J	0.045	5.1	0.003	ND	U	0.073	5.1	0.0073	ND	U	0.34	5.0	0.0049	ND	U	0.36	5.0	0.0049	3.25	J	0.40	5.0	0.33	ND	U	0.045	5.1	0.0045					ND	U	0.045	5.1	0.0045
1,2,3,7,8-PeCDF						ND	U	0.070	26	0.0035	0.40	J	0.065	26	0.010	ND	U	0.12	26	0.0036	ND	U	0.046	25	0.0014	ND	U	0.08	26	0.0075	ND	U	0.005	26	0.003	ND	U	0.076	25	0.0023					ND	U	0.076	25	0.0023
2,3,4,7,8-PeCDF						0.82	J	0.063	26	0.160	ND	U	0.044	26	0.013	0.54	J	0.10	26	0.0020	0.10	J	0.067	25	0.007	ND	U	0.02	26	0.003	ND	U	0.044	26	0.013	0.24	J	0.063	25	0.072					0.24	J	0.063	25	0.072
1,2,3,4,7,8-HxCDF						ND	U	0.12	26	0.012	ND	U	0.062	26	0.006	1.1	J	0.11	26	0.0110	ND	U	0.062	25	0.0062	1.0	J	0.16	26	0.1	0.25	J	0.060	26	0.03	0.33	J	0.062	25	0.033					0.33	J	0.062	25	0.033
1,2,3,6,7,8-HxCDF						1.4	J	0.11	26	0.14	ND	U	0.064	26	0.006	0.91	J	0.15	26	0.0010	0.47	J	0.064	25	0.005	1.1	J	0.15	26	0.11	ND	U	0.049	26	0.005	0.33	J	0.064	25	0.033					0.33	J	0.064	25	0.033
1,2,3,7,8,9-HxCDF						ND	U	0.13	26	0.013	ND	U	0.064	26	0.006	0.70	J	0.15	26	0.0100	0.35	J	0.066	25	0.009	1.0	J	0.16	26	0.1	ND	U	0.37	26	0.37	0.33	J	0.063	25	0.03					0.33	J	0.063	25	0.03
2,3,4,6,7,8-HxCDF						1.0	J	0.13	26	0.10	0.26	J	0.078	26	0.003	1.7	J	0.20	26	0.0100	ND	U	0.060	25	0.0030	1.0	J	0.14	26	0.10	ND	U	0.060	26	0.006	ND	U	0.049	25	0.0049					ND	U	0.049	25	0.0049
1,2,3,4,6,7,8-HpCDF						1.8	J	0.15	26	0.18	1.2	J	0.067	26	0.012	1.1	J	0.12	26	0.0110	5.1	J	0.064	25	0.051	3.0	J	0.18	26	3.0	4.2	J	0.340	26	0.64	1.3	J	0.065	25	0.013					1.3	J	0.065	25	0.013
1,2,3,4,7,8,9-HpCDF						1.5	J	0.23	26	0.011	0.22	J	0.078	26	0.002	0.22	J	0.16	26	0.0022	ND	U	0.063	25	0.0003	0.55	J	0.23	26	0.0055	0.70	J	0.24	26	0.007	ND	U	0.063	25	0.0063					ND	U	0.063	25	0.0063
OCDF						18	J	0.30	52	0.0114	2.0	J	0.12	51	0.001	21	J	0.20	51	0.0063	6.7	J	0.340	50	0.0022	46	J	0.16	52	0.0135	8.1	J	0.340	52	0.02									2.3	J	0.330	51	0.0023
Total TEQs (ND=0.5 X EDL)										4.5					0.51					4.1					3.7					1.4					2.4									3.0	
Total TEQs (ND=0)										4.1					0.53					4.0					0.47					1.3					2.3									0.48	
TCDD, Total						6.47	J	0.13	5.0		ND	U	0.51	5.1		ND	U	5.0	5.1		ND	U	0.47	5.0		1.3	B	0.15	5.0		0.85	J	0.063	5.0		ND	U	0.10	5.1						ND	U	0.10	5.1	
PeCDD, Total						6.8	J	0.12	26		0.27	J	0.063	26		0.6	J	0.063	26		ND	U	0.17	25		1.9	J	0.17	26		ND	U	0.8	26		0.65	J	0.064	25						0.65	J	0.064	25	
HxCDD, Total						30	B	0.17	26		0.23	J	0.063	26		20	B	0.20	26		1	J	0.30	25		470	B	0.40	26		78	B	0.1	26		7.8	J	0.065	25						7.8	J	0.065	25	
HpCDD, Total						40	B	0.08	26		8.0	J	0.20	26		40	B	0.74	26		22	J	0.33	25		630	B	1.4	26		100	B	0.48	26		33	B	0.16	25						33	B	0.16	25	
TCDF, Total						4.4	J	0.13	5.0		0.27	J	0.045	5.1		ND	U	7.5	7.6		2.1	J	0.34	5.0		0.33	J	0.34	5.0		0.25	J	0.340	5.0		ND	U	0.37	5.1						ND	U	0.37	5.1	
PeCDF, Total						5.7	J	0.063	26		0.40	J	0.043	26		0.5	J	0.1	26		0.10	J	0.34	25		ND	U	2.0	26		0.91	J	0.340	26		0.24	J	0.065	25						0.24	J	0.065	25	
HxCDF, Total						1.9	J	0.13	26		0.26	J	0.064	26		0.5	J	0.1	26		1.4	J	0.34	25		7.0	J	0.16	26		3.26	J	0.360	26		1.3	J	0.15	25						1.3	J	0.15	25	
HpCDF, Total						3.6	J	0.18	26		1.4	J	0.053	26		2	J	0.15	26		0.8	J	0.36	25		10	B	0.25	26		7.8	J	0.15	26		2.0	J	0.15	25						2.0	J	0.15	25	

Non detect (NJ) results use the LLOQ for calculating total TEQs. Qualifier address the value reported by the laboratory for calculating total TEQs). These values are marked by the "J" qualifier summary.
Data qualifiers and acronyms are defined at the front of the tables section.

Map 1


GT25-BP-4D
GT25-CC-5C
GT25-BP-4C
GT25-CC-5B
GT25-CC-5A
GT25-SW
GT25-BP-4B
GT25-SM-2C
GT25-SM-2B
GT25-BP-4A
GT25-SM-2A
GT25-SM-1C
GT25-SM-1B
GT25-BP-3C
GT25-SM-1A
GT25-BP-3B
GT25-BP-3A
GT25-SR-6D
GT25-SR-6C
GT25-SR-6B
GT25-SR-6A
Station_ID Latitude Longitude Easting Northing
GT25-BP-3A 33.357418 -79.281241 2524720 556879
GT25-BP-3B 33.359560 -79.280568 2524916 559673
GT25-BP-3C 33.361939 -79.280028 2524880 560527
GT25-BP-4A* 33.363894 -79.282095 2524421 561230
GT25-BP-4B* 33.365908 -79.284357 2523718 561951
GT25-BP-4C* 33.367205 -79.286448 2523072 562413
GT25-BP-4D* 33.367735 -79.288328 2522495 562596
GT25-CC-5A 33.366385 -79.290505 2521939 562094
GT25-CC-5B 33.366894 -79.289767 2522061 562283
GT25-CC-5C 33.367389 -79.289490 2522142 562464
GT25-SM1A 33.360563 -79.285610 2523369 560008
GT25-SM1B 33.361964 -79.285786 2523305 560510
GT25-SM1C 33.362693 -79.285205 2523173 560773
GT25-SM2A 33.363614 -79.287222 2522657 561102
GT25-SM2B 33.364087 -79.288450 2522480 561268
GT25-SM2C 33.364870 -79.288982 2522312 561587
GT25-SR6A 33.346200 -79.279605 2525590 555568
GT25-SR6B 33.349486 -79.279062 2525437 556997
GT25-SR6C 33.352622 -79.280510 2524973 557138
GT25-SR6D 33.354552 -79.281909 2524534 557833
GT25-SF-7 See Legend for explanation
GT25-SW 33.366394 -79.290531 2521625 562096
Map 1
Georgetown Harbor
Legend
Sampled Location
Site Water Sampled Location
Proposed Sampling Locations
Federal Channel
GT25-SF-7 is a split sample composite, and therefore a combination of sites GT25-BP-4A-D
Bathy Collected 07/09/24 in ft MLLW
N
W
E
S
Feet
0
500
1,000
LOCATOR
ANAMAR
This map and/or digital data is for planning purposes only and should not be used to determine the precise location of any feature. Data provided at <ls.
Q:\GIS PROJECTS\24-0017 Georgetown\Actual\GT_Harbor.mxd
Data sources: ANAMAR, USACE, NOAA