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LWG
LOWER WILLAMETTE GROUP

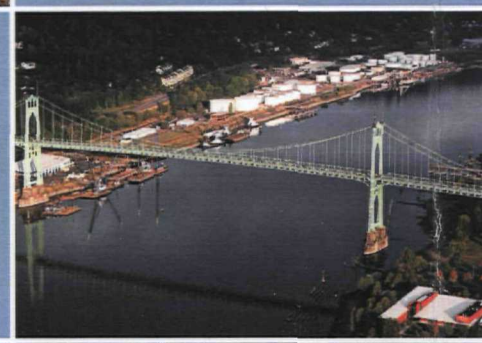
Portland Harbor RI/FS

Draft Remedial Investigation Report

October 27, 2009

VOLUME 4

Section 5 (Tables)



Prepared for

The Lower Willamette Group

Prepared by

Integral Consulting Inc. • Windward Environmental LLC
Kennedy/Jenks Consultants • Anchor QEA, LLC

USEPA SF
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LWG
LOWER WILLAMETTE GROUP

PORTLAND HARBOR RI/FS

REMEDIAL INVESTIGATION REPORT

DRAFT

DO NOT QUOTE OR CITE
This document is currently under review by US EPA and its federal, state, and tribal partners, and is subject to change in whole or in part.

October 27, 2009

Prepared for
The Lower Willamette Group

Prepared by
Integral Consulting Inc.
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IC09-0003

RECOMMENDED FOR INCLUSION IN ADMINISTRATIVE RECORD

Table 5.0-1. Matrix of COIs in All Media.

Analyte	Media																							
	Catch basin solids	In-line solids	Subsurface sediment porewater	Surface sediment porewater	Subsurface sediment	Surface sediment	In-river sediment trap	Stormwater outfall sediment trap	black crappie (fillet)	black crappie (fillet without skin)	black crappie (whole body)	brown bullhead (fillet without skin)	brown bullhead (whole body)	carp (body without fillet)	carp (combined fillet and body w/o fillet fractions)	carp (fillet)	carp (fillet without skin)	carp (whole body)	chinook (fillet)	chinook (fillet without skin)	chinook (stomach contents)	chinook (whole body)	clam (body without shell)	clam (depurated w/o shell)	crayfish (whole body)
Conventionals																									
Acid Volatile Sulfides					X	X																			
Alkalinity																									
Ammonia				X	X	X																			
Bicarbonate																									
Calcium carbonate																									
Carbon dioxide																									
Chloride																									
Conductivity																									
Cyanide	X				X	X																			
Cyanide amenable to chlorination																									
Depth																									
Dissolved organic carbon																									
Dissolved oxygen																									
Ethane																									
Ethylene																									
Flow																									
Free cyanide																									
Hardness as CaCO3																									
Lipids									X		X	X	X	X	X	X		X	X			X	X	X	X
Methane																									
Moisture					X	X																			
Nitrate					X																				
Nitrite																									
Oxidation-Reduction Potential						X																			
Oxygen																									
Perchlorate						X																			
pH					X	X																			
Phosphorus					X	X																			
Silica																									
Specific Gravity			X		X	X	X																		
Sulfate					X																				
Sulfide					X	X	X																		
Temperature																									
Total dissolved solids																									
Total organic carbon	X				X	X	X	X																	
Total solids	X		X		X	X	X	X	X		X	X	X	X	X	X		X				X	X	X	X
Total suspended solids																									
Total suspended solids w/0.45 um filter																									
Total volatile solids					X	X																			
Turbidity																									
Metals																									
Aluminum	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X				X	X	X	X
Antimony	X	X			X	X	X	X						X	X							X	X		X
Arsenic	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X			X	X	X	X
Arsenic pentavalent					X	X																			
Arsenic trivalent					X	X																			
Barium	X			X	X	X																			
Beryllium	X				X	X																			
Boron	X																								
Cadmium	X	X			X	X	X	X	X		X	X	X	X	X	X		X				X	X	X	X
Calcium	X			X	X	X													X			X			
Chromium	X	X		X	X	X	X	X	X			X	X	X	X	X		X	X			X	X	X	X
Chromium hexavalent					X	X	X																		
Cobalt	X			X	X	X													X			X			
Copper	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X			X	X	X	X
Iron	X			X	X	X													X			X			
Lead	X	X		X	X	X	X	X			X		X	X	X	X		X				X	X	X	X
Magnesium	X			X	X	X													X			X			
Manganese	X			X	X	X			X		X	X	X	X	X	X		X	X			X	X	X	X
Mercury	X	X		X	X	X	X	X		X	X	X	X	X	X	X	X	X		X		X	X	X	X
Methylmercury						X																			
Molybdenum	X																								
Nickel	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X				X	X	X	X
Potassium	X			X	X	X													X			X			
Selenium	X				X	X	X	X					X	X	X	X		X	X			X	X	X	X
Silicon																									
Silver	X	X		X	X	X	X	X					X	X	X			X				X	X	X	X
Sodium	X			X	X	X													X			X			
Thallium	X				X	X			X		X	X	X	X	X	X		X				X	X	X	X
Tin	X				X	X																			
Titanium	X				X	X																			
Vanadium	X			X	X	X																			
Zinc	X	X		X	X	X	X	X	X		X	X	X	X	X	X		X	X			X	X	X	X
Butyltins																									
Butyltin ion	X		X	X	X	X	X							X	X	X						X	X	X	X
Dibutyltin dichloride						X																			
Dibutyltin ion	X		X	X	X	X	X							X	X	X							X		X
Monobutyltin trichloride						X																			
Tetrabutyltin			X		X	X																			
Tributyltin					X	X																			
Tributyltin chloride						X																			
Tributyltin ion	X		X	X	X	X	X							X	X	X						X	X		X
PCB Aroclors																									
Aroclor 1016						X																			

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Aroclor 1221	X					X	X																		
Aroclor 1232					X	X																			
Aroclor 1242	X				X	X	X	X																	
Aroclor 1248	X				X	X		X	X		X	X	X			X		X				X	X		
Aroclor 1254	X				X	X	X	X											X			X			
Aroclor 1260	X				X	X	X	X	X		X	X	X			X		X				X	X		X
Aroclor 1262					X																				
Aroclor 1268	X				X	X																			
Aroclors	X				X	X	X	X	X		X	X	X			X		X	X			X	X		X
PCB Congeners																									
PCB001					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB002					X	X	X	X			X			X	X	X		X	X	X	X	X	X	X	X
PCB003					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB004						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB004 & 010					X	X	X	X																	
PCB005						X								X	X	X		X			X	X	X	X	
PCB005 & 008					X	X	X	X																	
PCB006					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB007						X					X			X	X	X		X	X		X	X	X	X	X
PCB007 & 009					X	X	X	X																	
PCB008						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB009						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB010						X					X		X	X	X	X		X			X	X	X	X	X
PCB011					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB012						X																			
PCB012 & 013					X	X	X	X			X			X	X	X		X	X		X	X	X	X	X
PCB013						X																			
PCB014					X	X									X	X						X			
PCB015					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB016						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB016 & 032					X	X	X	X																	
PCB017					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB018					X	X	X	X																	
PCB018 & 030						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB019					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB020						X																			
PCB020 & 021 & 033					X	X	X	X																	
PCB020 & 028						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB021						X																			
PCB021 & 033						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB022					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB023					X	X	X	X						X	X	X		X	X	X		X	X	X	X
PCB024						X					X		X	X	X	X		X	X	X	X	X	X		X
PCB024 & 027					X	X	X	X																	
PCB025					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB026					X	X	X	X																	
PCB026 & 029						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB027						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB028					X	X	X	X																	
PCB029					X	X	X	X																	
PCB030					X	X	X	X																	
PCB031					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB032						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB033						X																			
PCB034					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB035					X	X	X	X			X		X		X	X		X			X	X	X	X	X
PCB036					X	X		X			X		X		X	X			X	X	X	X	X	X	
PCB037					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB038					X	X	X	X			X			X	X	X		X	X			X	X	X	
PCB039					X	X		X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB040					X	X	X	X																	
PCB040 & 041 & 071						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB041						X																			
PCB041 & 064 & 071 & 072					X	X	X	X																	
PCB042						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB042 & 059					X	X	X	X																	
PCB043						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB043 & 049					X	X	X	X																	
PCB044					X	X	X	X																	
PCB044 & 047 & 065						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB045					X	X	X	X																	
PCB045 & 051						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB046					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB047					X	X	X	X																	
PCB048						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB048 & 075					X	X	X	X																	
PCB049						X																			
PCB049 & 069						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB050					X	X	X	X																	
PCB050 & 053						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB051					X	X	X	X																	
PCB052						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB052 & 069					X	X	X	X																	
PCB053					X	X	X	X																	
PCB054					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB055					X	X	X	X						X	X	X			X		X	X	X		

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	Media																							
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PCB056						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB056 & 060					X	X	X	X																	
PCB057					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB058					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X		X
PCB059 & 062 & 075						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB060						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB061						X																			
PCB061 & 070					X	X	X	X																	
PCB061 & 070 & 074 & 076						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB062					X	X		X																	
PCB063					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB064						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB065					X	X		X																	
PCB066						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB066 & 076					X	X	X	X																	
PCB067					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB068					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB069						X																			
PCB070						X																			
PCB071						X																			
PCB072						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB073					X	X	X						X	X	X	X		X	X	X	X	X	X	X	X
PCB074					X	X	X	X																	
PCB076						X																			
PCB077					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB078					X	X	X	X			X		X		X	X						X			
PCB079					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB080					X	X		X											X			X	X		
PCB081					X	X	X	X			X		X		X	X		X	X	X	X	X	X		X
PCB082					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB083					X	X		X																	
PCB083 & 099						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB084						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB084 & 092					X	X	X	X																	
PCB085						X																			
PCB085 & 116					X	X	X	X																	
PCB085 & 116 & 117						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB086					X	X	X	X																	
PCB086 & 087 & 097 & 108 & 119 & 125						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB087						X																			
PCB087 & 117 & 125					X	X	X	X																	
PCB088						X																			
PCB088 & 091					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB089					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB090						X																			
PCB090 & 101					X	X	X	X																	
PCB090 & 101 & 113						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB091						X																			
PCB092						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB093					X	X	X	X																	
PCB093 & 095 & 098 & 100 & 102						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB094					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB095						X																			
PCB095 & 098 & 102					X	X	X	X																	
PCB096					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB097					X	X	X	X																	
PCB098						X																			
PCB099					X	X	X	X																	
PCB100					X	X	X	X																	
PCB101						X																			
PCB102						X																			
PCB103					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB104					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB105					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB106						X									X	X		X					X		
PCB106 & 118					X	X	X	X																	
PCB107						X																			
PCB107 & 109					X	X	X	X																	
PCB107 & 124						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB108 & 112					X	X	X	X																	
PCB109						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB110					X	X	X	X																	
PCB110 & 115						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB111						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB111 & 115					X	X	X	X																	
PCB112						X								X	X	X						X	X		X
PCB113					X	X	X	X																	
PCB114					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB115						X																			
PCB116						X																			
PCB117						X																			
PCB118						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB119					X	X	X	X																	
PCB120					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB121					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB122					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X

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PCB123					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB124					X	X	X	X																	
PCB125						X																			
PCB126					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB127					X	X		X			X		X	X	X	X		X			X	X	X	X	X
PCB128						X																			
PCB128 & 162					X	X	X	X																	
PCB128 & 166						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB129					X	X	X	X																	
PCB129 & 138 & 160 & 163						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB130					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB131					X	X		X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB132						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB132 & 161					X	X	X	X																	
PCB133						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB133 & 142					X	X	X	X																	
PCB134						X																			
PCB134 & 143					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB135					X	X	X	X																	
PCB135 & 151 & 154						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB136					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB137					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB138						X																			
PCB138 & 163 & 164					X	X	X	X																	
PCB139						X																			
PCB139 & 140						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB139 & 149					X	X	X	X																	
PCB140					X	X	X	X																	
PCB141					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB142						X																X	X		
PCB143						X																			
PCB144					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB145					X	X	X	X			X			X	X	X		X	X	X	X	X	X	X	
PCB146						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB146 & 165					X	X	X	X																	
PCB147					X	X	X	X																	
PCB147 & 149						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB148					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB149						X																			
PCB150					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB151					X	X	X	X																	
PCB152					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB153					X	X	X	X																	
PCB153 & 168						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB154					X	X	X	X																	
PCB155					X	X	X				X		X	X	X	X		X	X	X	X	X	X	X	X
PCB156					X	X	X	X			X		X					X	X	X		X			X
PCB156 & 157														X	X	X					X	X	X	X	X
PCB157					X	X	X	X			X		X					X	X	X		X			X
PCB158						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB158 & 160					X	X	X	X																	
PCB159					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB160						X																			
PCB161															X	X									
PCB162						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB163						X																			
PCB164						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB165						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB166					X	X	X	X																	
PCB167					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB168					X	X	X	X																	
PCB169					X	X		X			X		X					X	X	X		X	X		X
PCB170					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB171					X	X	X	X																	
PCB171 & 173						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB172					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB173					X	X	X	X																	
PCB174					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB175					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB176					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB177					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB178					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB179					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB180					X	X	X	X																	
PCB180 & 193						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB181					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB182						X					X		X	X	X	X		X	X	X	X	X	X	X	
PCB182 & 187					X	X	X	X																	
PCB183					X	X	X	X																	
PCB183 & 185						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB184					X	X	X	X					X	X	X	X		X	X	X	X	X	X	X	X
PCB185					X	X	X	X																	
PCB186					X	X		X							X	X		X	X	X		X	X		
PCB187						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB188					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB189					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X

Table 5.0-1. Matrix of COIs in All Media.

	Media																							
Analyte	Catch basin solids	In-line solids	Subsurface sediment porewater	Surface sediment porewater	Subsurface sediment	Surface sediment	In-river sediment trap	Stormwater outfall sediment trap	black crappie (fillet)	black crappie (fillet without skin)	black crappie (whole body)	brown bullhead (fillet without skin)	brown bullhead (whole body)	carp (body without fillet)	carp (combined fillet and body w/o fillet fractions)	carp (fillet)	carp (fillet without skin)	carp (whole body)	chinook (fillet)	chinook (fillet without skin)	chinook (stomach contents)	chinook (whole body)	clam (body without shell)	clam (depurated w/o shell)	crayfish (whole body)
PCB190					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB191					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB192						X	X	X											X	X		X			
PCB193					X	X	X	X																	
PCB194					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB195					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB196						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB196 & 203					X	X	X	X																	
PCB197					X	X	X	X																	
PCB197 & 200						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB198					X	X	X	X																	
PCB198 & 199						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB199					X	X	X	X																	
PCB200					X	X	X	X																	
PCB201					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB202					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB203						X					X		X	X	X	X		X	X	X	X	X	X	X	X
PCB204					X	X	X	X						X	X	X		X	X	X	X	X	X	X	X
PCB205					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB206					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB207					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB208					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB209					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
Total PCB Congeners					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCB Homologs																									
Dichlorobiphenyl homologs					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
Heptachlorobiphenyl homologs					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
Hexachlorobiphenyl homologs					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
Monochlorobiphenyl homologs					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
Nonachlorobiphenyl homologs					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
Octachlorobiphenyl homologs					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
Pentachlorobiphenyl homologs					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
Tetrachlorobiphenyl homologs					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
Trichlorobiphenyl homologs					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCDD/Fs																									
1,2,3,4,6,7,8-Heptachlorodibenzofuran					X	X	X				X		X	X	X	X		X	X			X	X	X	X
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin					X	X	X				X		X	X	X	X		X	X			X	X	X	X
1,2,3,4,7,8,9-Heptachlorodibenzofuran					X	X	X				X		X	X	X	X		X				X	X		X
1,2,3,4,7,8-Hexachlorodibenzofuran					X	X	X				X		X	X	X	X		X				X	X	X	X
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin					X	X	X				X		X	X	X	X		X				X	X	X	X
1,2,3,6,7,8-Hexachlorodibenzofuran					X	X	X				X		X	X	X	X		X				X	X	X	X
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin					X	X	X				X		X	X	X	X		X	X	X		X	X	X	X
1,2,3,7,8,9-Hexachlorodibenzofuran					X	X	X				X		X	X	X	X		X							X
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin					X	X	X				X		X	X	X	X		X		X		X	X	X	X
1,2,3,7,8-Pentachlorodibenzofuran					X	X	X				X		X	X	X	X		X	X	X		X	X	X	X
1,2,3,7,8-Pentachlorodibenzo-p-dioxin					X	X	X				X		X	X	X	X		X	X	X		X	X	X	X
2,3,4,6,7,8-Hexachlorodibenzofuran					X	X	X				X		X	X	X	X		X				X	X		X
2,3,4,7,8-Pentachlorodibenzofuran					X	X	X				X		X	X	X	X		X	X	X		X	X	X	X
2,3,7,8-Tetrachlorodibenzofuran					X	X	X				X		X	X	X	X		X	X	X		X	X	X	X
2,3,7,8-Tetrachlorodibenzo-p-dioxin					X	X	X				X		X	X	X	X		X	X	X		X	X		X
Dioxin/furan TCDD toxicity equivalent (ND = 0)					X	X	X				X		X	X	X	X		X	X	X		X	X	X	X
Total TCDD toxicity equivalent (ND = 0)					X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X
PCDD/F Homologs																									
Heptachlorodibenzofuran homologs					X	X	X				X		X	X	X	X		X	X			X	X	X	X
Heptachlorodibenzo-p-dioxin homologs					X	X	X				X		X	X	X	X		X	X	X		X	X	X	X
Hexachlorodibenzofuran homologs					X	X	X				X		X	X	X	X		X	X			X	X	X	X
Hexachlorodibenzo-p-dioxin homologs					X	X	X				X		X	X	X	X		X	X	X		X	X	X	X
Octachlorodibenzofuran					X	X	X						X	X	X	X		X	X			X	X	X	X
Octachlorodibenzo-p-dioxin					X	X	X				X		X	X	X	X		X	X			X	X	X	X
Pentachlorodibenzofuran homologs					X	X	X				X		X	X	X	X		X	X	X		X	X	X	X
Pentachlorodibenzo-p-dioxin homologs					X	X	X				X		X	X	X	X		X	X	X		X	X	X	X
Tetrachlorodibenzofuran homologs					X	X	X				X		X	X	X	X		X	X	X		X	X	X	X
Tetrachlorodibenzo-p-dioxin homologs					X	X	X				X		X	X	X	X		X	X	X		X	X	X	X
Total PCDD/F					X	X	X				X		X	X	X	X		X	X	X		X	X	X	X
Pesticides																									
2,4'-DDD					X	X	X	X				X	X	X	X	X		X			X	X	X	X	X
2,4'-DDE					X	X	X	X						X	X	X					X		X	X	X
2,4'-DDT					X	X	X	X	X		X	X	X	X	X	X		X			X	X	X	X	X
4,4'-DDD	X	X			X	X	X	X	X		X	X	X	X	X	X		X			X	X	X	X	X
4,4'-DDE	X	X			X	X	X	X	X		X	X	X	X	X	X		X	X		X	X	X	X	X
4,4'-DDT	X	X			X	X	X	X	X		X	X	X	X	X	X		X	X		X	X	X	X	X
Aldrin	X				X	X	X	X						X	X	X					X		X	X	X
alpha-Endosulfan					X	X	X	X						X	X	X		X	X		X	X	X	X	
alpha-Hexachlorocyclohexane	X				X	X		X			X			X	X	X					X		X		X
beta-Endosulfan					X	X	X	X					X	X	X	X					X	X	X	X	X
beta-Hexachlorocyclohexane					X	X	X	X						X	X	X					X		X		
Chlordane (cis & trans)						X																			
cis-Chlordane					X	X	X	X			X		X	X	X	X		X			X	X	X	X	X
cis-Nonachlor					X	X	X	X						X	X	X					X		X	X	X
delta-Hexachlorocyclohexane					X	X	X	X			X			X	X						X	X	X		
Dieldrin	X				X	X	X	X			X	X	X	X	X	X			X		X	X	X	X	X
Endosulfan sulfate					X	X	X	X			X			X	X	X					X	X	X	X	X
Endrin	X				X	X	X	X						X	X	X					X	X	X		X
Endrin aldehyde	X				X	X	X	X					X		X	X						X	X		

Table 5.0-1. Matrix of COIs in All Media

	Media																							
Analyte	Catch basin solids	In-line solids	Subsurface sediment porewater	Surface sediment porewater	Subsurface sediment	Surface sediment	In-river sediment trap	Stormwater outfall sediment trap	black crappie (fillet)	black crappie (fillet without skin)	black crappie (whole body)	brown bullhead (fillet without skin)	brown bullhead (whole body)	carp (body without fillet)	carp (combined fillet and body w/o fillet fractions)	carp (fillet)	carp (fillet without skin)	carp (whole body)	chinook (fillet)	chinook (fillet without skin)	chinook (stomach contents)	chinook (whole body)	clam (body without shell)	clam (depurated w/o shell)	crayfish (whole body)
Endrin ketone	X				X	X		X						X	X	X					X		X		
gamma-Hexachlorocyclohexane					X	X	X	X					X	X	X	X					X		X	X	
Heptachlor					X	X	X	X			X			X	X							X	X		
Heptachlor epoxide					X	X	X	X						X	X	X					X	X	X	X	X
Methoxychlor					X	X	X	X					X		X	X		X				X	X		
Mirex					X	X	X	X																	
Oxychlordane					X	X	X	X			X			X	X	X		X			X		X	X	X
Total Chlordanes	X				X	X	X	X	X		X	X	X	X	X	X		X			X	X	X	X	X
Total Endosulfan					X	X	X	X			X		X	X	X	X		X	X		X	X	X	X	X
Total of 2,4' and 4,4'-DDD	X	X			X	X	X	X	X		X	X	X	X	X	X		X			X	X	X	X	X
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	X	X			X	X	X	X	X		X	X	X	X	X	X		X	X		X	X	X	X	X
Total of 2,4' and 4,4'-DDE	X	X			X	X	X	X	X		X	X	X	X	X	X		X	X		X	X	X	X	X
Total of 2,4' and 4,4'-DDT	X	X			X	X	X	X	X		X	X	X	X	X	X		X	X		X	X	X	X	X
Total of 4,4'-DDD, -DDE, -DDT					X	X		X	X		X	X	X			X		X	X		X	X	X		X
Toxaphene	X				X	X																			
trans-Chlordane	X				X	X	X	X			X		X	X	X	X					X	X	X	X	X
trans-Nonachlor					X	X	X	X	X		X	X	X	X	X	X		X			X	X	X	X	X
Herbicides																									
2,4,5-T						X																			
2,4-D					X	X	X																		
2,4-DB					X	X	X																		
Dalapon					X	X																			
Dicamba					X																				
Dichloroprop						X																			
MCPA					X	X																			
MCPP					X	X		X																	
Silvex					X	X	X																		
PAHs																									
1,6,7-Trimethylnaphthalene					X	X		X																	
1-Methylnaphthalene	X		X		X	X		X						X	X	X						X	X	X	
1-Methylphenanthrene					X	X		X																	
2,6-Dimethylnaphthalene					X	X		X																	
2-Methylnaphthalene	X	X	X		X	X	X	X						X	X	X		X	X		X	X	X	X	X
Acenaphthene	X		X		X	X	X	X						X	X	X		X			X	X	X	X	X
Acenaphthylene	X	X	X		X	X	X	X						X	X	X					X	X	X	X	X
Anthracene	X	X	X		X	X	X	X						X	X	X					X	X	X	X	X
Benzo(a)anthracene	X	X	X		X	X	X	X							X	X					X	X	X	X	X
Benzo(a)pyrene	X	X	X		X	X	X	X						X	X						X		X	X	X
Benzo(b)fluoranthene	X	X	X		X	X	X	X						X	X	X					X	X	X	X	X
Benzo(b+k)fluoranthene					X	X		X																	
Benzo(e)pyrene					X	X		X															X	X	
Benzo(g,h,i)perylene	X	X	X		X	X	X	X						X	X	X					X		X	X	X
Benzo(j+k)fluoranthene						X															X				
Benzo(k)fluoranthene	X	X	X		X	X	X	X						X	X	X						X	X		X
Benzofluoranthenes	X					X																			
C1-Chrysene					X	X																	X	X	
C1-Dibenzothiophene					X	X																	X	X	
C1-Fluoranthene/pyrene					X	X																	X	X	
C1-Fluorene					X	X																	X	X	
C1-Naphthalene					X	X																			
C1-Phenanthrene/anthracene					X	X																	X	X	
C2-Chrysene					X	X																	X	X	
C2-Dibenzothiophene					X	X																			
C2-Fluoranthene/pyrene					X	X																	X	X	
C2-Fluorene					X	X																	X	X	
C2-Naphthalene					X	X																	X	X	
C2-Phenanthrene/anthracene					X	X																	X	X	
C3-Chrysene					X	X																			
C3-Dibenzothiophene					X	X																	X		
C3-Fluoranthene/pyrene					X	X																			
C3-Fluorene					X	X																	X	X	
C3-Naphthalene					X	X																	X	X	
C3-Phenanthrene/anthracene					X	X																	X	X	
C4-Chrysene					X	X																			
C4-Dibenzothiophene						X																			
C4-Naphthalene					X	X																	X	X	
C4-Phenanthrene/anthracene					X	X																	X	X	
Chrysene	X	X	X		X	X	X	X													X	X	X	X	X
Dibenzo(a,h)anthracene	X	X	X		X	X	X	X						X	X	X					X	X	X		X
Dibenzothiophene					X	X								X	X	X							X	X	
Fluoranthene	X	X	X		X	X	X	X				X	X	X	X	X					X	X	X	X	X
Fluorene	X	X	X		X	X	X	X						X	X	X		X	X		X	X	X	X	X
High Molecular Weight PAH	X	X	X		X	X	X	X				X	X	X	X	X					X	X	X	X	X
Indeno(1,2,3-cd)pyrene	X	X	X		X	X	X	X						X	X	X					X		X	X	X
Low Molecular Weight PAH	X	X	X		X	X	X	X				X	X	X	X	X		X	X		X	X	X	X	X
Naphthalene	X	X	X		X	X	X	X						X	X	X		X				X	X		X
Perylene					X	X		X															X	X	
Phenanthrene	X	X	X		X	X	X	X				X	X		X	X					X	X	X	X	X
Pyrene	X	X	X		X	X	X	X							X	X					X	X	X	X	X
Total cPAHs	X	X	X		X	X	X	X						X	X	X					X	X	X	X	X
Total PAHs	X	X	X		X	X	X	X				X	X	X	X	X		X	X		X	X	X	X	X
Phthalates																									
Bis(2-ethylhexyl) phthalate	X				X	X	X	X				X	X									X	X	X	
Butylbenzyl phthalate	X				X	X	X	X														X			X
Dibutyl phthalate	X				X	X	X	X														X	X		

Table 5.0-1. Matrix of COIs in All Media.

	Media																							
Analyte	Catch basin solids	In-line solids	Subsurface sediment porewater	Surface sediment porewater	Subsurface sediment	Surface sediment	In-river sediment trap	Stormwater outfall sediment trap	black crappie (fillet)	black crappie (fillet without skin)	black crappie (whole body)	brown bullhead (fillet without skin)	brown bullhead (whole body)	carp (body without fillet)	carp (combined fillet and body w/o fillet fractions)	carp (fillet)	carp (fillet without skin)	carp (whole body)	chinook (fillet)	chinook (fillet without skin)	chinook (stomach contents)	chinook (whole body)	clam (body without shell)	clam (depurated w/o shell)	crayfish (whole body)
Diethyl phthalate	X				X	X	X	X																	
Dimethyl phthalate	X				X	X	X	X																	
Di-n-octyl phthalate	X				X	X		X																	
SVOCs																									
1,2,4-Trichlorobenzene					X	X	X																		
1,2-Dichlorobenzene					X	X																			
1,2-Diphenylhydrazine						X																			
1,3-Dichlorobenzene					X	X																			
1,4-Dichlorobenzene	X				X	X	X																		
2,4-Dinitrotoluene	X				X	X																			
2,6-Dinitrotoluene						X																			
2-Chloronaphthalene					X	X																			
2-Nitroaniline						X																			
3,3'-Dichlorobenzidine	X				X	X																			
3-Nitroaniline						X																			
4-Bromophenyl phenyl ether						X																			
4-Chloroaniline					X	X																			
4-Chlorophenyl phenyl ether						X																			
4-Nitroaniline					X	X																			
Aniline					X	X	X																X		
Azobenzene					X	X																			
Benzoic acid					X	X	X							X	X								X	X	
Benzyl alcohol	X				X	X	X								X	X						X	X	X	X
Bis(2-chloro-1-methylethyl) ether						X																			
Bis(2-chloroethoxy) methane						X								X	X								X		
Bis(2-chloroethyl) ether						X																			
Bis(2-chloroisopropyl) ether					X	X																			
Carbazole	X				X	X	X																		
Dibenzofuran	X		X		X	X	X	X						X	X	X						X	X	X	X
Diphenyl					X	X		X																	
Hexachlorobenzene					X	X	X	X			X			X	X	X					X	X	X	X	X
Hexachlorobutadiene	X				X	X	X	X			X			X	X	X					X		X	X	X
Hexachlorocyclopentadiene						X																			
Hexachloroethane					X	X	X	X																	
Isophorone	X				X	X	X								X	X									
Nitrobenzene						X																	X	X	
N-Nitrosodimethylamine						X																			
N-Nitrosodiphenylamine	X				X	X																			
N-Nitrosodipropylamine						X																			
Retene			X		X																				
Phenols																									
2,3,4,5-Tetrachlorophenol					X	X	X																		
2,3,4,6;2,3,5,6-Tetrachlorophenol coelution					X	X																			
2,3,4,6-Tetrachlorophenol						X																			
2,3,5,6-Tetrachlorophenol					X	X	X																		
2,4,5-Trichlorophenol	X				X	X																			
2,4,6-Trichlorophenol	X				X	X																			
2,4-Dichlorophenol					X	X																			
2,4-Dimethylphenol					X	X																			
2,4-Dinitrophenol					X	X																			
2-Chlorophenol					X	X																			
2-Methylphenol					X	X	X																	X	
2-Nitrophenol						X																			
3- and 4-Methylphenol Coelution	X				X	X																			
4,6-Dinitro-2-methylphenol	X					X																			
4-Chloro-3-methylphenol					X	X																			
4-Methylphenol					X	X	X																		X
4-Nitrophenol					X	X									X	X							X	X	
Pentachlorophenol			X		X	X	X															X	X		X
Phenol	X				X	X	X							X	X							X	X		X
VOCs																									
1,1,1,2-Tetrachloroethane						X																			
1,1,1-Trichloroethane																									
1,1,2,2-Tetrachloroethane					X	X																			
1,1,2-Trichloroethane																									
1,1-Dichloroethane					X	X																			
1,1-Dichloroethene																									
1,2,3-Trichloropropane					X	X																			
1,2,4-Trimethylbenzene	X				X	X																			
1,2-Dichloroethane					X	X																			
1,2-Dichloropropane																									
1,3,5-Trimethylbenzene	X				X																				
1-Methyl-4-isopropylbenzene																									
Acetone	X				X	X	X																		
Acrolein					X																				
Acrylonitrile																									
Benzene	X				X	X																			
Bromochloromethane																									
Bromodichloromethane																									
BTEX	X	X			X	X	X																		
Carbon disulfide	X				X	X																			
Chlorobenzene					X	X	X																		
Chloroethane					X	X																			
Chloroform					X	X																			
Chloromethane					X																				

Table 5.0-1. Matrix of COIs in All Media.

	Media																							
Analyte	Catch basin solids	In-line solids	Subsurface sediment porewater	Surface sediment porewater	Subsurface sediment	Surface sediment	In-river sediment trap	Stormwater outfall sediment trap	black crappie (fillet)	black crappie (fillet without skin)	black crappie (whole body)	brown bullhead (fillet without skin)	brown bullhead (whole body)	carp (body without fillet)	carp (combined fillet and body w/o fillet fractions)	carp (fillet)	carp (fillet without skin)	carp (whole body)	chinook (fillet)	chinook (fillet without skin)	chinook (stomach contents)	chinook (whole body)	clam (body without shell)	clam (depurated w/o shell)	crayfish (whole body)
cis-1,2-Dichloroethene						X																			
Dichlorodifluoromethane						X																			
Ethylbenzene	X				X	X	X																		
Isopropylbenzene	X	X			X	X																			
m,p-Xylene	X				X	X	X																		
Methyl iodide					X		X																		
Methyl isobutyl ketone	X				X	X																			
Methyl n-butyl ketone	X				X	X																			
Methyl tert-butyl ether					X	X																			
Methylcyclohexane					X																				
Methylene bromide																									
Methylene chloride					X	X																			
Methylethyl ketone	X				X	X	X																		
n-Butylbenzene	X					X																			
n-Propylbenzene	X				X	X																			
o-Xylene	X				X	X																			
Sec-butylbenzene	X				X	X																			
Styrene					X	X																			
tert-Butylbenzene						X																			
Tetrachloroethene	X				X	X																			
Toluene	X	X			X	X	X																		
trans-1,2-Dichloroethene					X	X																			
Trichloroethene	X				X	X																			
Trichlorofluoromethane																									
Vinyl acetate																									
Vinyl chloride					X	X																			
Xylene	X				X	X	X																		
Petroleum																									
C10-C12 Aliphatics					X																				
C10-C12 Aromatics					X																				
C12-C16 Aliphatics					X	X																			
C12-C16 Aromatics					X	X																			
C16-C21 Aliphatics					X	X																			
C16-C21 Aromatics					X	X																			
C21-C34 Aliphatics					X	X																			
C21-C34 Aromatics					X	X																			
C8-C10 Aliphatics					X																				
C8-C10 Aromatics					X																				
Diesel Range Hydrocarbons	X	X			X	X	X	X																	
Diesel Range Hydrocarbons (silica gel treated)					X	X																			
Fuel oil no. 2						X																			
Gasoline Range Hydrocarbons	X	X			X	X	X																		
Heavy oil						X																			
Heavy Oil Range Hydrocarbons	X	X			X	X																			
Lube Oil	X				X	X																			
Motor oil					X	X																			
Oil And Grease																									
Pencil pitch					X	X																			
Phytane						X																			
Pristane						X																			
Residual Range Hydrocarbons	X				X	X	X	X																	
Residual Range Hydrocarbons (silica gel treated)					X	X																			
Total Petroleum Hydrocarbons	X	X			X	X	X	X																	
Total Petroleum Hydrocarbons (silica gel treated)					X	X																			
PBDE Congeners																									
PBDE007																			X	X		X			
PBDE008 & PBDE011																			X	X		X			
PBDE010																			X	X		X			
PBDE012																			X	X		X			
PBDE012 & 013																									
PBDE013																			X	X		X			
PBDE015																			X	X		X			
PBDE017																			X	X		X			
PBDE017 & 025																									
PBDE025																			X	X		X			
PBDE028 & PBDE033																			X	X		X			
PBDE032																				X					
PBDE035																			X	X		X			
PBDE037																			X	X		X			
PBDE047																			X	X		X			
PBDE049																			X	X		X			
PBDE051																									
PBDE066																			X	X		X			
PBDE071																									
PBDE075																			X	X		X			
PBDE077																			X	X		X			
PBDE079																									
PBDE085																			X	X		X			
PBDE099																			X	X		X			
PBDE100																			X	X		X			
PBDE119																			X	X		X			
PBDE119 & 120																									
PBDE126																			X	X		X			
PBDE128																									
PBDE138 & PBDE166																			X			X			

Table 5.0-1. Matrix of COIs in All Media.

	Media																							
Analyte	Catch basin solids	In-line solids	Subsurface sediment porewater	Surface sediment porewater	Subsurface sediment	Surface sediment	In-river sediment trap	Stormwater outfall sediment trap	black crappie (fillet)	black crappie (fillet without skin)	black crappie (whole body)	brown bullhead (fillet without skin)	brown bullhead (whole body)	carp (body without fillet)	carp (combined fillet and body w/o fillet fractions)	carp (fillet)	carp (fillet without skin)	carp (whole body)	chinook (fillet)	chinook (fillet without skin)	chinook (stomach contents)	chinook (whole body)	clam (body without shell)	clam (depurated w/o shell)	crayfish (whole body)
PBDE140																			X	X		X			
PBDE153																			X	X		X			
PBDE154																			X	X		X			
PBDE155																			X	X		X			
PBDE183																			X	X		X			
PBDE203																									
PBDE206																			X	X		X			
PBDE207																			X	X		X			
PBDE208																			X	X		X			
PBDE209																									
Atterberg Limits																									
Liquid Limit					X	X																			
Plastic Limit					X	X																			
Plasticity Index					X	X																			
Grain Size																									
< 0.075 mm	X	X			X	X		X																	
> 0.075 mm	X	X			X	X																			
>10 Phi clay	X				X	X																			
>9 Phi clay					X	X	X																		
8-9 Phi clay	X				X	X	X																		
9-10 Phi clay	X				X	X																			
Clay					X	X																			
Coarse sand	X				X	X	X																		
Coarse silt	X				X	X	X																		
Fine gravel					X	X	X																		
Fine sand	X				X	X	X																		
Fine silt	X				X	X	X																		
Fines	X				X	X	X	X																	
Granule					X																				
Gravel	X				X	X																			
Mean grain size					X	X																			
Median grain size					X	X																			
Medium gravel					X	X	X																		
Medium sand	X				X	X	X																		
Medium silt	X				X	X	X																		
Medium-fine gravel					X																				
Sand					X	X																			
Sieve 10					X	X																			
Sieve 100					X	X																			
Sieve 140					X	X		X																	
Sieve 20					X	X		X																	
Sieve 200					X	X		X																	
Sieve 230					X	X																			
Sieve 4					X	X																			
Sieve 40					X	X		X																	
Sieve 60					X	X		X																	
Silt					X	X																			
Very coarse sand	X				X	X	X																		
Very fine sand	X				X	X	X																		
Very fine silt	X				X	X	X																		
Radioisotopes																									
Beryllium-7					X	X																			
Cesium-137					X	X																			
Lead-210					X	X																			
Radium-226					X	X																			

Notes:
COI - chemical of concern
PAH - polycyclic aromatic hydrocarbon
PBDE - polybrominated diphenyl ether
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
SVOC - semivolatile organic compound
TZW - transition zone water
VOC - volatile organic compound

Table 5.0-1. Matrix of COIs in All Media.

Analyte	Media																							
	lab clam (body without shell)	lamprey (whole body)	largescale sucker (whole body)	Lumbriculus variegatus (whole body)	multiplate invertebrates (whole body)	mussel (body without shell)	northern pikeminnow (whole body)	Pacific lamprey (whole body)	peamouth (whole body)	sculpin (whole body)	smallmouth bass (body without fillet)	smallmouth bass (combined fillet and body w/o fillet fractions)	smallmouth bass (fillet)	smallmouth bass (fillet without skin)	smallmouth bass (whole body)	sturgeon (fillet without skin)	sturgeon (stomach contents)	sturgeon (whole body)	TZW	Ground water	Storm water	Seep	Surface water	Surface water XAD-C	Surface water XAD-F
Conventionals																									
Acid Volatile Sulfides																									
Alkalinity																			X	X	X		X		
Ammonia																				X					
Bicarbonate																				X			X		
Calcium carbonate																			X						
Carbon dioxide																			X						
Chloride																			X	X	X		X		
Conductivity																			X		X		X		
Cyanide																			X	X			X		
Cyanide amenable to chlorination																			X	X			X		
Depth																							X		
Dissolved organic carbon																			X		X		X		
Dissolved oxygen																			X		X		X		
Ethane																			X						
Ethylene																			X						
Flow																					X				
Free cyanide																				X					
Hardness as CaCO3																					X		X		
Lipids	X	X	X	X		X	X	X	X	X	X	X	X		X	X	X	X							
Methane																			X						
Moisture																									
Nitrate																			X	X	X		X		
Nitrite																			X						
Oxidation-Reduction Potential																			X		X		X		
Oxygen																					X				
Perchlorate																			X				X		
pH																			X		X		X		
Phosphorus																			X		X				
Silica																					X				
Specific Gravity																									
Sulfate																			X	X	X		X		
Sulfide																			X						
Temperature																			X		X		X		
Total dissolved solids																			X		X		X		
Total organic carbon																			X		X		X		
Total solids	X	X	X	X	X	X	X		X	X	X	X	X		X		X	X							
Total suspended solids																			X		X	X	X		
Total suspended solids w/0.45 um filter																							X		
Total volatile solids																									
Turbidity																			X		X		X		
Metals																									
Aluminum	X	X	X	X	X	X	X		X	X	X	X	X		X	X	X	X	X	X	X		X		
Antimony	X	X	X	X	X	X		X		X	X	X	X		X				X	X	X	X	X		
Arsenic	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X		
Arsenic pentavalent																									
Arsenic trivalent																									
Barium																X			X	X	X	X	X		
Beryllium																			X	X	X				
Boron																					X				
Cadmium	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	X		
Calcium								X								X			X	X	X		X		
Chromium	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X		
Chromium hexavalent																							X		
Cobalt								X								X			X		X		X		
Copper	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X		
Iron								X								X			X	X	X		X		
Lead	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X		
Magnesium								X								X			X	X	X		X		
Manganese			X				X	X	X	X	X	X	X		X	X			X	X	X	X	X		
Mercury	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Methylmercury																									
Molybdenum																					X				
Nickel	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X		
Potassium								X								X			X	X	X		X		
Selenium	X	X		X	X	X	X	X	X	X		X	X		X	X	X	X	X	X	X		X		
Silicon																					X				
Silver	X	X		X	X	X		X		X	X	X	X				X	X	X	X	X		X		
Sodium								X								X			X	X	X		X		
Thallium			X				X		X	X	X	X	X		X				X	X	X		X		
Tin																					X				
Titanium																			X		X				
Vanadium																			X		X		X		
Zinc	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X		
Butyltins																									
Butyltin ion	X			X		X																	X		
Dibutyltin dichloride																									
Dibutyltin ion	X			X		X						X	X										X		
Monobutyltin trichloride																									
Tetrabutyltin				X																					
Tributyltin																									
Tributyltin chloride																									
Tributyltin ion	X	X		X		X				X		X	X					X			X		X		
PCB Aroclors																									
Aroclor 1016																					X				

Table 5.0-1. Matrix of COIs in All Media

Analyte	Media																							
	lab clam (body without shell)	lamprey (whole body)	largescale sucker (whole body)	Lumbriculus variegatus (whole body)	multiplate invertebrates (whole body)	mussel (body without shell)	northern pikeminnow (whole body)	Pacific lamprey (whole body)	peamouth (whole body)	sculpin (whole body)	smallmouth bass (body without fillet)	smallmouth bass (combined fillet and body w/o fillet fractions)	smallmouth bass (fillet)	smallmouth bass (fillet without skin)	smallmouth bass (whole body)	sturgeon (fillet without skin)	sturgeon (stomach contents)	sturgeon (whole body)	TZW	Ground water	Storm water	Seep	Surface water	Surface water XAD-C	Surface water XAD-F
Aroclor 1221																									
Aroclor 1232															X										
Aroclor 1242	X																				X				
Aroclor 1248			X				X		X	X			X		X								X		
Aroclor 1254				X				X													X	X	X		
Aroclor 1260			X				X		X	X			X		X	X					X		X		
Aroclor 1262																									
Aroclor 1268																					X				
Aroclors	X		X	X			X	X	X	X			X		X	X					X	X	X		
PCB Congeners																									
PCB001	X	X		X	X	X		X		X	X	X	X		X	X		X			X			X	X
PCB002	X	X		X	X	X		X		X	X	X	X		X	X					X			X	X
PCB003	X	X		X	X	X		X		X	X	X	X		X	X		X			X			X	X
PCB004	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB004 & 010																					X				
PCB005	X	X		X	X	X		X		X	X	X	X		X	X		X						X	X
PCB005 & 008																					X				
PCB006	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB007	X	X		X	X	X		X		X	X	X	X		X	X		X					X	X	X
PCB007 & 009																					X				
PCB008	X	X		X	X	X		X		X	X	X	X		X	X		X			X			X	X
PCB009	X	X		X	X	X		X		X	X	X	X		X	X		X						X	X
PCB010	X	X		X	X			X		X	X	X	X		X	X		X						X	X
PCB011	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X		X	X	X
PCB012																									
PCB012 & 013	X	X		X	X	X		X		X	X	X	X		X	X		X			X			X	X
PCB013																									
PCB014	X	X		X				X																X	X
PCB015	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB016	X	X		X	X	X		X		X	X	X	X		X	X		X			X			X	X
PCB016 & 032																					X				
PCB017	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB018	X			X																	X				
PCB018 & 030	X	X		X	X	X		X		X	X	X	X		X	X		X			X			X	X
PCB019	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB020																									
PCB020 & 021 & 033																					X				
PCB020 & 028	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB021																									
PCB021 & 033	X	X		X	X	X		X		X	X	X	X		X	X		X			X			X	X
PCB022	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB023	X	X		X	X	X		X		X	X	X	X		X	X					X			X	X
PCB024	X	X		X	X	X		X		X	X	X	X		X	X		X						X	X
PCB024 & 027																					X				
PCB025	X	X		X	X	X		X		X	X	X	X		X	X		X			X			X	X
PCB026																					X				
PCB026 & 029	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB027	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB028	X			X																	X				
PCB029																					X				
PCB030																					X				
PCB031	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X		X	X	X
PCB032	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB033	X																								
PCB034	X	X		X	X	X		X		X	X	X	X		X	X		X			X			X	X
PCB035	X	X		X	X	X		X		X		X	X		X						X			X	X
PCB036	X	X		X	X	X		X		X					X						X			X	X
PCB037	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB038	X	X		X		X		X		X	X	X	X		X	X		X			X			X	X
PCB039	X	X		X	X	X		X		X	X	X	X		X	X		X			X			X	X
PCB040																					X				
PCB040 & 041 & 071	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB041																									
PCB041 & 064 & 071 & 072																					X				
PCB042	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB042 & 059																					X				
PCB043	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB043 & 049																					X				
PCB044	X			X																	X				
PCB044 & 047 & 065	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB045																					X				
PCB045 & 051	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB046	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB047																					X		X		
PCB048	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB048 & 075																					X				
PCB049	X			X																					
PCB049 & 069	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB050																					X				
PCB050 & 053	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB051																					X		X		
PCB052	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X		X	X	X
PCB052 & 069																					X				
PCB053																					X				
PCB054	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB055	X	X		X		X					X	X	X		X						X			X	X

Table 5.0-1. Matrix of COIs in All Media.

Analyte	Media																								
	lab clam (body without shell)	lamprey (whole body)	largescale sucker (whole body)	Lumbriculus variegatus (whole body)	multiplate invertebrates (whole body)	mussel (body without shell)	northern pikeminnow (whole body)	Pacific lamprey (whole body)	peamouth (whole body)	sculpin (whole body)	smallmouth bass (body without fillet)	smallmouth bass (combined fillet and body w/o fillet fractions)	smallmouth bass (fillet)	smallmouth bass (fillet without skin)	smallmouth bass (whole body)	sturgeon (fillet without skin)	sturgeon (stomach contents)	sturgeon (whole body)	TZW	Ground water	Storm water	Seep	Surface water	Surface water XAD-C	Surface water XAD-F
PCB056	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB056 & 060																					X				
PCB057	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB058	X	X		X	X			X		X	X	X	X		X	X	X	X			X			X	X
PCB059 & 062 & 075	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB060	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB061																									
PCB061 & 070																					X				
PCB061 & 070 & 074 & 076	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB062																					X				
PCB063	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB064	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB065																					X				
PCB066	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X		X	X	X
PCB066 & 076																					X				
PCB067	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB068	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB069																									
PCB070	X			X																					
PCB071																									
PCB072	X	X		X	X	X		X		X	X	X	X		X	X	X	X						X	X
PCB073	X	X		X	X	X				X	X	X	X		X	X	X	X			X			X	X
PCB074	X			X																	X				
PCB076																									
PCB077	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB078												X	X		X						X				X
PCB079	X	X		X	X	X		X		X	X	X	X		X	X		X			X			X	X
PCB080				X														X						X	
PCB081	X	X		X		X		X		X	X	X	X		X	X					X			X	X
PCB082	X	X		X	X	X		X		X	X	X	X		X	X		X			X			X	X
PCB083																					X				
PCB083 & 099	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB084	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB084 & 092																					X				
PCB085																									
PCB085 & 116																					X				
PCB085 & 116 & 117	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB086																					X				
PCB086 & 087 & 097 & 108 & 119 & 125	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB087	X			X																					
PCB087 & 117 & 125																					X				
PCB088																									
PCB088 & 091	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB089	X	X		X	X	X		X		X	X	X	X		X	X		X			X			X	X
PCB090				X																					
PCB090 & 101																					X				
PCB090 & 101 & 113	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB091																									
PCB092	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB093																									
PCB093 & 095 & 098 & 100 & 102	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB094	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB095	X			X																					
PCB095 & 098 & 102																					X				
PCB096	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB097				X																	X				
PCB098																									
PCB099	X			X																	X				
PCB100																					X				
PCB101	X			X																					
PCB102																									
PCB103	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB104	X	X		X	X	X		X		X	X	X	X		X	X	X	X						X	X
PCB105	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB106				X	X					X		X	X											X	X
PCB106 & 118																					X				
PCB107																									
PCB107 & 109																					X				
PCB107 & 124	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB108 & 112																					X				
PCB109	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB110	X			X																	X		X		
PCB110 & 115	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB111	X	X		X	X	X		X		X	X	X	X		X	X	X	X					X	X	X
PCB111 & 115																					X				
PCB112	X			X	X					X					X									X	X
PCB113																					X				
PCB114	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB115																							X		
PCB116																									
PCB117																									
PCB118	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X		X	X	X
PCB119				X																	X				
PCB120	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB121	X	X		X	X	X		X		X	X	X	X		X	X	X	X						X	X
PCB122	X	X		X	X	X		X		X	X	X	X		X	X		X			X			X	X

Table 5.0-1. Matrix of COIs in All Media.

Analyte	Media																							
	lab clam (body without shell)	lamprey (whole body)	largescale sucker (whole body)	Lumbriculus variegatus (whole body)	multiplate invertebrates (whole body)	mussel (body without shell)	northern pikeminnow (whole body)	Pacific lamprey (whole body)	peamouth (whole body)	sculpin (whole body)	smallmouth bass (body without fillet)	smallmouth bass (combined fillet and body w/o fillet fractions)	smallmouth bass (fillet)	smallmouth bass (fillet without skin)	smallmouth bass (whole body)	sturgeon (fillet without skin)	sturgeon (stomach contents)	sturgeon (whole body)	TZW	Ground water	Storm water	Seep	Surface water	Surface water XAD-C	Surface water XAD-F
PCB123	X	X		X	X	X		X		X	X	X	X		X	X		X			X			X	X
PCB124																					X				
PCB125																									
PCB126	X	X		X	X	X		X		X	X	X	X		X	X					X			X	X
PCB127	X	X		X	X			X		X	X	X	X		X	X					X			X	X
PCB128				X																					
PCB128 & 162																					X				
PCB128 & 166	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB129																					X				
PCB129 & 138 & 160 & 163	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB130	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB131	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB132	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB132 & 161																					X				
PCB133	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB133 & 142																					X				
PCB134																									
PCB134 & 143	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB135																					X				
PCB135 & 151 & 154	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB136	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB137	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB138	X			X																					
PCB138 & 163 & 164																					X				
PCB139																									
PCB139 & 140	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB139 & 149																					X				
PCB140																					X				
PCB141	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB142	X	X		X						X								X						X	X
PCB143																									
PCB144	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB145	X	X		X	X	X		X		X	X	X	X		X	X		X			X			X	X
PCB146	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB146 & 165																					X				
PCB147																					X				
PCB147 & 149	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB148	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB149	X			X																					
PCB150	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB151	X			X																	X				
PCB152	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB153	X			X																	X				
PCB153 & 168	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB154																					X				
PCB155	X	X		X	X	X		X		X	X	X	X		X	X	X	X						X	X
PCB156				X				X		X					X	X					X				
PCB156 & 157	X	X		X	X	X				X	X	X	X				X	X			X			X	X
PCB157				X				X		X					X	X					X				
PCB158	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB158 & 160																					X				
PCB159	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB160																									
PCB161												X	X												
PCB162	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB163																									
PCB164	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB165	X	X		X	X	X		X		X	X	X	X		X	X	X	X						X	X
PCB166				X																	X				
PCB167	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB168																					X				
PCB169	X							X		X					X	X					X			X	X
PCB170	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB171																					X				
PCB171 & 173	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB172	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB173																					X				
PCB174	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB175	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB176	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB177	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB178	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB179	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB180	X			X																	X				
PCB180 & 193	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB181	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB182	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB182 & 187																					X				
PCB183				X																	X				
PCB183 & 185	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB184	X	X		X	X	X		X		X	X	X	X		X	X		X			X			X	X
PCB185																					X				
PCB186	X			X	X			X		X		X	X								X			X	X
PCB187	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB188	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB189	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X

Table 5.0-1. Matrix of COIs in All Media.

Analyte	Media																								
	lab clam (body without shell)	lamprey (whole body)	largescale sucker (whole body)	Lumbriculus variegatus (whole body)	multiplate invertebrates (whole body)	mussel (body without shell)	northern pikeminnow (whole body)	Pacific lamprey (whole body)	peamouth (whole body)	sculpin (whole body)	smallmouth bass (body without fillet)	smallmouth bass (combined fillet and body w/o fillet fractions)	smallmouth bass (fillet)	smallmouth bass (fillet without skin)	smallmouth bass (whole body)	sturgeon (fillet without skin)	sturgeon (stomach contents)	sturgeon (whole body)	TZW	Ground water	Storm water	Seep	Surface water	Surface water XAD-C	Surface water XAD-F
PCB190	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB191	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB192								X																X	X
PCB193																					X				
PCB194	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB195	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB196	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB196 & 203																					X				
PCB197																					X				
PCB197 & 200	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB198																					X				
PCB198 & 199	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB199																					X				
PCB200																					X				
PCB201	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB202	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB203	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB204	X	X		X		X		X		X	X	X	X		X	X		X			X			X	X
PCB205	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB206	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB207	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB208	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
PCB209	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X		X	X	X
Total PCB Congeners	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X		X	X	X
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X		X	X	X
PCB Homologs																									
Dichlorobiphenyl homologs	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X		X	X	X
Heptachlorobiphenyl homologs	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
Hexachlorobiphenyl homologs	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
Monochlorobiphenyl homologs	X	X		X	X	X		X		X	X	X	X		X	X		X			X			X	X
Nonachlorobiphenyl homologs	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
Octachlorobiphenyl homologs	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X			X	X
Pentachlorobiphenyl homologs	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X		X	X	X
Tetrachlorobiphenyl homologs	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X		X	X	X
Trichlorobiphenyl homologs	X	X		X	X	X		X		X	X	X	X		X	X	X	X			X		X	X	X
PCDD/Fs																									
1,2,3,4,6,7,8-Heptachlorodibenzofuran	X	X		X	X	X		X		X	X	X			X	X		X		X	X			X	X
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	X	X		X	X	X		X		X	X	X	X		X	X		X	X	X	X			X	X
1,2,3,4,7,8,9-Heptachlorodibenzofuran	X	X		X	X	X				X	X	X	X		X	X		X	X	X				X	X
1,2,3,4,7,8-Hexachlorodibenzofuran	X	X		X	X	X		X		X	X	X	X		X	X		X	X	X				X	X
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	X	X		X	X	X		X		X	X	X	X		X	X		X		X				X	X
1,2,3,6,7,8-Hexachlorodibenzofuran	X	X		X	X	X		X		X	X	X	X		X	X		X	X	X				X	X
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	X	X		X	X	X		X		X	X	X	X		X	X		X		X				X	X
1,2,3,7,8,9-Hexachlorodibenzofuran	X	X		X						X	X	X	X		X			X		X				X	X
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	X	X		X	X	X		X		X	X	X	X		X	X		X		X				X	X
1,2,3,7,8-Pentachlorodibenzofuran	X	X		X	X	X		X		X	X	X	X		X	X		X	X	X				X	X
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	X	X		X	X	X		X		X	X	X	X		X	X		X		X				X	X
2,3,4,6,7,8-Hexachlorodibenzofuran	X			X		X		X		X	X	X	X		X	X		X		X				X	X
2,3,4,7,8-Pentachlorodibenzofuran	X	X		X	X	X		X		X	X	X	X		X	X		X	X	X				X	X
2,3,7,8-Tetrachlorodibenzofuran	X	X		X	X	X		X		X	X	X	X		X	X		X	X	X				X	X
2,3,7,8-Tetrachlorodibenzo-p-dioxin	X	X		X	X	X		X		X	X	X	X		X	X		X						X	X
Dioxin/furan TCDD toxicity equivalent (ND = 0)	X	X		X	X	X		X		X	X	X	X		X	X		X	X	X	X			X	X
Total TCDD toxicity equivalent (ND = 0)	X	X		X	X	X		X		X	X	X	X		X	X	X	X	X	X	X		X	X	X
PCDD/F Homologs																									
Heptachlorodibenzofuran homologs	X	X		X	X	X		X		X	X	X			X	X		X	X	X	X			X	X
Heptachlorodibenzo-p-dioxin homologs	X	X		X	X	X		X		X	X	X	X		X	X		X	X	X	X			X	X
Hexachlorodibenzofuran homologs	X	X		X	X	X		X		X	X	X	X		X	X		X	X	X	X			X	X
Hexachlorodibenzo-p-dioxin homologs	X	X		X	X	X		X		X	X	X	X		X	X		X	X	X				X	X
Octachlorodibenzofuran	X	X		X	X	X				X	X	X	X		X	X				X	X			X	X
Octachlorodibenzo-p-dioxin	X	X		X	X	X		X		X	X	X	X		X	X		X		X	X			X	X
Pentachlorodibenzofuran homologs	X	X		X	X	X		X		X	X	X	X		X	X		X	X	X	X			X	X
Pentachlorodibenzo-p-dioxin homologs	X	X		X	X	X		X		X	X	X	X		X	X		X		X				X	X
Tetrachlorodibenzofuran homologs	X	X		X	X	X		X		X	X	X	X		X	X		X	X	X	X			X	X
Tetrachlorodibenzo-p-dioxin homologs	X	X		X	X	X		X		X	X	X	X		X	X		X	X	X				X	X
Total PCDD/F	X	X		X	X	X		X		X	X	X	X		X	X		X	X	X	X			X	X
Pesticides																									
2,4'-DDD	X	X	X	X	X	X	X			X	X	X	X		X		X	X	X		X			X	X
2,4'-DDE	X	X		X	X	X	X			X	X	X	X				X	X			X			X	X
2,4'-DDT	X	X	X	X	X	X	X		X	X	X	X	X		X		X	X	X		X		X	X	X
4,4'-DDD	X	X	X	X	X	X	X		X	X	X	X	X		X		X	X	X		X		X	X	X
4,4'-DDE	X	X	X	X	X	X	X		X	X	X	X	X		X	X	X	X	X		X		X	X	X
4,4'-DDT	X	X	X	X	X	X	X		X	X	X	X	X		X	X	X	X	X		X		X	X	X
Aldrin	X	X		X	X	X				X	X	X	X				X	X			X		X	X	X
alpha-Endosulfan	X	X	X	X	X					X					X	X		X			X		X	X	X
alpha-Hexachlorocyclohexane	X	X		X	X	X				X	X	X	X					X			X		X	X	X
beta-Endosulfan	X	X		X	X	X				X	X	X						X			X		X	X	X
beta-Hexachlorocyclohexane	X	X		X	X					X	X	X	X					X			X		X	X	X
Chlordane (cis & trans)																									
cis-Chlordane	X	X		X	X	X			X	X	X	X	X		X	X	X	X			X		X	X	X
cis-Nonachlor	X	X		X	X	X				X	X	X	X				X	X			X			X	X
delta-Hexachlorocyclohexane	X	X		X						X					X	X					X		X	X	X
Dieldrin	X	X		X	X	X				X	X	X	X		X	X	X	X			X		X	X	X
Endosulfan sulfate	X	X		X	X	X				X	X	X	X				X	X			X		X	X	X
Endrin	X	X		X	X	X				X	X	X	X					X			X		X	X	X
Endrin aldehyde											X	X	X		X						X		X		

Table 5.0-1. Matrix of COIs in All Media

Analyte	Media																							
	lab clam (body without shell)	lamprey (whole body)	largescale sucker (whole body)	Lumbriculus variegatus (whole body)	multiplate invertebrates (whole body)	mussel (body without shell)	northern pikeminnow (whole body)	Pacific lamprey (whole body)	peamouth (whole body)	sculpin (whole body)	smallmouth bass (body without fillet)	smallmouth bass (combined fillet and body w/o fillet fractions)	smallmouth bass (fillet)	smallmouth bass (fillet without skin)	smallmouth bass (whole body)	sturgeon (fillet without skin)	sturgeon (stomach contents)	sturgeon (whole body)	TZW	Ground water	Storm water	Seep	Surface water	Surface water XAD-C	Surface water XAD-F
Endrin ketone	X	X		X						X	X	X	X					X			X		X	X	X
gamma-Hexachlorocyclohexane	X	X	X	X	X	X				X	X	X	X		X			X			X		X	X	X
Heptachlor	X	X		X	X	X				X	X	X	X					X			X		X	X	X
Heptachlor epoxide	X	X		X	X	X				X	X	X	X				X	X			X		X	X	X
Methoxychlor		X				X	X			X					X	X					X		X	X	X
Mirex	X																				X				
Oxychlordane	X	X	X	X	X	X				X	X	X	X		X		X	X			X			X	X
Total Chlordanes	X	X	X	X	X	X			X	X	X	X	X		X	X	X	X			X		X	X	X
Total Endosulfan	X	X	X	X	X	X				X	X	X	X		X	X	X	X			X		X	X	X
Total of 2,4' and 4,4'-DDD	X	X	X	X	X	X	X		X	X	X	X	X		X		X	X	X		X		X	X	X
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	X	X	X	X	X	X	X		X	X	X	X	X		X	X	X	X	X		X		X	X	X
Total of 2,4' and 4,4'-DDE	X	X	X	X	X	X	X		X	X	X	X	X		X	X	X	X	X		X		X	X	X
Total of 2,4' and 4,4'-DDT	X	X	X	X	X	X	X		X	X	X	X	X		X	X	X	X	X		X		X	X	X
Total of 4,4'-DDD, -DDE, -DDT	X	X	X	X	X		X		X	X			X		X	X			X		X		X	X	X
Toxaphene																					X				
trans-Chlordane	X	X		X	X	X				X	X	X	X				X	X			X		X	X	X
trans-Nonachlor	X	X	X	X	X	X				X	X	X	X		X		X	X			X			X	X
Herbicides																									
2,4,5-T																					X				
2,4-D																			X		X		X		
2,4-DB																					X		X		
Dalapon																			X		X		X		
Dicamba																					X				
Dichloroprop																			X		X				
MCPA																					X				
MCPP																					X		X		
Silvex																			X						
PAHs																									
1,6,7-Trimethylnaphthalene																									
1-Methylnaphthalene								X		X	X	X	X			X					X		X		
1-Methylphenanthrene																									
2,6-Dimethylnaphthalene																									
2-Methylnaphthalene	X	X	X	X		X		X		X	X	X	X		X	X	X	X	X	X	X		X	X	X
Acenaphthene	X	X		X		X		X		X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
Acenaphthylene	X	X		X		X		X		X	X	X	X			X	X	X	X	X	X		X	X	X
Anthracene	X	X		X		X		X		X	X	X	X			X	X	X	X	X	X	X	X	X	X
Benzo(a)anthracene	X			X		X				X		X	X				X		X	X	X	X	X	X	X
Benzo(a)pyrene	X	X		X		X				X		X	X				X		X	X	X	X	X	X	X
Benzo(b)fluoranthene	X	X		X		X				X		X	X				X		X	X	X	X	X	X	X
Benzo(b+k)fluoranthene																						X			
Benzo(e)pyrene																									
Benzo(g,h,i)perylene	X	X		X		X				X	X	X	X				X		X	X	X		X	X	X
Benzo(j+k)fluoranthene																								X	X
Benzo(k)fluoranthene	X	X		X		X				X		X	X				X		X	X	X		X		
Benzofluoranthenes																					X				
C1-Chrysene																									
C1-Dibenzothiophene																									
C1-Fluoranthene/pyrene																									
C1-Fluorene																									
C1-Naphthalene																									
C1-Phenanthrene/anthracene																									
C2-Chrysene																									
C2-Dibenzothiophene																									
C2-Fluoranthene/pyrene																									
C2-Fluorene																									
C2-Naphthalene																									
C2-Phenanthrene/anthracene																									
C3-Chrysene																									
C3-Dibenzothiophene																									
C3-Fluoranthene/pyrene																									
C3-Fluorene																									
C3-Naphthalene																									
C3-Phenanthrene/anthracene																									
C4-Chrysene																									
C4-Dibenzothiophene																									
C4-Naphthalene																									
C4-Phenanthrene/anthracene																									
Chrysene	X	X		X		X				X		X	X				X		X	X	X	X	X	X	X
Dibenzo(a,h)anthracene	X			X		X						X	X				X		X	X	X		X	X	X
Dibenzothiophene										X	X	X	X												
Fluoranthene	X	X		X		X		X		X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
Fluorene	X	X	X	X		X		X		X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
High Molecular Weight PAH	X	X		X		X		X		X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
Indeno(1,2,3-cd)pyrene	X	X		X		X					X	X	X				X		X	X	X		X	X	X
Low Molecular Weight PAH	X	X	X	X		X		X		X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
Naphthalene	X	X	X	X		X		X		X	X	X	X		X		X	X	X	X	X		X	X	X
Perylene																									
Phenanthrene	X	X		X		X		X		X	X	X	X		X		X	X	X	X	X	X	X	X	X
Pyrene	X	X		X		X		X		X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
Total cPAHs	X	X		X		X				X	X	X	X				X		X	X	X	X	X	X	X
Total PAHs	X	X	X	X		X		X		X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
Phthalates																									
Bis(2-ethylhexyl) phthalate	X	X	X	X		X				X	X	X	X		X			X	X		X	X	X	X	X
Butylbenzyl phthalate															X						X		X	X	X
Dibutyl phthalate	X			X		X						X	X						X		X	X	X	X	

Table 5.0-1. Matrix of COIs in All Media

Analyte	Media																							
	lab clam (body without shell)	lamprey (whole body)	largescale sucker (whole body)	Lumbriculus variegatus (whole body)	multiplate invertebrates (whole body)	mussel (body without shell)	northern pikeminnow (whole body)	Pacific lamprey (whole body)	peamouth (whole body)	sculpin (whole body)	smallmouth bass (body without fillet)	smallmouth bass (combined fillet and body w/o fillet fractions)	smallmouth bass (fillet)	smallmouth bass (fillet without skin)	smallmouth bass (whole body)	sturgeon (fillet without skin)	sturgeon (stomach contents)	sturgeon (whole body)	TZW	Ground water	Storm water	Seep	Surface water	Surface water XAD-C	Surface water XAD-F
Diethyl phthalate	X											X	X							X	X		X	X	
Dimethyl phthalate	X																		X		X		X	X	X
Di-n-octyl phthalate										X					X						X		X	X	
SVOCs																									
1,2,4-Trichlorobenzene																			X						
1,2-Dichlorobenzene																			X	X	X				
1,2-Diphenylhydrazine																							X		
1,3-Dichlorobenzene																			X	X					
1,4-Dichlorobenzene																			X	X	X		X		
2,4-Dinitrotoluene																							X		
2,6-Dinitrotoluene																							X		
2-Chloronaphthalene																							X		
2-Nitroaniline																							X		
3,3'-Dichlorobenzidine																							X		
3-Nitroaniline																							X		
4-Bromophenyl phenyl ether																							X		
4-Chloroaniline				X																			X		
4-Chlorophenyl phenyl ether				X																	X		X		
4-Nitroaniline																							X		
Aniline																							X		
Azobenzene																									
Benzoic acid	X									X	X	X									X		X		
Benzyl alcohol	X			X		X				X	X	X	X					X					X		
Bis(2-chloro-1-methylethyl) ether																							X		
Bis(2-chloroethoxy) methane											X	X											X		
Bis(2-chloroethyl) ether																							X		
Bis(2-chloroisopropyl) ether																									
Carbazole																			X		X		X		
Dibenzofuran	X			X				X		X	X	X			X	X			X	X	X		X		
Diphenyl																									
Hexachlorobenzene	X	X		X	X	X		X	X	X	X	X	X			X	X	X			X		X	X	X
Hexachlorobutadiene	X	X		X						X	X	X	X					X			X		X	X	X
Hexachlorocyclopentadiene																							X		
Hexachloroethane	X								X												X		X		
Isophorone																					X		X		
Nitrobenzene	X																						X		
N-Nitrosodimethylamine																									
N-Nitrosodiphenylamine				X																			X		
N-Nitrosodipropylamine																							X		
Retene								X																	
Phenols																									
2,3,4,5-Tetrachlorophenol																							X		
2,3,4,6;2,3,5,6-Tetrachlorophenol coelution																									
2,3,4,6-Tetrachlorophenol																							X		
2,3,5,6-Tetrachlorophenol																									
2,4,5-Trichlorophenol																					X		X		
2,4,6-Trichlorophenol				X																	X		X		
2,4-Dichlorophenol																					X		X		
2,4-Dimethylphenol								X											X	X	X		X		
2,4-Dinitrophenol																							X		
2-Chlorophenol																					X		X		
2-Methylphenol	X			X														X	X		X		X		
2-Nitrophenol																							X		
3- and 4-Methylphenol Coelution																					X				
4,6-Dinitro-2-methylphenol																							X		
4-Chloro-3-methylphenol										X													X		
4-Methylphenol				X						X	X	X						X			X		X		
4-Nitrophenol											X	X	X								X		X		
Pentachlorophenol	X	X		X																	X		X		
Phenol	X			X							X	X							X	X	X		X		
VOCs																									
1,1,1,2-Tetrachloroethane																									
1,1,1-Trichloroethane																			X						
1,1,2,2-Tetrachloroethane																			X						
1,1,2-Trichloroethane																			X						
1,1-Dichloroethane																			X	X					
1,1-Dichloroethene																			X	X			X		
1,2,3-Trichloropropane																			X						
1,2,4-Trimethylbenzene																			X		X		X		
1,2-Dichloroethane																			X	X					
1,2-Dichloropropane																			X						
1,3,5-Trimethylbenzene																			X		X		X		
1-Methyl-4-isopropylbenzene																			X						
Acetone																			X	X	X				
Acrolein																			X	X					
Acrylonitrile																				X					
Benzene																			X	X	X		X		
Bromochloromethane																			X						
Bromodichloromethane																			X	X	X				
BTEX																			X	X	X	X	X		
Carbon disulfide																			X	X					
Chlorobenzene																			X	X	X				
Chloroethane																			X	X					
Chloroform																			X	X	X				
Chloromethane																			X	X	X				

Table 5.0-1. Matrix of COIs in All Media.

Analyte	Media																							
	lab clam (body without shell)	lamprey (whole body)	largescale sucker (whole body)	Lumbriculus variegatus (whole body)	multiplate invertebrates (whole body)	mussel (body without shell)	northern pikeminnow (whole body)	Pacific lamprey (whole body)	peamouth (whole body)	sculpin (whole body)	smallmouth bass (body without fillet)	smallmouth bass (combined fillet and body w/o fillet fractions)	smallmouth bass (fillet)	smallmouth bass (fillet without skin)	smallmouth bass (whole body)	sturgeon (fillet without skin)	sturgeon (stomach contents)	sturgeon (whole body)	TZW	Ground water	Storm water	Seep	Surface water	Surface water XAD-C	Surface water XAD-F
cis-1,2-Dichloroethene																			X	X			X		
Dichlorodifluoromethane																									
Ethylbenzene																			X	X	X	X	X		
Isopropylbenzene																			X	X	X				
m,p-Xylene																			X	X	X	X	X		
Methyl iodide																				X					
Methyl isobutyl ketone																			X						
Methyl n-butyl ketone																			X						
Methyl tert-butyl ether																			X	X	X				
Methylcyclohexane																									
Methylene bromide																			X						
Methylene chloride																			X	X	X		X		
Methylethyl ketone																			X	X					
n-Butylbenzene																			X						
n-Propylbenzene																			X		X				
o-Xylene																			X	X	X	X	X		
Sec-butylbenzene																			X				X		
Styrene																			X	X					
tert-Butylbenzene																			X						
Tetrachloroethene																			X		X				
Toluene																			X	X	X		X		
trans-1,2-Dichloroethene																			X	X			X		
Trichloroethene																			X	X	X		X		
Trichlorofluoromethane																				X					
Vinyl acetate																			X						
Vinyl chloride																			X	X			X		
Xylene																			X	X	X	X	X		
Petroleum																									
C10-C12 Aliphatics																									
C10-C12 Aromatics																									
C12-C16 Aliphatics																									
C12-C16 Aromatics																									
C16-C21 Aliphatics																									
C16-C21 Aromatics																									
C21-C34 Aliphatics																									
C21-C34 Aromatics																									
C8-C10 Aliphatics																									
C8-C10 Aromatics																									
Diesel Range Hydrocarbons																			X		X	X			
Diesel Range Hydrocarbons (silica gel treated)																									
Fuel oil no. 2																									
Gasoline Range Hydrocarbons																			X		X				
Heavy oil																					X	X			
Heavy Oil Range Hydrocarbons																					X				
Lube Oil																			X						
Motor oil																									
Oil And Grease																					X	X			
Pencil pitch																									
Phytane																									
Pristane																									
Residual Range Hydrocarbons																			X		X				
Residual Range Hydrocarbons (silica gel treated)																									
Total Petroleum Hydrocarbons																			X		X				
Total Petroleum Hydrocarbons (silica gel treated)																									
PBDE Congeners																									
PBDE007								X								X									
PBDE008 & PBDE011								X								X									
PBDE010								X																	
PBDE012								X																	
PBDE012 & 013																X									
PBDE013								X																	
PBDE015								X								X									
PBDE017								X																	
PBDE017 & 025								X								X									
PBDE025								X																	
PBDE028 & PBDE033								X								X									
PBDE032																X									
PBDE035								X								X									
PBDE037								X								X									
PBDE047								X								X									
PBDE049								X								X									
PBDE051								X								X									
PBDE066								X								X									
PBDE071								X								X									
PBDE075								X								X									
PBDE077								X								X									
PBDE079								X								X									
PBDE085								X								X									
PBDE099								X								X									
PBDE100								X								X									
PBDE119								X																	
PBDE119 & 120								X								X									
PBDE126								X								X									
PBDE128																X									
PBDE138 & PBDE166								X								X									

Table 5.0-1. Matrix of COIs in All Media.

	Media																							
Analyte	lab clam (body without shell)	lamprey (whole body)	largescale sucker (whole body)	Lumbriculus variegatus (whole body)	multiplate invertebrates (whole body)	mussel (body without shell)	northern pikeminnow (whole body)	Pacific lamprey (whole body)	peamouth (whole body)	sculpin (whole body)	smallmouth bass (body without fillet)	smallmouth bass (combined fillet and body w/o fillet fractions)	smallmouth bass (fillet)	smallmouth bass (fillet without skin)	smallmouth bass (whole body)	sturgeon (fillet without skin)	sturgeon (stomach contents)	sturgeon (whole body)	TZW	Ground water	Storm water	Seep	Surface water	Surface water XAD-C	Surface water XAD-F
PBDE140								X								X									
PBDE153								X								X									
PBDE154								X								X									
PBDE155								X								X									
PBDE183								X								X									
PBDE203								X								X									
PBDE206								X								X									
PBDE207								X								X									
PBDE208								X								X									
PBDE209								X								X									
Atterberg Limits																									
Liquid Limit																									
Plastic Limit																									
Plasticity Index																									
Grain Size																									
< 0.075 mm																									
> 0.075 mm																									
>10 Phi clay																									
>9 Phi clay																									
8-9 Phi clay																									
9-10 Phi clay																									
Clay																									
Coarse sand																									
Coarse silt																									
Fine gravel																									
Fine sand																									
Fine silt																									
Fines																									
Granule																									
Gravel																									
Mean grain size																									
Median grain size																									
Medium gravel																									
Medium sand																									
Medium silt																									
Medium-fine gravel																									
Sand																									
Sieve 10																									
Sieve 100																									
Sieve 140																									
Sieve 20																									
Sieve 200																									
Sieve 230																									
Sieve 4																									
Sieve 40																									
Sieve 60																									
Silt																									
Very coarse sand																									
Very fine sand																									
Very fine silt																									
Radioisotopes																									
Beryllium-7																									
Cesium-137																									
Lead-210																									
Radium-226																									

Notes:
COI - chemical of concern
PAH - polycyclic aromatic hydrocarbon
PBDE - polybrominated diphenyl ether
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
SVOC - semivolatile organic compound
TZW - transition zone water
VOC - volatile organic compound

Table 5.0-2. Indicator Chemicals Identified for RI Purposes Based on Ecological and/or Human Health Risk Evaluations and Other Considerations.

	Selected Indicator Chemicals								RI CSM
Analyte	**Sediment**	**Surface Water**	**Biota**	**TZW**	**Loading**	**TZW Loading**	**Equilibrium Partitioning**	**Hybrid Model**	**CSM**
Conventionals									
Ammonia*									
Sulfide*									
Cyanide				X					
Perchlorate				X					
Metals									
Aluminum*									
Arsenic	X	X	X	X	X	X	X	X	X
Barium				X		X			
Cadmium	X		X	X		X			
Chromium	X		X		X				X
Copper	X	X	X	X	X	X	X	X	X
Lead	X	X	X	X	X	X	X		
Manganese				X		X			
Mercury	X		X		X	X	X	X	
Nickel	X			X	X	X			
Silver*									
Zinc	X	X	X	X	X	X			X
Butyltins									
Tributyltin ion	X		X		X		X	X	X
Butyltin*									
PCBs									
Modeled PCB Congener #1					X		X	X	
Modeled PCB Congener #2					X		X	X	
Total PCBs (congeners or Aroclors)	X	X	X		X		X		X
Total PCBs (TEQ) - mammalian WHO 2005 TEFs	X	X	X		X		X		
PCDD/Fs									
Total PCDD/Fs	X	X	X		X		X		X
TCDD TEQ - mammalian WHO 2005 TEFs	X	X	X		X		X		X
Herbicides									
Silvex ™				X					
Organochlorine Pesticides									
4,4'-DDD					X	X	X	X	
4,4'-DDT					X	X	X	X	
Total of 2,4' and 4,4'-DDD (Sum DDD)	X	X	X	X	X	X	X		
Total of 2,4' and 4,4'-DDE (Sum DDE)	X	X	X	X	X	X	X		
Total of 2,4' and 4,4'-DDT (Sum DDT)	X	X	X	X	X	X	X		
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	X	X	X	X	X	X	X		X
Aldrin	X	X	X		X		X		X
gamma-Hexachlorocyclohexane	X	X	X		X		X		
Total Chlordanes	X	X	X		X		X		X
Dieldrin	X	X	X		X		X		X
Endrin*									
Endrin ketone*									
delta-HCH*									

Table 5.0-2. Indicator Chemicals Identified for RI Purposes Based on Ecological and/or Human Health Risk Evaluations and Other Considerations.

	Selected Indicator Chemicals								RI CSM
Analyte	**Sediment**	**Surface Water**	**Biota**	**TZW**	**Loading**	**TZW Loading**	**Equilibrium Partitioning**	**Hybrid Model**	**CSM**
Polycyclic Aromatic Hydrocarbons									
LPAHs									
Naphthalene	X			X	X	X	X	X	
Phenanthrene	X					X			
Total LPAHs	X	X	X[a]			X			
HPAHs									
Benzo(a)anthracene*									
Benzo(a)pyrene	X	X		X	X	X	X	X	
Total Benzofluoranthese*									
Total HPAHs	X	X	X[a]	X		X			
Total PAHs	X	X	X[a]	X	X	X	X		X
Total Carcinogenic PAHs[b]	X	X	X[a]	X	X	X	X		
Phthalates									
Bis(2-ethylhexyl) phthalate	X		X		X		X	X	X
Butylbenzyl phthalate	X								
Dibutyl phthalate*									
Semivolatile Organic Compounds									
Benzyl Alcohol*									
Carbazole*									
Dibenzofuran*									
1,2-Dichlorobenzene				X		X			
Hexachlorobenzene	X	X	X		X				
Phenols									
Phenol*									
Pentachlorophenol	X			X	X				
Volatile Organic Compounds									
1,1,2-Trichloroethane				X		X			
1,2,4-Trimethylbenzene				X		X			
1,2-Dichloroethane				X		X			
Benzene				X		X			
Carbon disulfide				X		X			
Chlorobenzene				X		X			
Chloroethane				X		X			
Chloroform				X		X			
cis-1,2-Dichloroethene				X		X			
Ethylbenzene*				X		X			
Methylene chloride				X		X			
Toluene				X		X			
Trichloroethene*				X		X			
Vinyl chloride				X		X			
Total xylenes				X		X			
Petroleum (TPH)									
Diesel-Range Hydrocarbons	X			X	X				
Gasoline-Range Hydrocarbons				X	X				
Residual-Range Hydrocarbons	X			X	X				
Total Petroleum Hydrocarbons	X								

Table 5.0-2. Indicator Chemicals Identified for RI Purposes Based on Ecological and/or Human Health Risk Evaluations and Other Considerations.

	Selected Indicator Chemicals								RI CSM
Analyte	**Sediment**	**Surface Water**	**Biota**	**TZW**	**Loading**	**TZW Loading**	**Equilibrium Partitioning**	**Hybrid Model**	**CSM**

Notes:

* COC in the BERA but is not considered an IC unless indicated in TZW.

[a] Applies to clam tissue only

[b] A benzo(a)pyrene equivalent (BaPEqa) concentration was calculated by multiplying the carcinogenic PAHs by their respective potency equivalent factors (PEFs) and summing the resulting concentrations.

Analyte	PEF
Benzo(a)anthracene	0.1
Benzo(a)pyrene	1
Benzo(b)fluoranthene	0.1
Benzo(k)fluoranthene	0.01
Chrysene	0.001
Dibenzo(a,h)anthracene	1
Indeno(1,2,3-cd)pyrene	0.1

BaPEq - benzo(a)pyrene equivalent
BERA - baseline ecological risk assessment
COC - chemical of concern
CSM - conceptual site model
HPAH - high molecular weight polycyclic aromatic hydrocarbon
IC - indicator chemical
LPAH - low molecular weight polycyclic aromatic hydrocarbon
PAH - polycylic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
PEF - potency equivalent factor
RI - remedial investigation
TEF - toxicity equivalency factor
TEQ - toxic equivalent concentration
TPH - total petroleum hydrocarbons
TZW - transition zone water

Table 5.1-1. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Surface Sediment, Study Area (RM 1.9-11.8).

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location**	**Mean**	**Median[b]**	**95th[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location**	**Mean (half DL)**	**Median (half DL)[b]**	**95th (half DL)[b]**
Grain Size																
Fines	percent	1375	1375	100	0	105 T	DG01	54.1	61.3 T	92.2 V	0	105 T	DG01	54.1	61.3 T	92.2 V
Conventionals																
Total organic carbon	percent	1578	1574	99.7	0.00715 J	27	G006	1.8	1.75 V	3.11 V	0.00433 U	27	G006	1.79	1.75 V	3.1 V
Metals																
Arsenic	mg/kg	1507	1382	91.7	0.7	132	RB08	4.88	3.72 JV	8.98 V	0.7	132	RB08	4.7	3.6	8.58 V
Cadmium	mg/kg	1505	1355	90	0.0156 J	10.1	T4-UP13	0.416	0.251	1.3 V	0.00159 U	10.1	T4-UP13	0.395	0.249	1.19 V
Chromium	mg/kg	1490	1484	99.6	4.07 J	819 J	RB06	35	29.3 JV	55.8 V	4.07 J	819 J	RB06	34.9	29.3 JV	55.7 V
Copper	mg/kg	1508	1504	99.7	6.19 J	2830	UG01	61	38.6 V	172 V	6.19 J	2830	UG01	60.9	38.5 JV	171 V
Lead	mg/kg	1531	1516	99	2.4 T	13400 T	GWC1	48.7	15.9 JV	122 JV	2.4 T	13400 T	GWC1	48.3	15.7	122 JV
Mercury	mg/kg	1469	1338	91.1	0.006 J	65.2 T	GWC1	0.148	0.068 V	0.271 V	0.00189 U	65.2 T	GWC1	0.137	0.063	0.252 V
Nickel	mg/kg	1467	1450	98.8	6.22 J	594	PSY27	25.5	23.2 JV	35.9 V	6.22 J	594	PSY27	25.3	23.1	35.7 V
Zinc	mg/kg	1523	1523	100	9.7	4220	HA-43	153	105	375 V	9.7	4220	HA-43	153	105	375 V
Butyltins																
Tributyltin ion	µg/kg	315	297	94.3	0.45 J	47000	SD012	518	25	851 V	0.079 U	47000	SD012	489	23	743 V
PCB Aroclors																
Aroclors	µg/kg	1188	908	76.4	0.851 JT	27400 JT	G453	178	26 V	665 JV	0.851 JT	27400 JT	G453	146	19.5 V	532 V
PCB Congeners																
Total PCB Congeners	pg/g	252	252	100	1050 JT	35400000 T	G453	453000	36200 JV	1570000 JV	1050 JT	35400000 T	G453	453000	36200 JV	1570000 JV
Total PCBs[c]																
Total PCBs	µg/kg	1191	940	78.9	0.851 JT	35400 T	G453	213	26.2 V	641 V	0.851 JT	35400 T	G453	176	19.5 UT	553 JV
PCDD/F Homologs																
Total PCDD/F	pg/g	216	216	100	2.48 T	264000 T	07R006	2480	391 V	5620 JV	2.48 T	264000 T	07R006	2480	391 V	5620 JV
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g	217	217	100	0.00803 JT	14100 JT	07R006	74.1	1.28 JT	43.2 JV	0.00803 JT	14100 JT	07R006	74.1	1.28 JT	43.2 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g	264	264	100	0.00104 JT	239 T	G453	5.26	0.68 JV	22.5 JV	0.00104 JT	239 T	G453	5.26	0.68 JV	22.5 JV
Pesticides																
Aldrin	µg/kg	1097	253	23.1	0.00333 J	691 J	G355	5.16	0.534 J	10.6 JV	0.00333 J	691 J	G355	2.02	0.173 J	5 UV
Dieldrin	µg/kg	1141	243	21.3	0.00834 J	356 J	G453	2.62	0.281 J	5.93 JV	0.00834 J	356 J	G453	1.95	0.193 J	4.2 NJ
gamma-Hexachlorocyclohexane	µg/kg	1146	185	16.1	0.0031 J	430	07R006	4.68	1.47 J	7.28 JV	0.0031 J	430	07R006	1.54	0.206 UV	5 UV
Total Chlordanes	µg/kg	1144	728	63.6	0.031 JT	669 NJT	G355	5.09	0.847 JV	12.2 JV	0.031 JT	700 UT	G778	4.78	0.85 UV	12.4 JV
Total of 2,4' and 4,4'-DDD	µg/kg	1210	1013	83.7	0.051 NJT	11000 A	OSS004	52.1	3.2 JT	128 JV	0.041 UT	11000 A	OSS004	43.9	2.51 JV	110 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg	1210	1082	89.4	0.051 NJT	84900 A	OSS002	278	7.39 JV	470 JV	0.051 NJT	84900 A	OSS002	249	6.5 JV	376 V
Total of 2,4' and 4,4'-DDE	µg/kg	1207	989	81.9	0.052 JT	2530 NJT	G453	19	2.37 JT	42.3 JV	0.0384 UT	2530 NJT	G453	16.4	2.19 T	40.8 JV
Total of 2,4' and 4,4'-DDT	µg/kg	1209	900	74.4	0.077 JT	81000 A	OSS002	255	2.5 JV	281 JV	0.0441 UJT	81000 A	OSS002	190	1.68 UA	153 JV
Polycyclic Aromatic Hydrocarbons																
Total BaPEq	µg/kg	1603	1555	97	0.00314 JT	449000 T	G225	2740	127 T	7120 V	0.00314 JT	449000 T	G225	2660	119 T	7040 V
Benzo(a)pyrene	µg/kg	1603	1523	95	0.86 J	340000	G225	2050	91.5 T	5090 V	0.24 U	340000	G225	1950	83	4900 V
High Molecular Weight PAH	µg/kg	1603	1582	98.7	2.16 JT	4350000 T	G225	20400	970 JV	52100 JV	2.16 JT	4350000 T	G225	20100	927 T	49300 V
Low Molecular Weight PAH	µg/kg	1603	1525	95.1	0.65 JT	2910000 T	G225	8380	187 T	12000 JV	0.65 JT	2910000 T	G225	7970	170 T	10400 JV
Naphthalene	µg/kg	1608	1068	66.4	0.27 J	73000 J	AN-1-3; G225; G294-1	509	27.4 V	709 V	0.27 J	73000 J	AN-1-3; G225; G294-1	346	14 V	366 V
Phenanthrene	µg/kg	1603	1520	94.8	0.53 J	1700000	G225	4590	95 JV	6610 V	0.53 J	1700000	G225	4350	82	5700 JV
Total cPAHs	µg/kg	1603	1555	97	0.5 JT	1700000 T	G225	9990	520 T	27000 JV	0.5 JT	1700000 T	G225	9690	480 T	25000 V
Total PAHs	µg/kg	1603	1582	98.7	3.3 JT	7260000 T	G225	28500	1170 V	66600 JV	3.3 JT	7260000 T	G225	28100	1120 T	65600 JV
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg	1470	895	60.9	7 J	440000 J	G367	1090	150	2230 JV	2 U	440000 J	G367	766	93 JV	1770 V
Butylbenzyl phthalate	µg/kg	1461	463	31.7	2.2 J	2800	G111	60.8	18.8	200 JV	1.6 U	10000 U	GRAB-05	45.6	9.5 UT	155 U

Table 5.1-1. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Surface Sediment, Study Area (RM 1.9-11.8).

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location**	**Mean**	**Median[b]**	**95th[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location**	**Mean (half DL)**	**Median (half DL)[b]**	**95th (half DL)[b]**
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg	1315	170	12.9	2.2 J	244 J	52A05	12.7	9.3 JV	22 JV	2.1 U	6600 U	A2GS12	34.2	7.5 U	107 UV
Hexachlorobenzene	µg/kg	1340	410	30.6	0.0122 J	340	OSS004	3.95	0.672 JV	6.11 JV	0.0122 J	10000 U	GRAB-05	19.5	1.26 JV	13 UV
Phenols																
Pentachlorophenol	µg/kg	1410	245	17.4	0.27 J	8410 J	52C01	63.1	5.7 J	162 JV	0.167 U	30500 U	GRAB-05	74.2	2.5 UV	145 UV
Petroleum																
Diesel Range Hydrocarbons	mg/kg	802	743	92.6	3.07	20000 J	G294-1	284	85 J	748 JV	2.6 UJ	20000 J	G294-1	265	82 JV	699 JV
Diesel Range Hydrocarbons (silica gel treated)	mg/kg	200	169	84.5	6.2 JT	1900 J	G639	84.4	46 J	226 JV	3.3 U	1900 J	G639	72.9	42.9 JV	191 JV
Residual Range Hydrocarbons	mg/kg	622	600	96.5	7.7 J	18000 J	G453	698	430 JV	1600 JV	7.7 J	18000 J	G453	675	415 JV	1550 JV
Residual Range Hydrocarbons (silica gel treated)	mg/kg	200	185	92.5	7.1 J	1400 J	G639	181	160 J	374 JV	7.1 J	1400 J	G639	169	160 JV	365 JV
Total Petroleum Hydrocarbons	mg/kg	802	765	95.4	3.07 A	33100 JT	G294-1	860	462 JT	2150 JV	3.07 A	33100 JT	G294-1	822	450 JV	2040 JV
Total Petroleum Hydrocarbons (silica gel treated)	mg/kg	200	191	95.5	7.1 JA	3300 JA	G639	250	201 JA	635 JV	7.1 JA	3300 JA	G639	240	199 JV	631 JV

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners whenever available and total Aroclors if not.

Reason codes for qualifiers:

A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

-- data not available.
BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
RM - river mile
TEQ - toxic equivalent concentration
TOC - total organic carbon

Table 5.1-2. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Subsurface Sediment, Study Area (RM 1.9-11.8).

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Grain Size																
Fines	percent	1287	1287	100	0.24	101 T	C380	52	58.9 T	90.3 V	0.24	101 T	C380	52	58.9 T	90.3 V
Conventionals																
Total organic carbon	percent	1574	1515	96.3	0.02 J	35.5	C302	1.67	1.65	3.68 V	0.02 J	35.5	C302	1.61	1.57 V	3.58 V
Metals																
Arsenic	mg/kg	1431	1366	95.5	0.5 J	51.4	C708	4.05	3.52 V	7.34 JV	0.5 J	51.4	C708	3.94	3.43 J	7.12 JV
Cadmium	mg/kg	1453	1348	92.8	0.011 J	43.7	C752	0.464	0.278 V	1.1 JV	0.008 UJ	43.7	C752	0.437	0.26	1.04 V
Chromium	mg/kg	1397	1391	99.6	6.41 J	464	HA-42	28.4	26.1	45.5 V	6.41 J	464	HA-42	28.3	26.1	45.5 V
Copper	mg/kg	1431	1430	99.9	9.42 J	3290	C384	53.6	35.3 JV	95.6 V	9.42 J	3290	C384	53.6	35.3 J	95.6 V
Lead	mg/kg	1530	1520	99.3	1.54	3330 J	C326	53	20.3 V	193 JV	0.4 UJ	3330 J	C326	52.7	20.2 V	191 JV
Mercury	mg/kg	1327	1246	93.9	0.004 J	16.8	C708	0.181	0.085 V	0.493 V	0.002 U	16.8	C708	0.171	0.08	0.468 V
Nickel	mg/kg	1411	1411	100	5.99 J	716	C356	25.1	23.3 J	32.8 JV	5.99 J	716	C356	25.1	23.3 J	32.8 JV
Zinc	mg/kg	1518	1518	100	24	9000	HA-42	152	104 V	366 V	24	9000	HA-42	152	104 V	366 V
Butyltins																
Tributyltin ion	µg/kg	309	182	58.9	0.32 J	90000	PSY30C	1630	26.5 V	4860 V	0.068 U	90000	PSY30C	960	2.1 J	1580 JV
PCB Aroclors																
Aroclors	µg/kg	1324	837	63.2	0.82 JT	26000 T	C092	268	69 NJT	713 V	0.73 UT	150000 UT	SD092	243	26 JV	444 JV
PCB Congeners																
Total PCB Congeners	pg/g	149	145	97.3	1.38 JT	36800000 T	C455	668000	100000 JT	1120000 JV	1.38 JT	36800000 T	C455	650000	98800 T	1120000 JV
Total PCBs[c]																
Total PCBs	µg/kg	1326	862	65	0.00138 JT	36800 T	C455	295	69 V	709 JV	0.00138 JT	150000 UT	SD092	265	27 JV	486 V
PCDD/F Homologs																
Total PCDD/F	pg/g	241	240	99.6	0.0578 JT	218000 T	C455	2560	280 V	4240 JV	0.0578 JT	218000 T	C455	2550	279 T	4150 JT
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g	245	227	92.7	0.000262 JT	7480 JT	SD092	44.9	1.27 JT	47.7 JV	0.000262 JT	7480 JT	SD092	41.6	0.934 JT	44.3 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g	149	143	96	0.0000696 JT	365 JT	C384	10	1.86 T	17.8 JV	0.0000696 JT	365 JT	C384	9.63	1.72 T	16.8 JV
Pesticides																
Aldrin	µg/kg	1035	131	12.7	0.119 J	1340 J	C356	24	0.89 NJ	78.4 JV	0.0269 UJ	3800 U	SD092	9.98	0.106 UJ	10 JV
Dieldrin	µg/kg	1071	74	6.91	0.038 NJ	100 J	C092	3.72	0.43 JV	13.6 JV	0.03 U	7500 U	SD092	7.3	0.164 UJ	5.25 UJV
gamma-Hexachlorocyclohexane	µg/kg	1071	98	9.15	0.075 J	172 NJ	C356	5.36	1.5 JV	11.3 JV	0.062 U	3800 U	SD092	5.7	0.215 U	6.68 JV
Total Chlordanes	µg/kg	1068	586	54.9	0.038 JT	2330 JT	C455	18.4	1.6 JV	53.1 JV	0.0359 UT	3800 UA	SD092	16	0.896 JV	45.3 UV
Total of 2,4' and 4,4'-DDD	µg/kg	1291	977	75.7	0.079 JT	690000 A	WB-11	2500	6.4 JT	446 JV	0.0415 UT	690000 A	WB-11	1890	3.45 UJA	275 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg	1290	1049	81.3	0.058 JT	3640000 A	WB-24	9060	13.3 NJT	1170 JV	0.049 UJT	3640000 A	WB-24	7370	9.03 JV	744 JV
Total of 2,4' and 4,4'-DDE	µg/kg	1291	884	68.5	0.041 JT	24000 A	WB-9	79.9	4.06 JV	77.9 JV	0.0389 UT	24000 A	WB-9	62.7	2.6 A	50.8 JV
Total of 2,4' and 4,4'-DDT	µg/kg	1291	854	66.2	0.07 JT	3500000 A	WB-24	8190	4.3 JV	681 JV	0.0427 UT	3500000 A	WB-24	5420	1.7 T	363 JV
Polycyclic Aromatic Hydrocarbons																
Total BaPEq	µg/kg	1545	1422	92	0.00017 JT	1520000 JT	T4-PI-01	9330	135 V	25300 JV	0.00017 JT	1520000 JT	T4-PI-01	8590	109 T	24600 V
Benzo(a)pyrene	µg/kg	1545	1361	88.1	0.16 J	990000	T4-PI-01	7170	110	20000	0.14 U	990000	T4-PI-01	6320	77	17800 V
High Molecular Weight PAH	µg/kg	1545	1450	93.9	0.15 JT	13400000 T	C302	81500	1090 V	199000 V	0.15 JT	13400000 T	C302	76500	837 T	180000 V
Low Molecular Weight PAH	µg/kg	1545	1426	92.3	0.22 JT	39900000 T	C302	155000	310 V	80400 JV	0.22 JT	39900000 T	C302	143000	242 T	70400 V
Naphthalene	µg/kg	1583	1116	70.5	0.27 J	20000000	C302	93400	56.5 V	4180 V	0.17 U	20000000	C302	65900	24	1900 V
Phenanthrene	µg/kg	1545	1376	89.1	0.24 J	8500000	C302	41300	167 JV	52300 V	0.24 J	8500000	C302	36800	120	40800 V
Total cPAHs	µg/kg	1545	1422	92	0.17 JT	4900000 JT	T4-PI-01	33400	545 JV	95800 V	0.17 JT	4900000 JT	T4-PI-01	30800	420 T	85600 V
Total PAHs	µg/kg	1545	1471	95.2	0.15 JT	53300000 T	C302	230000	1400 JT	283000 V	0.15 JT	53300000 T	C302	219000	1130 T	266000 V
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg	1431	553	38.6	2.4 J	18000	WR-VC-110	363	95	1140 V	2 U	40000 U	HA-43	221	34 U	696 V
Butylbenzyl phthalate	µg/kg	1429	245	17.1	2 J	11800	HA-42	90.2	11 J	178 V	1.7 U	11800	HA-42	46.1	5.5 U	103 JV

Table 5.1-2. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Subsurface Sediment, Study Area (RM 1.9-11.8).

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg	1113	136	12.2	2.2 J	3700	C199	44.1	8.25 JV	71 JV	2.1 U	9300 U	C301	43.6	5.6 J	107 V
Hexachlorobenzene	µg/kg	1140	214	18.8	0.066 J	14000	OSS004	77.3	0.842 JV	32 JV	0.0162 U	14000	OSS004	34.6	0.836 JV	33.5 UV
Phenols																
Pentachlorophenol	µg/kg	1153	360	31.2	0.32 J	5600	C301	35.2	3.55 JV	47 V	0.16 UT	18000 U	SD05	75.7	1.3 J	61.6 V
Petroleum																
Diesel Range Hydrocarbons	mg/kg	1083	870	80.3	1.5 J	190000 J	C301	1300	200 JV	2900 JV	0.5 U	190000 J	C301	1040	130 J	2000 JV
Diesel Range Hydrocarbons (silica gel treated)	mg/kg	230	188	81.7	1.8 J	88000 J	C662	849	170 JV	1400 JV	1.3 U	88000 J	C662	694	122 JV	1090 JV
Residual Range Hydrocarbons	mg/kg	963	805	83.6	3.1 J	110000 J	C301	1210	550 JT	3080 JV	3.1 J	110000 J	C301	1020	420 J	2490 JV
Residual Range Hydrocarbons (silica gel treated)	mg/kg	230	186	80.9	3.6 J	15000 J	C662	617	378 JV	1380 JV	3 U	15000 J	C662	500	275 JV	1100 JV
Total Petroleum Hydrocarbons	mg/kg	1083	931	86	1.8 JA	321000 JT	C301	2410	680 JA	5460 JV	1.8 JA	321000 JT	C301	2070	550 JT	4540 JV
Total Petroleum Hydrocarbons (silica gel treated)	mg/kg	230	195	84.8	2.6 JA	103000 JA	C662	1410	530 JA	2530 JV	2.6 JA	103000 JA	C662	1190	410 JV	2250 JV

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualifie

[c] Total PCBs are total PCB congeners whenever available and total Aroclors if not.

Reason codes for qualifiers:

A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
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U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

-- data not available.
BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
RM - river mile
TEQ - toxic equivalent concentration
TOC - total organic carbon

Table 5.1-3. Summary Statistics - PCBs in Surface and Subsurface Sediments.

Reach Type	Reach	East/West/Mid	Surface/ Subsurface	N	Minimum (µg/kg)	Maximum (µg/kg)	Mean (µg/kg)	Standard Deviation	95th Percentile
River Mile	Study Area	West	Surface	422	0.851 JT	35400 T	196	1750	500
River Mile	Study Area	West	Subsurface	424	0.0604 JT	150000 UT	641	7580	503
River Mile	RM 00<02	West	Surface	9	2.7 UT	14 JT	6.44	3.71	12.2
River Mile	RM 00<02	West	Subsurface	8	2.1 UT	110 JT	19.9	37.1	78.9
River Mile	RM 02<03	West	Surface	15	1.5 JT	40 JT	7.91	9.72	20.4
River Mile	RM 03<04	West	Surface	28	2.3 UT	40 UT	15.6	10.1	35.5
River Mile	RM 03<04	West	Subsurface	12	2.65 UT	118 JT	25.9	34.9	80.2
River Mile	RM 04<05	West	Surface	59	1.7 UT	274 UT	32.7	51.4	139
River Mile	RM 04<05	West	Subsurface	66	1.4 UT	288 UT	58.2	63.9	192
River Mile	RM 05<06	West	Surface	49	2.02 JT	96.5 T	18.7	19.1	54.1
River Mile	RM 05<06	West	Subsurface	53	1.5 UT	358 JT	56.5	83.5	208
River Mile	RM 06<07	West	Surface	78	1.44 A	2000 UT	85	247	276
River Mile	RM 06<07	West	Subsurface	97	1.4 UT	322 JT	66.7	84	251
River Mile	RM 07<08	West	Surface	75	0.851 JT	4000 UT	218	634	1280
River Mile	RM 07<08	West	Subsurface	91	0.906 T	150000 UT	2180	15900	1030
River Mile	RM 08<09	West	Surface	53	4.28 JT	35400 T	836	4850	702
River Mile	RM 08<09	West	Subsurface	73	0.0604 JT	36800 T	740	4340	901
River Mile	RM 09<10	West	Surface	32	7.01 A	2510 T	328	564	1540
River Mile	RM 09<10	West	Subsurface	26	1.4 UT	953 T	220	266	734
River Mile	RM 10<11	West	Surface	23	8.65 T	338 T	49.9	70.6	141
River Mile	RM 11<11.8	West	Surface	9	12.8 JT	33 JT	20.3	7.52	33
River Mile	RM 11<11.8	West	Subsurface	6	10 JT	148 JT	70.6	52.3	139
River Mile	Study Area	Mid-channel	Surface	305	1.3 UT	5900 JT	48.5	342	108
River Mile	Study Area	Mid-channel	Subsurface	344	0.00232 JT	2400 T	73.4	193	244
River Mile	RM 00<02	Mid-channel	Surface	9	4 JT	11 JT	7.61	2.6	10.6
River Mile	RM 00<02	Mid-channel	Subsurface	10	2.3 UT	46 JT	14.4	13.4	39.3
River Mile	Multnomah Channel	Mid-channel	Surface	17	0.15 A	54 JT	9.65	13.3	31
River Mile	Multnomah Channel	Mid-channel	Subsurface	14	1 UT	213 T	17.3	56.4	83.7
River Mile	RM 02<03	Mid-channel	Surface	8	4 T	51 T	14.4	15.3	39.3
River Mile	RM 02<03	Mid-channel	Subsurface	8	9.22 JT	132 T	50.3	45.2	125
River Mile	RM 03<04	Mid-channel	Surface	14	2.3 UT	200 JT	24.3	51.1	89.5
River Mile	RM 03<04	Mid-channel	Subsurface	10	3.6 JT	120 JT	66.5	34.5	109
River Mile	RM 04<05	Mid-channel	Surface	30	2.4 UT	110 T	14.6	20.3	39
River Mile	RM 04<05	Mid-channel	Subsurface	32	1.3 UT	153 T	48.1	38.8	124
River Mile	RM 05<06	Mid-channel	Surface	39	1.3 UT	61 JT	12.4	12.1	28.4
River Mile	RM 05<06	Mid-channel	Subsurface	36	0.00232 JT	112 JT	20.7	32	99.5
River Mile	RM 06<07	Mid-channel	Surface	39	1.3 UT	303 JT	41.3	71	195
River Mile	RM 06<07	Mid-channel	Subsurface	48	1 UT	720 UT	94.4	158	456
River Mile	RM 07<08	Mid-channel	Surface	37	2.18 JT	140 T	31.5	33	98.6
River Mile	RM 07<08	Mid-channel	Subsurface	29	1.6 UT	605 T	66.8	112	153
River Mile	RM 08<09	Mid-channel	Surface	50	4.4 UJT	50.4 T	18	10.7	40
River Mile	RM 08<09	Mid-channel	Subsurface	36	5.1 JT	231 T	43.8	43.3	105
River Mile	RM 09<10	Mid-channel	Surface	34	3.42 JT	156 T	26.3	36	118
River Mile	RM 09<10	Mid-channel	Subsurface	40	4 UT	580 T	42.8	91.2	85.4
River Mile	RM 10<11	Mid-channel	Surface	43	3.07 UT	167 JT	30.2	32.6	90.2
River Mile	RM 10<11	Mid-channel	Subsurface	68	0.73 UT	2400 T	132	334	521
River Mile	RM 11<11.8	Mid-channel	Surface	9	9.6 JT	5900 JT	839	1920	3840
River Mile	RM 11<11.8	Mid-channel	Subsurface	37	0.0051 T	1700 JT	86.1	280	249
Unspecified	Study Area	East	Surface	576	0.0324 A	12500 JT	223	934	848
River Mile	Study Area	East	Subsurface	647	0.00138 JT	26000 T	257	1410	669
River Mile	RM 00<02	East	Surface	15	1.03 JT	410 T	40	104	159
River Mile	RM 00<02	East	Subsurface	23	2 UT	400 JT	69.5	91.5	239
River Mile	RM 02<03	East	Surface	64	7.3 JT	9780 T	675	1710	1980
River Mile	RM 02<03	East	Subsurface	59	0.291 JT	7900 JT	496	1220	1730
River Mile	RM 03<04	East	Surface	65	0.197 A	4340 T	324	849	2070
River Mile	RM 03<04	East	Subsurface	85	1.3 UT	26000 T	639	3240	710
River Mile	RM 04<05	East	Surface	88	0.31 UA	1530 T	76.3	199	269
River Mile	RM 04<05	East	Subsurface	250	1.3 UJT	1000 T	51.8	95.3	220
River Mile	RM 05<06	East	Surface	65	0.32 UA	250 T	52.6	68.5	209
River Mile	RM 05<06	East	Subsurface	32	1.4 UT	2830 T	208	508	568
River Mile	RM 06<07	East	Surface	55	0.0324 A	5870 JT	176	811	196
River Mile	RM 06<07	East	Subsurface	50	0.00252 JT	737 JT	85	141	343
River Mile	RM 07<08	East	Surface	37	0.0994 A	200 T	29.6	34	56.1
River Mile	RM 07<08	East	Subsurface	23	0.00138 JT	254 JT	65.1	84	229
River Mile	RM 08<09	East	Surface	107	0.302 A	12500 JT	282	1230	704
River Mile	RM 08<09	East	Subsurface	102	0.0418 JT	10800 JT	445	1460	1620
River Mile	RM 09<10	East	Surface	62	0.31 UA	256 T	34.6	49.8	140

Table 5.1-3. Summary Statistics - PCBs in Surface and Subsurface Sediments.

Reach Type	Reach	East/West/Mid	Surface/ Subsurface	N	Minimum (µg/kg)	Maximum (µg/kg)	Mean (µg/kg)	Standard Deviation	95th Percentile
River Mile	RM 09<10	East	Subsurface	25	1.9 UT	403 T	98.4	104	308
River Mile	RM 10<11	East	Surface	22	5.49 T	550 T	52.2	117	183
River Mile	RM 10<11	East	Subsurface	4	1.3 UT	83 JT	27.8	37.3	72.8
River Mile	RM 11<11.8	East	Surface	6	10.7 JT	6640 JT	1630	2680	5670
River Mile	RM 11<11.8	East	Subsurface	9	13.4 JT	7100 T	954	2320	4540
Hydrodynamic	RM 05<06.9	West	Surface	114	1.44 A	760 UT	39.7	84.4	165
Hydrodynamic	RM 05<06.9	West	Subsurface	144	1.4 UT	358 JT	65.6	84.5	249
Hydrodynamic	RM 06.9<10	West	Surface	173	0.851 JT	35400 T	429	2730	1380
Hydrodynamic	RM 06.9<10	West	Subsurface	196	0.0604 JT	150000 UT	1320	11100	904
Hydrodynamic	RM 10<11.8	West	Surface	32	8.65 T	338 T	41.5	61.1	118
Hydrodynamic	RM 10<11.8	West	Subsurface	6	10 JT	148 JT	70.6	52.3	139
Hydrodynamic	RM 01.9<03	Mid-channel	Surface	10	4 T	51 T	12.8	14	36
Hydrodynamic	RM 01.9<03	Mid-channel	Subsurface	8	9.22 JT	132 T	50.3	45.2	125
Hydrodynamic	RM 03<05	Mid-channel	Surface	44	2.3 UT	200 JT	17.7	33	49.6
Hydrodynamic	RM 03<05	Mid-channel	Surface	9	9.6 JT	5900 JT	839	1920	3840
Hydrodynamic	RM 03<05	Mid-channel	Subsurface	42	1.3 UT	153 T	52.5	38.2	120
Hydrodynamic	RM 05<06.9	Mid-channel	Surface	75	1.3 UT	303 JT	27.7	53.5	150
Hydrodynamic	RM 05<06.9	Mid-channel	Subsurface	83	0.00232 JT	720 UT	62.4	127	261
Hydrodynamic	RM 06.9<10	Mid-channel	Surface	124	1.7 UT	156 T	24	27.5	95
Hydrodynamic	RM 06.9<10	Mid-channel	Subsurface	106	1.6 UT	605 T	50.3	84.7	130
Hydrodynamic	RM 10<11.8	Mid-channel	Surface	52	3.07 UT	5900 JT	170	821	368
Hydrodynamic	RM 10<11.8	Mid-channel	Subsurface	105	0.0051 T	2400 T	116	316	475
Hydrodynamic	RM 01.9<03	East	Surface	69	6.3 JT	9780 T	628	1660	1920
Hydrodynamic	RM 01.9<03	East	Subsurface	67	0.291 JT	7900 JT	448	1150	1540
Hydrodynamic	RM 03<05	East	Surface	153	0.197 A	4340 T	181	584	747
Hydrodynamic	RM 03<05	East	Subsurface	335	1.3 UT	26000 T	201	1650	290
Hydrodynamic	RM 05<06.9	East	Surface	118	0.0324 A	5870 JT	111	557	212
Hydrodynamic	RM 05<06.9	East	Subsurface	82	0.00252 JT	2830 T	133	338	406
Hydrodynamic	RM 06.9<10	East	Surface	123	0.0994 A	725 T	50.3	99	214
Hydrodynamic	RM 06.9<10	East	Subsurface	81	0.00138 JT	10800 JT	434	1620	1640
Hydrodynamic	RM 10<11.8	East	Surface	28	5.49 T	6640 JT	390	1330	1980
Hydrodynamic	RM 10<11.8	East	Subsurface	13	1.3 UT	7100 T	669	1940	3270
Hydrodynamic	Swan Island Lagoon	East	Surface	85	0.31 UA	12500 JT	322	1380	835
Hydrodynamic	Swan Island Lagoon	East	Subsurface	69	1.7 UT	2290 T	206	351	733

Notes:

PCB - polychlorinated biphenyl
RM - river mile

Reason codes for qualifiers:

A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

Table 5.1-4. Summary Statistics - PCDD/Fs in Surface and Subsurface Sediments.

Reach Type	Reach	East/West/Mid	Surface/ Subsurface	N	Minimum (pg/g)	Maximum (pg/g)	Mean (pg/g)	Standard Deviation	95th Percentile
River Mile	Study Area	West	Surface	96	2.48 T	264000 T	3980	26900	5620
River Mile	Study Area	West	Subsurface	105	0.141 T	218000 T	4000	22100	7910
River Mile	RM 00<02	West	Surface	8	30.73 JT	1780 JT	305	603	1260
River Mile	RM 00<02	West	Subsurface	8	0.093 T	328.9 T	69.5	117	264
River Mile	RM 02<03	West	Surface	7	9.56 T	310 JT	68.9	107	232
River Mile	RM 03<04	West	Surface	7	73.3 JT	467 T	172	133	377
River Mile	RM 03<04	West	Subsurface	10	0.446 T	2230 JT	416	708	1590
River Mile	RM 04<05	West	Surface	9	2.48 T	3080 T	726	923	2170
River Mile	RM 04<05	West	Subsurface	12	0.441 T	3240 JT	624	1050	2750
River Mile	RM 05<06	West	Surface	6	192 JT	2800 T	830	996	2320
River Mile	RM 05<06	West	Subsurface	8	0.141 T	1060 T	315	477	1060
River Mile	RM 06<07	West	Surface	26	55.4 T	12700 T	1750	2950	8250
River Mile	RM 06<07	West	Subsurface	37	0.29 T	65700 T	2650	10700	4500
River Mile	RM 07<08	West	Surface	19	28.8 JT	264000 T	15200	60300	31900
River Mile	RM 07<08	West	Subsurface	24	0.443 T	14900 JT	2270	3460	7580
River Mile	RM 08<09	West	Surface	11	9.9 JT	8300 JT	1500	2430	5360
River Mile	RM 08<09	West	Subsurface	13	0.227 T	218000 T	19400	59800	92400
River Mile	RM 09<10	West	Surface	8	378 T	5440 JT	1650	1860	4760
River Mile	RM 09<10	West	Subsurface	1	269 T	269 T	269		
River Mile	RM 10<11	West	Surface	3	405 JT	2940 JT	1690	1270	2820
River Mile	Study Area	Mid-channel	Surface	36	14.98 JT	2260 T	389	541	1790
River Mile	Study Area	Mid-channel	Subsurface	51	0.0578 JT	4083 JT	361	738	1340
River Mile	RM 00<02	Mid-channel	Surface	4	14.98 JT	99.02 JT	49	40.8	94
River Mile	RM 00<02	Mid-channel	Subsurface	3	19.76 JT	85.5 JT	58.5	34.4	84
River Mile	Multnomah Channel	Mid-channel	Surface	2	35.4 JT	175 T	105	98.7	168
River Mile	RM 03<04	Mid-channel	Surface	1	120 JT	120 JT	120		
River Mile	RM 04<05	Mid-channel	Surface	8	20.7 JT	656 JT	224	212	545
River Mile	RM 04<05	Mid-channel	Subsurface	2	99.8 T	474 T	287	265	455
River Mile	RM 05<06	Mid-channel	Surface	2	284 JT	593 T	439	218	578
River Mile	RM 05<06	Mid-channel	Subsurface	8	0.0578 JT	186 T	32.5	63.3	133
River Mile	RM 06<07	Mid-channel	Surface	11	17.2 JT	2260 T	779	834	2180
River Mile	RM 06<07	Mid-channel	Subsurface	9	4.62 T	1750 T	375	540	1220
River Mile	RM 07<08	Mid-channel	Surface	6	35.6 JT	507 JT	239	174	477
River Mile	RM 08<09	Mid-channel	Surface	3	66.4 JT	232 JT	145	83.1	222
River Mile	RM 09<10	Mid-channel	Surface	2	27.82 JT	543 JT	285	364	517
River Mile	RM 09<10	Mid-channel	Subsurface	15	12.64 JT	3110 JT	445	799	1590
River Mile	RM 10<11	Mid-channel	Surface	2	61.16 JT	126.5 JT	93.8	46.2	123
River Mile	RM 10<11	Mid-channel	Subsurface	17	32.9 JT	4083 JT	443	960	1390
River Mile	Study Area	East	Surface	97	32.2 JT	56200 T	3390	8650	15500
River Mile	Study Area	East	Subsurface	89	0.403 T	87600 JT	1990	9660	3380
River Mile	RM 00<02	East	Surface	14	1.563 JT	957.6 JT	188	262	695
River Mile	RM 00<02	East	Subsurface	14	6.678 JT	3689 JT	499	975	1940
River Mile	RM 02<03	East	Surface	9	32.2 JT	1700 JT	358	524	1190
River Mile	RM 02<03	East	Subsurface	9	0.623 UT	655 T	209	198	517
River Mile	RM 03<04	East	Surface	19	88.8 T	6420 JT	1110	1540	3460
River Mile	RM 03<04	East	Subsurface	19	0.403 T	3350 JT	632	979	2590
River Mile	RM 04<05	East	Surface	10	34.8 JT	4400 JT	1640	1340	3690
River Mile	RM 04<05	East	Subsurface	8	243 T	3080 JT	1340	964	2690
River Mile	RM 05<06	East	Surface	5	351 T	3950 JT	1300	1500	3370
River Mile	RM 05<06	East	Subsurface	11	1.71 T	1940 JT	561	731	1760
River Mile	RM 06<07	East	Surface	20	152 JT	40200 T	5720	9720	18200
River Mile	RM 06<07	East	Subsurface	11	0.691 T	3400 JT	1030	1460	3320
River Mile	RM 07<08	East	Surface	8	112 T	56200 T	15900	20500	49900
River Mile	RM 07<08	East	Subsurface	6	131 T	87600 JT	19500	35100	72600
River Mile	RM 08<09	East	Surface	12	115 T	1480 T	544	436	1250
River Mile	RM 08<09	East	Subsurface	9	88.6 T	1830 JT	605	630	1690
River Mile	RM 09<10	East	Surface	7	51.1 JT	27700 JT	4500	10300	20000
River Mile	RM 09<10	East	Subsurface	8	13 JT	4150 JT	997	1370	3230
River Mile	RM 10<11	East	Surface	1	173 T	173 T	173		
River Mile	RM 11<11.8	East	Surface	2	268 JT	1410 JT	839	808	1350
Hydrodynamic	RM 01.9<03	West	Surface	7	9.56 T	310 JT	68.9	107	232
Hydrodynamic	RM 03<05	West	Surface	16	2.48 T	3080 T	483	737	1380
Hydrodynamic	RM 03<05	West	Subsurface	22	0.441 T	3240 JT	529	897	2340
Hydrodynamic	RM 05<06.9	West	Surface	25	55.4 T	9670 JT	1320	2010	3770
Hydrodynamic	RM 05<06.9	West	Subsurface	36	0.141 T	65700 T	2460	10900	2890

Table 5.1-4. Summary Statistics - PCDD/Fs in Surface and Subsurface Sediments.

Reach Type	Reach	East/West/Mid	Surface/ Subsurface	N	Minimum (pg/g)	Maximum (pg/g)	Mean (pg/g)	Standard Deviation	95th Percentile
Hydrodynamic	RM 06.9<10	West	Surface	45	9.9 JT	264000 T	7460	39200	7870
Hydrodynamic	RM 06.9<10	West	Subsurface	47	0.227 T	218000 T	6790	31600	8550
Hydrodynamic	RM 10<11.8	West	Surface	3	405 JT	2940 JT	1690	1270	2820
Hydrodynamic	RM 01.9<03	Mid-channel	Surface	1	14.98 JT	14.98 JT	14.98		
Hydrodynamic	RM 03<05	Mid-channel	Surface	9	20.7 JT	656 JT	212	201	530
Hydrodynamic	RM 03<05	Mid-channel	Subsurface	2	99.8 T	474 T	287	265	455
Hydrodynamic	RM 05<06.9	Mid-channel	Surface	12	17.2 JT	2260 T	749	805	2170
Hydrodynamic	RM 05<06.9	Mid-channel	Subsurface	17	0.0578 JT	1750 T	214	422	692
Hydrodynamic	RM 06.9<10	Mid-channel	Surface	12	27.82 JT	543 JT	241	185	523
Hydrodynamic	RM 06.9<10	Mid-channel	Subsurface	15	12.64 JT	3110 JT	445	799	1590
Hydrodynamic	RM 10<11.8	Mid-channel	Surface	2	61.16 JT	126.5 JT	93.8	46.2	123
Hydrodynamic	RM 10<11.8	Mid-channel	Subsurface	17	32.9 JT	4083 JT	443	960	1390
Hydrodynamic	Swan Island Lagoon	Mid-channel	Surface	10	265 T	27700 JT	3550	8500	16200
Hydrodynamic	Swan Island Lagoon	Mid-channel	Subsurface	11	13 JT	4150 JT	1040	1200	2990
Hydrodynamic	RM 01.9<03	East	Surface	13	32.2 JT	1700 JT	277	447	939
Hydrodynamic	RM 01.9<03	East	Subsurface	17	0.623 UT	3689 JT	420	880	1540
Hydrodynamic	RM 03<05	East	Surface	29	34.8 JT	6420 JT	1300	1470	3890
Hydrodynamic	RM 03<05	East	Subsurface	27	0.403 T	3350 JT	841	1010	2910
Hydrodynamic	RM 05<06.9	East	Surface	20	152 JT	15000 JT	2910	4470	11300
Hydrodynamic	RM 05<06.9	East	Subsurface	22	0.691 T	3400 JT	794	1150	3240
Hydrodynamic	RM 06.9<10	East	Surface	22	51.1 JT	56200 T	8740	15700	40100
Hydrodynamic	RM 06.9<10	East	Subsurface	12	47.2 JT	87600 JT	9900	25700	54600
Hydrodynamic	RM 10<11.8	East	Surface	3	173 T	1410 JT	617	688	1300

Notes:

PCDD/Fs - dioxins/furans
RM - river mile

Reason codes for qualifiers:

A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

Table 5.1-5. Summary Statistics - DDx in Surface and Subsurface Sediments.

Reach Type	Reach	East/West/Mid	Surface/ Subsurface	N	Minimum (µg/kg)	Maximum (µg/kg)	Mean (µg/kg)	Standard Deviation	95th Percentile
River Mile	Study Area	West	Surface	451	0.0651 UT	84909 A	658	4620	1480
River Mile	Study Area	West	Subsurface	454	0.0498 UJT	3643000 A	20900	224000	6020
River Mile	RM 00<02	West	Surface	9	0.66 JT	8.8 JT	3.55	2.63	7.6
River Mile	RM 00<02	West	Subsurface	8	0.28 UT	18 JT	6.45	8.48	17.3
River Mile	RM 02<03	West	Surface	15	0.478 JT	29.4 JT	7.19	7.76	21.3
River Mile	RM 03<04	West	Surface	28	0.39 UT	247 JT	24.7	49.3	88.1
River Mile	RM 03<04	West	Subsurface	13	0.0692 UJT	131 JT	30.4	46.7	117
River Mile	RM 04<05	West	Surface	58	0.0765 UJT	189 JT	21.6	34.5	74.7
River Mile	RM 04<05	West	Subsurface	66	0.0514 UJT	793 JT	56.2	112	175
River Mile	RM 05<06	West	Surface	44	0.0651 UT	343 JT	34.2	59.7	142
River Mile	RM 05<06	West	Subsurface	50	0.0559 UJT	780 JT	70.6	135	297
River Mile	RM 06<07	West	Surface	83	1.5 T	2310 JT	242	364	753
River Mile	RM 06<07	West	Subsurface	101	0.0498 UJT	6650 JT	318	793	1350
River Mile	RM 07<08	West	Surface	110	0.75 JT	84909 A	2420	9160	12200
River Mile	RM 07<08	West	Subsurface	131	0.0659 UJT	3643000 A	71900	414000	61400
River Mile	RM 08<09	West	Surface	49	0.954 JT	3930 JT	120	558	192
River Mile	RM 08<09	West	Subsurface	63	0.0579 UJT	5840 JT	136	737	339
River Mile	RM 09<10	West	Surface	31	0.695 JT	75.5 JT	13.7	18.6	59.6
River Mile	RM 09<10	West	Subsurface	24	0.22 UT	78 A	14.5	17.5	40.5
River Mile	RM 10<11	West	Surface	23	1.82 JT	20.7 JT	7.11	4.25	13.7
River Mile	RM 11<11.8	West	Surface	9	2 JT	7.9 JT	3.47	1.86	6.66
River Mile	RM 11<11.8	West	Subsurface	6	5.1 JT	33 JT	18.1	11.7	32.5
River Mile	Study Area	Mid-channel	Surface	276	0.052 JT	274 JT	11.2	26.2	34.4
River Mile	Study Area	Mid-channel	Subsurface	335	0.0506 UJT	3200 JT	49	237	158
River Mile	RM 00<02	Mid-channel	Surface	9	0.2 A	15 JT	3.93	4.38	10.9
River Mile	RM 00<02	Mid-channel	Subsurface	10	0.51 JT	11 T	3.27	3.48	9.83
River Mile	Multnomah Channel	Mid-channel	Surface	17	0.17 JT	32 JT	5.5	7.32	14
River Mile	Multnomah Channel	Mid-channel	Subsurface	14	0.066 JT	90 JT	8.93	24.9	53
River Mile	RM 02<03	Mid-channel	Surface	8	2.3 A	9.45 JT	5.12	2.62	8.98
River Mile	RM 02<03	Mid-channel	Subsurface	8	3.4 UA	47 JT	12.8	14.6	36.9
River Mile	RM 03<04	Mid-channel	Surface	14	1.4 JT	77.2 JT	11.8	19.8	43.9
River Mile	RM 03<04	Mid-channel	Subsurface	10	3 T	35 JT	18.1	10	34
River Mile	RM 04<05	Mid-channel	Surface	30	1.3 JT	19 JT	7.23	4.51	15.9
River Mile	RM 04<05	Mid-channel	Subsurface	32	0.27 JT	1230 JT	69.4	227	243
River Mile	RM 05<06	Mid-channel	Surface	39	0.052 JT	148 JT	13.2	23.7	26
River Mile	RM 05<06	Mid-channel	Subsurface	36	0.058 JT	261 JT	14.1	43.1	24.3
River Mile	RM 06<07	Mid-channel	Surface	38	0.054 UT	274 JT	29	55.3	101
River Mile	RM 06<07	Mid-channel	Subsurface	49	0.0649 UJT	3200 JT	203	565	1110
River Mile	RM 07<08	Mid-channel	Surface	33	1.8 T	86 JA	11.5	15	24.3
River Mile	RM 07<08	Mid-channel	Subsurface	30	0.0506 UJT	395 JA	58.2	83.5	196
River Mile	RM 08<09	Mid-channel	Surface	35	0.66 JT	10.6 JT	3.8	2.01	6.97
River Mile	RM 08<09	Mid-channel	Subsurface	29	2.3 A	8.9 JT	4.8	1.77	7.66
River Mile	RM 09<10	Mid-channel	Surface	28	1.2 JT	9.9 JT	3.13	1.66	5.4
River Mile	RM 09<10	Mid-channel	Subsurface	36	2.2 JT	110 JT	8.4	17.8	16.4
River Mile	RM 10<11	Mid-channel	Surface	40	1.3 T	12 JT	4.04	2.22	7.68
River Mile	RM 10<11	Mid-channel	Subsurface	68	0.076 JT	293 JT	14.4	36.2	40.2
River Mile	RM 11<11.8	Mid-channel	Surface	9	0.26 T	140 T	30.9	49	118
River Mile	RM 11<11.8	Mid-channel	Subsurface	37	0.18 UT	100 JT	7.52	17	24.3
River Mile	Study Area	East	Surface	515	0.051 JT	430 JT	11.8	31.7	35.4
River Mile	Study Area	East	Subsurface	593	0.049 UJT	2100 JT	33.3	156	108
River Mile	RM 00<02	East	Surface	15	0.44 JT	30 JT	5.65	7.49	17.4
River Mile	RM 00<02	East	Subsurface	23	0.17 JT	80 JT	18.4	20.7	61.7
River Mile	RM 02<03	East	Surface	49	0.311 JT	39.2 JT	9.01	7.55	24.6
River Mile	RM 02<03	East	Subsurface	54	0.18 UT	110 JT	14.1	19.2	52.7
River Mile	RM 03<04	East	Surface	66	0.051 JT	238 JT	13	31.3	44.6
River Mile	RM 03<04	East	Subsurface	83	0.0561 UJT	1540 JT	63	207	254
River Mile	RM 04<05	East	Surface	92	0.39 JT	74.5 T	10.7	12.8	35.5
River Mile	RM 04<05	East	Subsurface	250	0.07 JT	430 JT	10.4	31.4	36.5
River Mile	RM 05<06	East	Surface	65	0.39 UT	234 JT	14.4	30.8	38.4
River Mile	RM 05<06	East	Subsurface	32	0.0643 UJT	332 JT	48.7	80.3	196
River Mile	RM 06<07	East	Surface	53	0.21 JT	369.7 JA	16.6	51	35.7
River Mile	RM 06<07	East	Subsurface	51	0.049 UJT	1920 JT	78.3	275	232
River Mile	RM 07<08	East	Surface	31	0.474 JT	39.3 JT	5.68	6.87	11.5

Table 5.1-5. Summary Statistics - DDx in Surface and Subsurface Sediments.

Reach Type	Reach	East/West/Mid	Surface/ Subsurface	N	Minimum (µg/kg)	Maximum (µg/kg)	Mean (µg/kg)	Standard Deviation	95th Percentile
River Mile	RM 07<08	East	Subsurface	23	0.0826 UJT	502 JT	36.1	105	104
River Mile	RM 08<09	East	Surface	71	0.0692 UJT	153 A	12.7	26	46.8
River Mile	RM 08<09	East	Subsurface	60	0.0535 UJT	2100 JT	72.5	316	97.5
River Mile	RM 09<10	East	Surface	59	0.149 JT	25.9 UJT	3.84	4.23	9.38
River Mile	RM 09<10	East	Subsurface	22	0.0602 UJT	27.1 JT	6.57	6.43	13.9
River Mile	RM 10<11	East	Surface	19	0.492 UJT	16.8 JT	4.13	3.5	7.3
River Mile	RM 10<11	East	Subsurface	2	0.18 UT	15 JT	7.59	10.5	14.3
River Mile	RM 11<11.8	East	Surface	5	5.3 JT	430 JT	113	179	358
River Mile	RM 11<11.8	East	Subsurface	8	0.73 UA	140 JT	21.2	48.4	98
Hydrodynamic	RM 01.9<03	West	Surface	16	0.478 JT	29.4 JT	7	7.54	20.7
Hydrodynamic	RM 03<05	West	Surface	86	0.0765 UJT	247 JT	22.6	39.7	95.1
Hydrodynamic	RM 03<05	West	Subsurface	79	0.0514 UJT	793 JT	52	104	173
Hydrodynamic	RM 05<06.9	West	Surface	111	0.0651 UT	2310 JT	136	312	597
Hydrodynamic	RM 05<06.9	West	Subsurface	144	0.0548 UT	6650 JT	216	645	823
Hydrodynamic	RM 06.9<10	West	Surface	206	0.695 JT	84909 A	1360	6780	5200
Hydrodynamic	RM 06.9<10	West	Subsurface	225	0.0498 UJT	3643000 A	41900	318000	26200
Hydrodynamic	RM 10<11.8	West	Surface	32	1.82 JT	20.7 JT	6.09	4.06	13
Hydrodynamic	RM 10<11.8	West	Subsurface	6	5.1 JT	33 JT	18.1	11.7	32.5
Hydrodynamic	RM 01.9<03	Mid-channel	Surface	10	1.9 JT	9.45 JT	4.71	2.52	8.84
Hydrodynamic	RM 01.9<03	Mid-channel	Surface	9	0.26 T	140 T	30.9	49	118
Hydrodynamic	RM 01.9<03	Mid-channel	Subsurface	8	3.4 UA	47 JT	12.8	14.6	36.9
Hydrodynamic	RM 03<05	Mid-channel	Surface	44	1.3 JT	77.2 JT	8.68	11.7	18.6
Hydrodynamic	RM 03<05	Mid-channel	Subsurface	42	0.27 JT	1230 JT	57.2	199	49.4
Hydrodynamic	RM 05<06.9	Mid-channel	Surface	74	0.052 JT	274 JT	21.5	43.5	80.2
Hydrodynamic	RM 05<06.9	Mid-channel	Subsurface	84	0.058 JT	3200 JT	124	441	355
Hydrodynamic	RM 06.9<10	Mid-channel	Surface	99	0.49 JT	86 JA	6.3	9.64	22
Hydrodynamic	RM 06.9<10	Mid-channel	Subsurface	96	0.0506 UJT	395 JA	23.5	53.3	102
Hydrodynamic	RM 10<11.8	Mid-channel	Surface	49	0.26 T	140 T	8.97	22.7	19.8
Hydrodynamic	RM 10<11.8	Mid-channel	Subsurface	105	0.076 JT	293 JT	12	30.9	37.6
Hydrodynamic	Swan Island Lagoon	Mid-channel	Surface	65	0.0692 UJT	117 T	10.2	19.6	29.2
Hydrodynamic	Swan Island Lagoon	Mid-channel	Subsurface	44	0.0535 UJT	305 JT	16.6	47.3	56.2
Hydrodynamic	RM 01.9<03	East	Surface	54	0.311 JT	39.2 JT	8.57	7.37	23.8
Hydrodynamic	RM 01.9<03	East	Subsurface	62	0.17 JT	110 JT	14.4	18.6	50.9
Hydrodynamic	RM 03<05	East	Surface	158	0.051 JT	238 JT	11.6	22.4	36.6
Hydrodynamic	RM 03<05	East	Subsurface	333	0.0561 UJT	1540 JT	23.5	109	59.5
Hydrodynamic	RM 05<06.9	East	Surface	117	0.21 JT	369.7 JA	15.5	41.1	38.6
Hydrodynamic	RM 05<06.9	East	Subsurface	83	0.049 UJT	1920 JT	66.9	221	238
Hydrodynamic	RM 06.9<10	East	Surface	97	0.39 UT	153 A	6.69	16.9	12.9
Hydrodynamic	RM 06.9<10	East	Subsurface	61	0.0826 UJT	2100 JT	75.3	317	110
Hydrodynamic	RM 10<11.8	East	Surface	24	0.492 UJT	430 JT	26.9	87.5	66.2
Hydrodynamic	RM 10<11.8	East	Subsurface	10	0.18 UT	140 JT	18.5	43.2	86

Notes:

DDx - total of 2,4'- and 4,4'- DDD, -DDE, -DDT
RM - river mile

Reason codes for qualifiers:

A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

Table 5.1-6. Summary Statistics - PAHs in Surface and Subsurface Sediments.

Reach Type	Reach	East/West/Mid	Surface/ Subsurface	N	Minimum (µg/kg)	Maximum (µg/kg)	Mean (µg/kg)	Standard Deviation	95th Percentile
River Mile	Study Area	West	Surface	623	3.3 JT	63,400,000 JA	164,000	2,570,000	186,000
River Mile	Study Area	West	Subsurface	555	0.46 JT	53,300,000 T	644,000	3,760,000	1,560,000
River Mile	RM 00<02	West	Surface	9	67 JT	2,100 T	567	621	1,600
River Mile	RM 00<02	West	Subsurface	8	0.49 JT	870 T	256	324	741
River Mile	RM 02<03	West	Surface	15	84.5 JT	7,540 T	1,890	2,550	7,050
River Mile	RM 03<04	West	Surface	31	44.6 T	50,000 T	4,740	9,080	12,700
River Mile	RM 03<04	West	Subsurface	12	4.14 JT	96,300 T	19,000	32,600	85,100
River Mile	RM 04<05	West	Surface	114	9.75 A	114,000 T	7,870	16,100	41,100
River Mile	RM 04<05	West	Subsurface	94	2.21 JT	254,000 T	21,000	45,600	89,100
River Mile	RM 05<06	West	Surface	76	76.8 JT	345,000 T	18,400	51,000	101,000
River Mile	RM 05<06	West	Subsurface	59	0.47 JT	585,000 JT	45,400	90,100	163,000
River Mile	RM 06<07	West	Surface	107	136 JT	63,400,000 JA	924,000	6,170,000	1,790,000
River Mile	RM 06<07	West	Subsurface	182	0.46 JT	53,300,000 T	1,930,000	6,390,000	10,600,000
River Mile	RM 07<08	West	Surface	138	3.3 JT	149,000 JT	3,270	14,200	9,150
River Mile	RM 07<08	West	Subsurface	99	0.53 JT	135,000 T	3,890	14,600	9,030
River Mile	RM 08<09	West	Surface	66	71.1 T	26,390 T	2,280	4,280	9,900
River Mile	RM 08<09	West	Subsurface	76	1.05 JT	17,200 T	1,500	2,640	3,850
River Mile	RM 09<10	West	Surface	36	49.6 JT	25,100 JT	2,510	4,840	8,380
River Mile	RM 09<10	West	Subsurface	27	1.5 UT	358,000 T	17,300	68,400	24,200
River Mile	RM 10<11	West	Surface	30	20 UT	6,050 T	1,060	1,520	4,680
River Mile	RM 11<11.8	West	Surface	9	53 T	6,250 T	940	2,000	4,060
River Mile	RM 11<11.8	West	Subsurface	6	380 T	4,100 T	1,240	1,420	3,300
River Mile	RM 00<02	Mid-channel	Surface	9	76.9 T	880 T	400	314	845
River Mile	RM 00<02	Mid-channel	Subsurface	10	20.7 T	699 T	205	269	668
River Mile	Multnomah Channel	Mid-channel	Surface	17	415 JT	6,800 T	2,280	1,810	5,760
River Mile	Multnomah Channel	Mid-channel	Subsurface	14	0.75 UT	8,300 T	1,150	2,390	5,830
River Mile	RM 02<03	Mid-channel	Surface	8	296 JT	2,896 T	1,090	864	2,500
River Mile	RM 02<03	Mid-channel	Subsurface	8	676 T	7,130 T	3,350	2,490	6,770
River Mile	RM 03<04	Mid-channel	Surface	14	340 JT	10,000 T	2,600	2,670	6,950
River Mile	RM 03<04	Mid-channel	Subsurface	10	1200 T	5,310 T	3,040	1,460	5,040
River Mile	RM 04<05	Mid-channel	Surface	37	210 JT	9,000 T	2,100	2,160	6,980
River Mile	RM 04<05	Mid-channel	Subsurface	38	5.5 JT	51,000 T	5,050	8,390	14,000
River Mile	RM 05<06	Mid-channel	Surface	41	88 JT	7,260,000 T	275,000	1,140,000	801,000
River Mile	RM 05<06	Mid-channel	Subsurface	37	0.39 JT	117,000 T	7,770	20,300	34,200
River Mile	RM 06<07	Mid-channel	Surface	49	4.7 T	1,416,000 T	58,300	219,000	185,000
River Mile	RM 06<07	Mid-channel	Subsurface	76	0.71 JT	12,800,000 T	733,000	2,310,000	3,880,000
River Mile	RM 07<08	Mid-channel	Surface	44	37.7 T	1,200 T	326	200	572
River Mile	RM 07<08	Mid-channel	Subsurface	35	1.39 JT	19,550 T	1,230	3,490	5,910
River Mile	RM 08<09	Mid-channel	Surface	54	57.8 JT	3,480 JA	304	478	570
River Mile	RM 08<09	Mid-channel	Subsurface	36	8.9 T	2,254 T	377	474	1,390
River Mile	RM 09<10	Mid-channel	Surface	34	27 JT	2,580 JA	455	656	2,020
River Mile	RM 09<10	Mid-channel	Subsurface	39	30.3 T	5,300 T	385	828	785
River Mile	RM 10<11	Mid-channel	Surface	43	44 T	8,770 JA	583	1,350	1,200
River Mile	RM 10<11	Mid-channel	Subsurface	68	0.37 JT	7,990 JT	614	1,270	1,870
River Mile	RM 11<11.8	Mid-channel	Surface	9	20 T	950 JA	323	337	850
River Mile	RM 11<11.8	Mid-channel	Subsurface	37	0.75 UT	2,321 T	513	652	2,300
River Mile	Study Area	Mid-channel	Surface	335	4.7 T	7,260,000 T	42,700	414,000	37,300
River Mile	Study Area	Mid-channel	Subsurface	384	0.37 JT	12,800,000 T	147,000	1,060,000	252,000
River Mile	Study Area	East	Surface	757	4.92 JT	868,000 JA	20,200	84,900	96,000
River Mile	Study Area	East	Subsurface	753	0.15 JT	7,800,000 JT	30,100	296,000	97,600
River Mile	RM 00<02	East	Surface	15	1.4 JT	18,000 JT	1,520	4,570	6,060
River Mile	RM 00<02	East	Subsurface	23	10 UT	23,000 T	2,420	5,320	12,900
River Mile	RM 02<03	East	Surface	64	19 UT	240,000 T	5,360	30,500	3,060
River Mile	RM 02<03	East	Subsurface	54	0.88 UT	13,000 T	1,920	2,720	7,070
River Mile	RM 03<04	East	Surface	75	20.8 JT	67,200 JT	2,860	8,560	10,700
River Mile	RM 03<04	East	Subsurface	93	0.28 UT	99,000 T	5,700	15,800	18,000
River Mile	RM 04<05	East	Surface	141	4.92 JT	868,000 JA	84,200	175,000	478,000
River Mile	RM 04<05	East	Subsurface	333	0.15 JT	7,800,000 JT	60,000	442,000	184,000
River Mile	RM 05<06	East	Surface	72	45.1 T	27,230 T	5,170	5,030	14,100
River Mile	RM 05<06	East	Subsurface	33	21.9 JT	66,600 T	11,600	15,900	43,300
River Mile	RM 06<07	East	Surface	107	13.4 UA	385,000 JA	15,500	55,800	85,500
River Mile	RM 06<07	East	Subsurface	61	0.54 JT	351,000 JT	18,300	56,500	59,300
River Mile	RM 07<08	East	Surface	82	10 UA	77,000 JA	2,900	10,200	6,080
River Mile	RM 07<08	East	Subsurface	34	0.75 UT	30,000 T	3,240	6,360	15,900
River Mile	RM 08<09	East	Surface	115	6.73 JT	19,790 T	2,390	3,570	9,940

Table 5.1-6. Summary Statistics - PAHs in Surface and Subsurface Sediments.

Reach Type	Reach	East/West/Mid	Surface/ Subsurface	N	Minimum (µg/kg)	Maximum (µg/kg)	Mean (µg/kg)	Standard Deviation	95th Percentile
River Mile	RM 08<09	East	Subsurface	100	0.48 JT	55,000 T	2,670	8,090	7,190
River Mile	RM 09<10	East	Surface	64	10.3 T	106,400 JT	2,810	13,500	9,460
River Mile	RM 09<10	East	Subsurface	24	12 JT	4,740 T	1,170	1,130	2,760
River Mile	RM 10<11	East	Surface	26	80.3 JT	46,000 T	4,480	10,700	27,000
River Mile	RM 10<11	East	Subsurface	4	18 JT	2,200 T	879	934	1,980
River Mile	RM 11<11.8	East	Surface	6	360 T	2,290 T	966	701	1,960
River Mile	RM 11<11.8	East	Subsurface	9	28.6 JT	84,200 JA	10,600	27,600	52,000
Hydrodynamic	RM 01.9<03	West	Surface	16	84.5 JT	7,540 T	1,790	2,500	7,020
Hydrodynamic	RM 03<05	West	Surface	145	9.75 A	114,000 T	7,200	14,900	38,900
Hydrodynamic	RM 03<05	West	Subsurface	106	2.21 JT	254,000 T	20,800	44,200	91,100
Hydrodynamic	RM 05<06.9	West	Surface	167	76.8 JT	63,400,000 JA	600,000	4,950,000	1,240,000
Hydrodynamic	RM 05<06.9	West	Subsurface	233	0.46 JT	53,300,000 T	1,520,000	5,700,000	8,550,000
Hydrodynamic	RM 06.9<10	West	Surface	256	3.3 JT	149,000 JT	2,910	10,800	10,100
Hydrodynamic	RM 06.9<10	West	Subsurface	210	0.53 JT	358,000 T	4,720	26,600	10,900
Hydrodynamic	RM 10<11.8	West	Surface	39	20 UT	6,250 T	1,030	1,620	5,110
Hydrodynamic	RM 10<11.8	West	Subsurface	6	380 T	4,100 T	1,240	1,420	3,300
Hydrodynamic	RM 01.9<03	Mid-channel	Surface	10	296 JT	2,896 T	1,030	772	2,390
Hydrodynamic	RM 01.9<03	Mid-channel	Subsurface	8	676 T	7,130 T	3,350	2,490	6,770
Hydrodynamic	RM 03<05	Mid-channel	Surface	51	210 JT	10,000 T	2,230	2,290	7,710
Hydrodynamic	RM 03<05	Mid-channel	Surface	9	20 T	950 JA	323	337	850
Hydrodynamic	RM 03<05	Mid-channel	Subsurface	48	5.5 JT	51,000 T	4,630	7,520	12,800
Hydrodynamic	RM 05<06.9	Mid-channel	Surface	87	4.7 T	7,260,000 T	162,000	804,000	605,000
Hydrodynamic	RM 05<06.9	Mid-channel	Subsurface	112	0.39 JT	12,800,000 T	500,000	1,930,000	2,680,000
Hydrodynamic	RM 06.9<10	Mid-channel	Surface	135	27 JT	3,480 JA	346	463	1,200
Hydrodynamic	RM 06.9<10	Mid-channel	Subsurface	111	1.39 JT	19,550 T	656	2,060	1,400
Hydrodynamic	RM 10<11.8	Mid-channel	Surface	52	20 T	8,770 JA	538	1,240	1,200
Hydrodynamic	RM 10<11.8	Mid-channel	Subsurface	105	0.37 JT	7,990 JT	579	1,090	2,220
Hydrodynamic	Swan Island Lagoon	Mid-channel	Surface	91	6.73 JT	106,400 JT	4,100	11,600	12,000
Hydrodynamic	Swan Island Lagoon	Mid-channel	Subsurface	69	1.24 JT	7,730 T	1,170	1,520	4,140
Hydrodynamic	RM 01.9<03	East	Surface	69	19 UT	240,000 T	4,990	29,400	2,970
Hydrodynamic	RM 01.9<03	East	Subsurface	62	0.88 UT	14,000 T	2,010	3,000	7,360
Hydrodynamic	RM 03<05	East	Surface	216	4.92 JT	868,000 JA	55,900	147,000	354,000
Hydrodynamic	RM 03<05	East	Subsurface	426	0.15 JT	7,800,000 JT	48,200	392,000	146,000
Hydrodynamic	RM 05<06.9	East	Surface	159	13.4 UA	288,000 JA	9,910	35,100	27,700
Hydrodynamic	RM 05<06.9	East	Subsurface	88	0.54 JT	351,000 JT	15,000	46,600	46,900
Hydrodynamic	RM 06.9<10	East	Surface	190	10 UT	385,000 JA	4,080	28,700	6,110
Hydrodynamic	RM 06.9<10	East	Subsurface	95	0.48 JT	121,900 T	5,290	15,200	23,000
Hydrodynamic	RM 10<11.8	East	Surface	32	80.3 JT	46,000 T	3,820	9,670	21,200
Hydrodynamic	RM 10<11.8	East	Subsurface	13	18 JT	84,200 JA	7,590	23,000	36,000

Notes:

PAH - polycyclic aromatic hydrocarbon
RM - river mile

Reason codes for qualifiers:

A - Total value based on limited number of analytes.

J - The associated numerical value is an estimated quantity.

N - Presumptive evidence of presence of material; identification of the compound is not definitive.

T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.

U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.

V - Median or 95th percentile obtained through interpolation.

Table 5.1-7. Polycyclic Aromatic Hydrocarbons by Number of Fused Aromatic Rings.

Analyte	Number of Rings
Naphthalene	2
2-Methylnaphthalene	2
Acenaphthylene	3
Acenaphthene	3
Fluorene	3
Phenanthrene	3
Anthracene	3
Fluoranthene	4
Pyrene	4
Benzo(a)anthracene	4
Chrysene	4
Benzo(b)fluoranthene	5
Benzo(k)fluoranthene	5
Benzo(a)pyrene	5
Dibenzo(a,h)anthracene	5
Indeno(1,2,3-cd)pyrene	6
Benzo(g,h,i)perylene	6

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Table 5.2-1. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Round 3 Sediment Trap Samples, First Quarter.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location**	**Mean**	**Median[b]**	**95th[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location**	**Mean (half DL)**	**Median (half DL)[b]**	**95th (half DL)[b]**
Grain Size																
Fines	percent	13	13	100	21.7 T	95.4 T	ST013	73.1	83.8 T	95.2 V	21.7 T	95.4 T	ST013	73.1	83.8 T	95.2 V
Conventionals																
Total organic carbon	percent	13	13	100	1.11	3.02 T	ST005	2.35	2.52	2.99 V	1.11	3.02 T	ST005	2.35	2.52	2.99 V
Metals																
Arsenic	mg/kg	13	13	100	2.82	4.38	ST001	3.81	3.87	4.31 V	2.82	4.38	ST001	3.81	3.87	4.31 V
Cadmium	mg/kg	13	13	100	0.11	0.26	ST002	0.2	0.21	0.254 V	0.11	0.26	ST002	0.2	0.21	0.254 V
Chromium	mg/kg	13	13	100	31.2	47.1	ST013	38.3	38.1 T	43.6 V	31.2	47.1	ST013	38.3	38.1 T	43.6 V
Copper	mg/kg	13	13	100	26.4	52.5	ST013	43.1	46	50.1 V	26.4	52.5	ST013	43.1	46	50.1 V
Lead	mg/kg	13	13	100	6.3	11.9 T	ST005	10.1	10.6	11.7 V	6.3	11.9 T	ST005	10.1	10.6	11.7 V
Mercury	mg/kg	13	13	100	0.031	0.079	ST007	0.0538	0.056	0.0724 V	0.031	0.079	ST007	0.0538	0.056	0.0724 V
Nickel	mg/kg	13	13	100	19.2 J	22.3 JT	ST007	20.8	21.4 JT	22 JV	19.2 J	22.3 JT	ST007	20.8	21.4 J	22 JV
Zinc	mg/kg	13	13	100	78	114	ST013	102	105	112 V	78	114	ST013	102	105	112 V
Butyltins																
Tributyltin ion	µg/kg	13	9	69	1.8 J	4.6	ST004	3.1	3.2	4.4 V	0.12 U	4.6	ST004	2.2	2.6 J	4.4 V
PCB Aroclors																
Aroclors	µg/kg	13	6	46	13 JT	150 T	ST007	40	15 JV	120 JV	3.1 UT	150 T	ST007	20	6 UT	79 JV
PCB Congeners																
Total PCB Congeners	pg/g	13	13	100	5460 JT	28700 JT	ST007	14000	11500 T	26000 JV	5460 JT	28700 JT	ST007	14000	11500 T	26000 JV
Total PCBs[c]																
Total PCBs	µg/kg	13	13	100	5.46 JT	28.7 JT	ST007	14	11.5 T	26 JV	5.46 JT	28.7 JT	ST007	14	11.5 T	26 JV
PCDD/F Homologs																
Total PCDD/F	pg/g	13	13	100	72.2 JT	563 T	ST001	242	209 T	546 V	72.2 JT	563 T	ST001	242	209 T	546 V
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g	13	13	100	0.149 JT	1.65 JT	ST001	0.583	0.461 JT	1.33 JV	0.149 JT	1.65 JT	ST001	0.583	0.461 JT	1.33 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g	13	13	100	0.154 JT	0.484 JT	ST004	0.311	0.321 JT	0.432 JV	0.154 JT	0.484 JT	ST004	0.311	0.321 T	0.432 JV
Pesticides																
Aldrin	µg/kg	13	4	31	0.63 J	1.1 NJT	ST005	0.87	0.87 JV	1.1 JV	0.4 U	1.6 U	ST008	0.53	0.5 U	0.98 JV
Dieldrin	µg/kg	13	0	0	--	--	--	--	--	--	0.52 U	3 U	ST008	0.47	0.4 U	0.87 UV
gamma-Hexachlorocyclohexane	µg/kg	13	0	0	--	--	--	--	--	--	0.27 U	1.6 U	ST008	0.25	0.21 U	0.46 UV
Total Chlordanes	µg/kg	13	12	92	0.24 JT	3.7 NJT	ST008	1.2	0.95 JV	2.8 JV	0.24 JT	3.7 NJT	ST008	1.1	0.9 JT	2.7 JV
Total of 2,4' and 4,4'-DDD	µg/kg	13	11	85	0.53 JT	2.7 T	ST012	1.3	0.9 JT	2.6 JV	0.53 JT	2.9 UT	ST009	1.3	1 JT	2.5 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg	13	12	92	0.98 JT	7.8 JT	ST012	4.5	4.4 JV	7.6 JV	0.98 JT	7.8 JT	ST012	4.2	4.3 JT	7.6 JV
Total of 2,4' and 4,4'-DDE	µg/kg	13	3	23	2 T	2.8 NJT	ST007	2.3	2.1 JT	2.7 JV	0.64 UT	2.8 NJT	ST007	1.1	0.85 UT	2.4 JV
Total of 2,4' and 4,4'-DDT	µg/kg	13	12	92	0.45 NJT	4.8 NJT	ST003; ST010	2.7	2.7 JV	4.8 JV	0.45 NJT	4.8 NJT	ST003; ST010	2.6	2.7 T	4.8 JV
Polycyclic Aromatic Hydrocarbons																
Total BaPEq	µg/kg	13	13	100	9.83 JT	458 T	ST005	80.9	27.8 JT	258 V	9.83 JT	458 T	ST005	80.9	27.8 JT	258 V
Benzo(a)pyrene	µg/kg	13	13	100	7	350 T	ST005	60	20	190 V	7	350 T	ST005	60	20	190 V
High Molecular Weight PAH	µg/kg	13	13	100	82 JT	3300 T	ST005	620	210 JT	2100 V	82 JT	3300 T	ST005	620	210 JT	2100 V
Low Molecular Weight PAH	µg/kg	13	13	100	22 JT	660 T	ST005	120	39 JT	450 V	22 JT	660 T	ST005	120	39 JT	450 V
Naphthalene	µg/kg	13	13	100	3.6	73	ST004	17	7.2	62 V	3.6	73	ST004	17	7.2	62 V
Phenanthrene	µg/kg	13	13	100	9.7	380 T	ST005	59	17	220 V	9.7	380 T	ST005	59	17	220 V
Total cPAHs	µg/kg	13	13	100	41 JT	1600 T	ST005	300	110 JT	980 V	41 JT	1600 T	ST005	300	110 JT	980 V
Total PAHs	µg/kg	13	13	100	100 JT	4000 T	ST005	740	250 JT	2400 JV	100 JT	4000 T	ST005	740	250 JT	2400 JV

Table 5.2-1. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Round 3 Sediment Trap Samples, First Quarter.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location**	**Mean**	**Median[b]**	**95th[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location**	**Mean (half DL)**	**Median (half DL)[b]**	**95th (half DL)[b]**
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg	13	13	100	35	230	ST013	130	110	220 V	35	230	ST013	130	110	220 V
Butylbenzyl phthalate	µg/kg	13	0	0	--	--	--	--	--	--	3.5 U	26 U	ST013	5.6	4.9 U	10 UV
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg	13	8	62	9.2 J	35	ST010	15	12 JV	29 V	7.5 U	35	ST010	11	10 J	25 V
Hexachlorobenzene	µg/kg	13	2	15	0.9 J	2 J	ST003	1.5	1.5 JV	1.9 JV	0.15 U	6.1 U	ST012	1.2	0.55 U	3 UV
Phenols																
Pentachlorophenol	µg/kg	13	13	100	0.78 J	44	ST007	6	2.7 J	22 JV	0.78 J	44	ST007	6	2.7 J	22 JV
Petroleum																
Diesel Range Hydrocarbons	mg/kg	13	13	100	21 J	65 JT	ST005	48	49 J	60 JV	21 J	65 JT	ST005	48	49 J	60 JV
Residual Range Hydrocarbons	mg/kg	13	13	100	230 J	590 JT	ST005	450	450 J	580 JV	230 J	590 JT	ST005	450	450 J	580 JV
Total Petroleum Hydrocarbons	mg/kg	13	13	100	250 JT	670 JT	ST005	500	500 JT	650 JV	250 JT	670 JT	ST005	500	500 JT	650 JV

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners whenever available and total Aroclors if not.

Reason codes for qualifiers:

J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

– data not available.
BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TEQ - toxic equivalent concentration
TOC - total organic carbon

Table 5.2-2. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Round 3 Sediment Trap Samples, Second Quarter.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Grain Size																
Fines	percent	12	12	100	71.3 T	98.3 T	ST002	87.3	89.1 V	97 V	71.3 T	98.3 T	ST002	87.3	89.1 V	97 V
Conventionals																
Total organic carbon	percent	12	12	100	2.46	3.14	ST008	2.83	2.77 V	3.12 V	2.46	3.14	ST008	2.83	2.77 V	3.12 V
Metals																
Arsenic	mg/kg	12	12	100	4.45 T	5.6 T	ST002; ST012	4.89	4.8 V	5.6 V	4.45 T	5.6	ST002; ST012	4.89	4.8 V	5.6 V
Cadmium	mg/kg	12	12	100	0.188 J	0.308 J	ST002	0.249	0.247 JV	0.301 JV	0.188 J	0.308	ST002	0.249	0.247 JV	0.301 JV
Chromium	mg/kg	12	12	100	28.7 J	38.9 J	ST012	32.2	31.4 JV	37.4 JV	28.7 J	38.9 J	ST012	32.2	31.4 JV	37.4 JV
Copper	mg/kg	12	12	100	39.7	56	ST004	46	44.2 V	55.8 V	39.7	56	ST004	46	44.2 V	55.8 V
Lead	mg/kg	12	12	100	11.5	16.4	ST002	14	13.9 V	16.2 V	11.5	16.4	ST002	14	13.9 V	16.2 V
Mercury	mg/kg	12	12	100	0.044	0.063	ST004	0.0542	0.0545 V	0.0619 V	0.044	0.063	ST004	0.0542	0.0545 V	0.0619 V
Nickel	mg/kg	12	12	100	24.4	32	ST012	27.5	27.2 V	31 V	24.4	32	ST012	27.5	27.2 V	31 V
Zinc	mg/kg	12	12	100	93.5	143	ST015	123	126 V	139 V	93.5	143	ST015	123	126 V	139 V
Butyltins																
Tributyltin ion	µg/kg	12	10	83	0.48 J	4.9 J	ST004	1.8	1.5 JV	4.2 V	0.42 U	4.9	ST004	1.5	1.5 JV	4.1 V
PCB Aroclors																
Aroclors	µg/kg	12	10	83	7.1 JT	71 JT	ST007	26	24 JV	58 JV	4.3 UT	71 JT	ST007	22	20 JV	56 JV
PCB Congeners																
Total PCB Congeners	pg/g	12	12	100	4070 JT	840000 JT	ST007	80600	10200 V	395000 V	4070 JT	840000 T	ST007	80600	10200 V	395000 V
Total PCBs[c]																
Total PCBs	µg/kg	12	12	100	4.07 JT	840 JT	ST007	80.6	10.2 V	395 V	4.07 JT	840 T	ST007	80.6	10.2 V	395 V
PCDD/F Homologs																
Total PCDD/F	pg/g	12	12	100	5.16 JT	304 JT	ST004	167	202 JV	286 JV	5.16 JT	304 JT	ST004	167	202 JV	286 JV
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g	12	12	100	0.0529 JT	1.42 JT	ST005	0.372	0.295 JV	0.961 JV	0.0529 JT	1.42 JT	ST005	0.372	0.295 JV	0.961 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g	12	12	100	0.166 JT	4.03 JT	ST007	0.627	0.309 V	2.16 V	0.166 JT	4.03 T	ST007	0.627	0.309 V	2.16 V
Pesticides																
Aldrin	µg/kg	12	0	0	--	--	--	--	--	--	0.38 U	0.78 U	ST007	0.24	0.22 UV	0.31 UV
Dieldrin	µg/kg	12	0	0	--	--	--	--	--	--	0.72 U	0.95 U	ST011	0.42	0.42 UV	0.47 UV
gamma-Hexachlorocyclohexane	µg/kg	12	0	0	--	--	--	--	--	--	0.38 U	0.99 U	ST005; ST007	0.27	0.24 UV	0.5 UV
Total Chlordanes	µg/kg	12	7	58	0.22 NJT	0.84 NJT	ST007	0.5	0.45 JT	0.84 JV	0.22 NJT	1.3 UT	ST011	0.52	0.5 JV	0.83 JV
Total of 2,4' and 4,4'-DDD	µg/kg	12	12	100	0.76 JT	3.3 JT	ST005	1.4	1 V	2.9 JV	0.76 JT	3.3 JT	ST005	1.4	1 V	2.9 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg	12	12	100	2.8 JT	9 JT	ST015	6	6.1 JV	8.9 JV	2.8 JT	9 NJT	ST015	6	6.1 JV	8.9 JV
Total of 2,4' and 4,4'-DDE	µg/kg	12	12	100	1.8 T	2.5 T	ST012	2.2	2.2 V	2.4 V	1.8 T	2.5 T	ST012	2.2	2.2 V	2.4 V
Total of 2,4' and 4,4'-DDT	µg/kg	12	11	92	0.57 JT	4.9 JT	ST015	2.7	3 NJT	4.1 JV	0.57 JT	4.9 NJT	ST015	2.5	3 JV	4 JV
Polycyclic Aromatic Hydrocarbons																
Total BaPEq	µg/kg	12	12	100	10.8 JT	590 JT	ST005	84	27.6 JV	335 V	10.8 JT	590 T	ST005	84	27.6 JV	335 V
Benzo(a)pyrene	µg/kg	12	12	100	7.6	440	ST005	63	21 V	250 V	7.6	440	ST005	63	21 V	250 V
High Molecular Weight PAH	µg/kg	12	12	100	69 JT	3500 JT	ST005	500	190 JV	1900 V	69 JT	3500 T	ST005	500	190 JV	1900 V
Low Molecular Weight PAH	µg/kg	12	12	100	8.2 JT	580 JT	ST005	81	31 JV	310 V	8.2 JT	580 T	ST005	81	31 JV	310 V
Naphthalene	µg/kg	12	4	33	11	58	ST005	23	12 V	51 V	0.41 U	58	ST005	7.9	0.32 UJV	33 V
Phenanthrene	µg/kg	12	12	100	4.8	300	ST005	41	18 V	160 V	4.8	300	ST005	41	18 V	160 V
Total cPAHs	µg/kg	12	12	100	39 JT	2000 JT	ST005	280	96 JV	1100 V	39 JT	2000 T	ST005	280	96 JV	1100 V
Total PAHs	µg/kg	12	12	100	77 JT	4100 JT	ST005	580	230 JV	2300 V	77 JT	4100 T	ST005	580	230 JV	2300 V

Table 5.2-2. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Round 3 Sediment Trap Samples, Second Quarter.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg	12	12	100	85	290	ST007	150	140 V	220 V	85	290	ST007	150	140 V	220 V
Butylbenzyl phthalate	µg/kg	12	3	25	13 J	21 J	ST007	16	14	20 V	8.7 U	21	ST007	7.6	4.8 UV	17 V
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg	12	1	8.3	17	17	ST008	17	17	17	5.2 U	17	ST008	4.2	3.1 UV	9.5 V
Hexachlorobenzene	µg/kg	12	1	8.3	1.1 J	1.1 J	ST009	1.1	1.1 J	1.1 J	0.22 U	1.3 U	ST003	0.5	0.5 UV	0.85 JV
Phenols																
Pentachlorophenol	µg/kg	12	12	100	0.8 NJ	5 NJ	ST007	2.2	1.8 JV	4.6 JV	0.8 NJ	5 J	ST007	2.2	1.8 JV	4.6 JV
Petroleum																
Diesel Range Hydrocarbons	mg/kg	12	12	100	82 J	120 J	ST007	94	95 JV	110 JV	82 J	120 JT	ST007	94	95 JV	110 JV
Residual Range Hydrocarbons	mg/kg	12	12	100	430 J	600 J	ST005; ST007; ST016	540	560 JV	600 JV	430 J	600 JT	ST005; ST007; ST016	540	560 JV	600 JV
Total Petroleum Hydrocarbons	mg/kg	12	12	100	510 JT	730 JT	ST007	640	670 JV	720 JV	510 JT	730 JT	ST007	640	670 JV	720 JV

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualificatio

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners whenever available and total Aroclors if not

Reason codes for qualifiers:

J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

-- data not available.
BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TEQ - toxic equivalent concentration
TOC - total organic carbon

Table 5.2-3. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Round 3 Sediment Trap Samples, Third Quarter.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Grain Size																
Fines	percent	6	6	100	74.8 T	99.1 T	ST004	90.1	91.8 JV	98.4 V	74.8 T	99.1 T	ST004	90.1	91.8 JV	98.4 V
Conventionals																
Total organic carbon	percent	10	10	100	1.98	3.24	ST006	2.7	2.68 V	3.13 V	1.98	3.24	ST006	2.7	2.68 V	3.13 V
Metals																
Arsenic	mg/kg	9	9	100	3.04	5.65 T	ST006	4.1	3.6	5.59 V	3.04	5.65 T	ST006	4.1	3.6	5.59 V
Cadmium	mg/kg	9	9	100	0.224	0.61	ST002	0.372	0.389	0.594 V	0.224	0.61	ST002	0.372	0.389	0.594 V
Chromium	mg/kg	9	9	100	21.7	59.5	ST009	35.5	32.4	52.7 V	21.7	59.5	ST009	35.5	32.4	52.7 V
Copper	mg/kg	9	9	100	32.2	93.6 T	ST006	49.3	37.8	86.2 V	32.2	93.6 T	ST006	49.3	37.8	86.2 V
Lead	mg/kg	9	9	100	15.3	41.3 T	ST006	22.1	19.9	35.1 V	15.3	41.3 T	ST006	22.1	19.9	35.1 V
Mercury	mg/kg	9	9	100	0.06	0.163 JT	ST002	0.0836	0.068	0.136 JV	0.06	0.163 JT	ST002	0.0836	0.068	0.136 JV
Nickel	mg/kg	9	9	100	18.4	44.2	ST009	26.5	24	38.2 V	18.4	44.2	ST009	26.5	24	38.2 V
Zinc	mg/kg	9	9	100	108	319 T	ST006	153	117	265 V	108	319 T	ST006	153	117	265 V
Butyltins																
Tributyltin ion	µg/kg	8	7	88	2.3 JT	64	ST006	15	7.1	49 V	0.24 U	64	ST006	13	6 V	46 V
PCB Aroclors																
Aroclors	µg/kg	10	7	70	10 JT	1800 T	ST007	313	39.2 NJT	1310 V	6.5 UT	1800 T	ST007	235	35.1 JV	1060 V
PCB Congeners																
Total PCB Congeners	pg/g	11	11	100	3140 JT	4830000 JT	ST007	470000	29900 JT	2460000 JV	3140 JT	4830000 JT	ST007	470000	29900 JT	2460000 JV
Total PCBs[c]																
Total PCBs	µg/kg	11	11	100	3.14 JT	4830 JT	ST007	470	29.9 JT	2460 JV	3.14 JT	4830 JT	ST007	470	29.9 JT	2460 JV
PCDD/F Homologs																
Total PCDD/F	pg/g	7	7	100	120 JT	1820 JT	ST007	564	191 JT	1650 JV	120 JT	1820 JT	ST007	564	191 JT	1650 JV
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g	7	7	100	0.157 JT	4.73 JT	ST007	1.39	0.631 JT	4.19 JV	0.157 JT	4.73 JT	ST007	1.39	0.631 JT	4.19 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g	11	11	100	0.0248 JT	35.2 T	ST007	3.81	0.466 T	19 V	0.0248 JT	35.2 T	ST007	3.81	0.466 T	19 V
Pesticides																
Aldrin	µg/kg	9	0	0	--	--	--	--	--	--	0.25 U	0.92 U	ST007	0.25	0.21 U	0.42 UV
Dieldrin	µg/kg	9	3	33	1.4 J	4.9	ST006	3.2	3.3 J	4.7 JV	0.75 UT	13 U	ST007	2	0.55 U	5.9 V
gamma-Hexachlorocyclohexane	µg/kg	9	0	0	--	--	--	--	--	--	0.39 UT	1.7 U	ST006	0.3	0.23 U	0.62 UV
Total Chlordanes	µg/kg	9	5	56	1 NJT	3.1 NJT	ST006	1.6	1.3 NJT	2.8 JV	0.71 UT	98 UT	ST007	6.5	1.1 JT	31 JV
Total of 2,4' and 4,4'-DDD	µg/kg	9	9	100	0.69 JT	24 T	ST007	5.6	4.2 NJT	17 JV	0.69 JT	24 T	ST007	5.6	4.2 NJT	17 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg	9	9	100	2.4 JT	25 NJT	ST006	13	8 NJT	25 JV	2.4 JT	25 NJT	ST006	13	8 NJT	25 JV
Total of 2,4' and 4,4'-DDE	µg/kg	9	8	89	1.5 T	4.9 T	ST006	2.7	2.4 V	4.5 JV	0.92 UT	4.9 T	ST006	2.4	2.2 T	4.5 JV
Total of 2,4' and 4,4'-DDT	µg/kg	9	7	78	1.6 JT	17 JT	ST014	6.4	3.6 JT	16 JV	0.62 UT	17 JT	ST014	5.8	3.6 JT	15 JV
Polycyclic Aromatic Hydrocarbons																
Total BaPEq	µg/kg	9	9	100	18.2 JT	231 T	ST006	85.1	60.9 T	197 V	18.2 JT	231 T	ST006	85.1	60.9 T	197 V
Benzo(a)pyrene	µg/kg	9	9	100	12	150	ST006	56	43	130 V	12	150	ST006	56	43	130 V
High Molecular Weight PAH	µg/kg	9	9	100	150 JT	2000 T	ST006	760	500 T	1800 V	150 JT	2000 T	ST006	760	500 T	1800 V
Low Molecular Weight PAH	µg/kg	9	9	100	48 JT	360 T	ST006	130	88 JT	300 V	48 JT	360 T	ST006	130	88 JT	300 V
Naphthalene	µg/kg	10	9	90	8.6	39	ST006	19	18	37 V	0.48 U	39	ST006	17	15 V	37 V
Phenanthrene	µg/kg	9	9	100	14	180	ST006	65	40 T	160 V	14	180	ST006	65	40 T	160 V
Total cPAHs	µg/kg	9	9	100	73 JT	1000 T	ST006	380	230 T	890 V	73 JT	1000 T	ST006	380	230 T	890 V
Total PAHs	µg/kg	9	9	100	200 JT	2300 T	ST006	880	640 T	2000 JV	200 JT	2300 T	ST006	880	640 T	2000 JV

Table 5.2-3. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Round 3 Sediment Trap Samples, Third Quarter.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location**	**Mean**	**Median[b]**	**95th[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location**	**Mean (half DL)**	**Median (half DL)[b]**	**95th (half DL)[b]**
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg	9	9	100	81	1600	ST006	360	210	1100 V	81	1600	ST006	360	210	1100 V
Butylbenzyl phthalate	µg/kg	9	5	56	11 JT	110	ST006	32	14 J	91 JV	9.7 U	110	ST006	20	11 JT	72 JV
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg	9	9	100	10 JT	42 J	ST006	20	16	37 JV	10 JT	42 J	ST006	20	16 J	37 JV
Hexachlorobenzene	µg/kg	9	1	11	2.2	2.2	ST007	2.2	2.2	2.2	0.46 U	2.6 U	ST009	0.68	0.39 U	1.8 V
Phenols																
Pentachlorophenol	µg/kg	6	1	17	2.6 NJT	2.6 NJT	ST015	2.6	2.6 NJT	2.6 NJT	0.38 U	2.6 NJT	ST015	0.62	0.22 UV	2 JV
Petroleum																
Diesel Range Hydrocarbons	mg/kg	9	9	100	110 JT	470 J	ST006	180	150 J	390 JV	110 JT	470 J	ST006	180	150 J	390 JV
Residual Range Hydrocarbons	mg/kg	9	9	100	480 J	2100 J	ST006	910	770 J	1800 JV	480 J	2100 J	ST006	910	770 J	1800 JV
Total Petroleum Hydrocarbons	mg/kg	9	9	100	600 JT	2570 JT	ST006	1100	920 JT	2170 JV	600 JT	2570 JT	ST006	1100	920 JT	2170 JV

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners whenever available and total Aroclors if not.

Reason codes for qualifiers:

A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

-- data not available.
BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TEQ - toxic equivalent concentration
TOC - total organic carbon

Table 5.2-4. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Round 3 Sediment Trap Samples, Fourth Quarter.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Grain Size																
Fines	percent	13	13	100	42.6 T	106 T	ST011	84.2	86 T	100 V	42.6 T	106 T	ST011	84.2	86 T	100 V
Conventionals																
Total organic carbon	percent	16	16	100	2	3.47	ST009	2.54	2.57 V	3.25 V	2	3.47	ST009	2.54	2.57 V	3.25 V
Metals																
Arsenic	mg/kg	16	16	100	1.48 J	7.01	ST011	5.02	5.16 V	6.77 V	1.48 J	7.01	ST011	5.02	5.16 V	6.77 V
Cadmium	mg/kg	16	16	100	0.084 J	0.676	ST002	0.329	0.286 V	0.583 V	0.084 J	0.676	ST002	0.329	0.286 V	0.583 V
Chromium	mg/kg	16	16	100	10.8	39.3	ST004	31.8	33.9 V	38.9 V	10.8	39.3	ST004	31.8	33.9 V	38.9 V
Copper	mg/kg	16	16	100	15.2	63	ST004	47.8	50.1 V	61.1 V	15.2	63	ST004	47.8	50.1 V	61.1 V
Lead	mg/kg	16	16	100	6.19	27.1	ST006	17.4	17 V	24.8 V	6.19	27.1	ST006	17.4	17 V	24.8 V
Mercury	mg/kg	16	15	93.8	0.06	0.172	ST006	0.0901	0.081	0.166 V	0.034 U	0.172	ST006	0.0856	0.08 V	0.166 V
Nickel	mg/kg	16	16	100	7.94	33	ST007	25.6	27.7 V	31.8 V	7.94	33	ST007	25.6	27.7 V	31.8 V
Zinc	mg/kg	16	16	100	71.6	254	ST006	152	156 V	197 V	71.6	254	ST006	152	156 V	197 V
Butyltins																
Tributyltin ion	µg/kg	15	12	80	0.6 JT	81	ST006	12	4.7 V	44 V	0.24 U	81	ST006	9.5	4.3	33 V
PCB Aroclors																
Aroclors	µg/kg	13	7	54	7.7 JT	2600 T	ST007	400	23 JT	1800 V	6.5 UT	2600 T	ST007	220	12 T	1100 V
PCB Congeners																
Total PCB Congeners	pg/g	16	16	100	7560 JT	11100000 JT	ST007	727000	24300 JV	2860000 JV	7560 JT	11100000 JT	ST007	727000	24300 JV	2860000 JV
Total PCBs[c]																
Total PCBs	µg/kg	16	16	100	7.56 JT	11100 JT	ST007	727	24.3 JV	2860 JV	7.56 JT	11100 JT	ST007	727	24.3 JV	2860 JV
PCDD/F Homologs																
Total PCDD/F	pg/g	16	16	100	37.4 JT	6100 JT	ST006	606	122 JV	2320 JV	37.4 JT	6100 JT	ST006	606	122 JV	2320 JV
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g	16	16	100	0.0678 JT	16.3 JT	ST006	1.47	0.211 JV	5.44 JV	0.0678 JT	16.3 JT	ST006	1.47	0.211 JV	5.44 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g	16	16	100	0.0181 JT	80.3 JT	ST007	5.66	0.631 JV	22.3 JV	0.0181 JT	80.3 JT	ST007	5.66	0.631 JV	22.3 JV
Pesticides																
Aldrin	µg/kg	16	1	6.3	0.61 NJ	0.61 NJ	ST014	0.61	0.61 NJ	0.61 NJ	0.16 U	1.2 U	ST006	0.18	0.11 UV	0.6 JV
Dieldrin	µg/kg	16	2	12.5	0.15 NJ	0.34 NJ	ST009	0.245	0.245 JV	0.331 JV	0.045 UT	0.64 U	ST005	0.195	0.178 UV	0.325 JV
gamma-Hexachlorocyclohexane	µg/kg	16	2	13	0.48 J	2.5 J	ST007	1.5	1.5 JV	2.4 JV	0.1 U	2.5 J	ST007	0.35	0.18 UV	1.1 JV
Total Chlordanes	µg/kg	16	11	69	0.41 NJT	3.4 NJT	ST011	1.2	0.83 JT	2.6 JV	0.41 NJT	460 UT	ST007	15	0.81 JV	60 JV
Total of 2,4' and 4,4'-DDD	µg/kg	16	16	100	0.78 T	150 T	ST007	13	2.8 JV	51 V	0.78 T	150 T	ST007	13	2.8 JV	51 V
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg	16	16	100	2.6 T	150 T	ST007	20	8.2 JV	62 JV	2.6 T	150 T	ST007	20	8.2 JV	62 JV
Total of 2,4' and 4,4'-DDE	µg/kg	16	15	94	1.4 T	5.9 NJT	ST005	2.6	2.2 T	5.1 JV	1.4 T	18 UT	ST007	3	2.3 V	6.7 JV
Total of 2,4' and 4,4'-DDT	µg/kg	16	11	69	1.1 NJT	19 NJT	ST006	6.2	5 T	14 JV	0.62 UT	91 UT	ST007	7.4	3.8 JV	26 JV
Polycyclic Aromatic Hydrocarbons																
Total BaPEq	µg/kg	15	15	100	21.8 JT	1480 T	ST005	184	50.4 T	772 V	21.8 JT	1480 T	ST005	184	50.4 T	772 V
Benzo(a)pyrene	µg/kg	15	15	100	15 T	1100	ST005	140	34	580 V	15 T	1100	ST005	140	34	580 V
High Molecular Weight PAH	µg/kg	15	15	100	160 JT	9200 T	ST005	1200	480 T	4500 V	160 JT	9200 T	ST005	1200	480 T	4500 V
Low Molecular Weight PAH	µg/kg	15	15	100	30 JT	1500 T	ST005	190	95 T	580 JV	30 JT	1500 T	ST005	190	95 T	580 JV
Naphthalene	µg/kg	16	15	94	6.5 T	120	ST005	22	16	57 V	0.39 U	120	ST005	20	16 V	53 V
Phenanthrene	µg/kg	15	15	100	13 T	830	ST005	94	48	300 V	13 T	830	ST005	94	48	300 V
Total cPAHs	µg/kg	15	15	100	87 JT	5200 T	ST005	670	230 T	2700 V	87 JT	5200 T	ST005	670	230 T	2700 V
Total PAHs	µg/kg	15	15	100	190 JT	11000 T	ST005	1400	580 T	5200 JV	190 JT	11000 T	ST005	1400	580 T	5200 JV

Table 5.2-4. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Round 3 Sediment Trap Samples, Fourth Quarter.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg	15	15	100	68	710	ST006	220	150	550 JV	68	710	ST006	220	150 J	550 JV
Butylbenzyl phthalate	µg/kg	15	12	80	8.6 J	130	ST007	36	10 JV	110 JV	8.6 J	130	ST007	30	9.8 J	110 JV
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg	15	11	73	5.3 J	30	ST007	11	8.7 J	22 JV	5.3 J	30	ST007	10	9 JT	19 JV
Hexachlorobenzene	µg/kg	16	9	56	0.15 J	10	ST007	1.6	0.36	6.7 V	0.12 U	10	ST007	0.99	0.25 JV	3.8 V
Phenols																
Pentachlorophenol	µg/kg	13	3	23	6.3 NJ	23	ST016	15	15 JT	22 JV	0.51 U	23	ST016	4.2	0.85 U	18 JV
Petroleum																
Diesel Range Hydrocarbons	mg/kg	13	13	100	75.2 JT	170 J	ST010	118	120 J	164 JV	75.2 JT	170 J	ST010	118	120 J	164 JV
Residual Range Hydrocarbons	mg/kg	13	13	100	422 JT	1100 J	ST010	675	620 J	897 JV	422 JT	1100 J	ST010	675	620 JT	897 JV
Total Petroleum Hydrocarbons	mg/kg	13	13	100	497 JT	1280 JT	ST010	795	740 JT	1050 JV	497 JT	1280 JT	ST010	795	740 JT	1050 JV

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners whenever available and total Aroclors if not.

Reason codes for qualifiers:

J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

– data not available.
BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TEQ - toxic equivalent concentration
TOC - total organic carbon

Table 5.2-5. Sediment Trap Sample Information and Station Coordinates.

Location	River Mile[a]	Water Depth (ft)	Coordinates			
			Northing[b]	Easting[b]	Latitude (°N)	Longitude (°W)
ST001	1.9E	19	725222	7617870	45 37.9936	122 47.0541
ST002	1.8W	26	726356	7616862	45 38.1753	122 47.2980
ST003	2.9 (Multnomah Channel)	31	720286	7613456	45 37.1610	122 48.0560
ST004	6.0E	30	707291	7623479	45 35.0699	122 45.6213
ST005	6.0W	28	706509	7622786	45 34.9382	122 45.7785
ST006	9.0 (Swan Island Lagoon)	20	699027	7636489	45 33.7698	122 42.5205
ST007	11.3E	27	689178	7644322	45 32.1845	122 40.6242
ST008	11.5W	28	687861	7644207	45 31.9675	122 40.6426
ST009	15.7E	19	666725	7647077	45 28.5033	122 39.8385
ST010	15.6W	27	667278	7646323	45 28.5909	122 40.0183
ST011	3.5E	24	718185	7617360	45 36.8335	122 47.1272
ST012	4.5W	29	712615	7618224	45 35.9215	122 46.8878
ST013	6.7E	27	705423	7626969	45 34.7788	122 44.7915
ST014	7.5W	23	701232	7628746	45 34.0970	122 44.3715
ST015	9.7W	34	694607	7637564	45 33.0476	122 42.2405
ST016	9.9E	39	694895	7639305	45 33.1028	122 41.8347

Notes:

[a] Based on site characterization and risk assessment (SCRA) data

[b] Oregon State Plane North - feet; NAD (North American Datum) 83.

Table 5.2-6. Sampling Dates and Average Thickness of the Sediment Collected in Each Sediment Trap Assembly.

Location	River Mile[a] (East or West Side)	Initial Deployment Date	Date Sampled Q1	Average Sediment Height (cm)	Date Sampled Q2	Average Sediment Height (cm)	Date Sampled Q3	Average Sediment Height (cm)	Date Sampled Q4	Average Sediment Height (cm)
ST001	1.9E	10/31/2006	1/30/2007	7	5/1/2007	2.4[b]	8/16/2007	1.5[b]	11/14/2007	6.1
ST002	1.8W	10/31/2006	1/30/2007	14.6	5/1/2007	5.1	8/16/2007	5.3	11/14/2007	6
ST003	2.9 (Multnomah Channel)	10/31/2006	2/1/2007	17.1	5/1/2007	4.6	8/16/2007	<1[b]	11/14/2007	1.4
ST004	6.0E	11/1/2006	1/30/2007	11.6	4/30/2007	4.2	8/8/2007	6.6	11/13/2007	5.8
ST005	6.0W	10/31/2006	1/30/2007	27.7	4/30/2007	10.2	8/8/2007	2.3	11/13/2007	7.9
ST006	9.0 (Swan Island Lagoon)	11/1/2006	sampler not found	---	5/1/2007	< 1[b]	8/16/2007	4	11/13/2007	2
ST007	11.3E	11/2/2006	1/31/2007	37.4	4/30/2007	10	8/17/2007	7.1	11/13/2007	7.9
ST008	11.5W	11/1/2006	1/31/2007	69.1	4/30/2007	16	8/17/2007	2.9[b]	11/13/2007	12.5
ST009	15.7E	11/2/2006	2/2/2007	6.3	4/30/2007	10.7	8/17/2007	4.9	11/13/2007	1.7
ST010	15.6W	11/2/2006	2/2/2007	52.3	4/30/2007	9.7	8/17/2007	1.4[b]	11/13/2007	6
ST011	3.5E	10/31/2006	2/1/2007	8.8	5/2/2007	3.4	8/16/2007	2	11/14/2007	5.9
ST012	4.5W	10/31/2006	2/1/2007	23.9	5/2/2007	6.8	8/16/2007	10	11/14/2007	6.2
ST013	6.7E	11/1/2006	2/1/2007	8.2	4/30/2007	1.6[b]	8/16/2007	1.1	11/13/2007	3.3
ST014	7.5W	10/30/2006	sampler not found	---	sampler not found	---	8/16/2007	12	11/13/2007	21
ST015	9.7W	10/30/2006	1/31/2007	20	5/1/2007	3.9	8/17/2007	16.7	11/13/2007	9.2
ST016	9.9E	11/1/2006	sampler not found	---	5/1/2007	7	8/17/2007	3[b]	11/13/2007	4

Notes:

[a] Based on site characterization and risk assessment (SCRA) data.

[b] Samples not collected; re-deployed with existing sediment.

Table 5.3-1. Surface Water Sampling Event Flow Conditions Summary.

Sample Event Round	Event	Flow Conditions	Sampling Event Period	Number of Days Sampled	Start Date Flow[a] (cfs)	End Date Flow[a] (cfs)	Average Flow[a,b] During Sample Event (cfs)	Maximum Flow[a] During Sample Event (cfs)	Minimum Flow[a] During Sample Event (cfs)
2A	Nov 2004	Low Flow	11/8 - 12/2	15	24,700	18,300	19,400	24,700	14,900
2A	Mar 2005	Low Flow	3/1 - 3/17	13	11,900	8,640	9,970	11,900	8,390
2A	Jul 2005	Low Flow	7/5 - 7/20	12	10,800	8,910	10,100	10,800	8,910
3A	Jan 2006	High Flow	1/19 - 1/21	3	169,000	167,000	168,000	169,000	167,000
3A	Sep 2006	Low Flow	9/4 - 9/13	7	8,450	9,080	8,810	9,240	8,320
3A	Nov 2006	Stormwater-Influenced	11/2 - 11/5	4	18,700	30,100	23,000	30,100	18,700
3A	Jan 2007[c]	High Flow	1/15 - 1/18, 2/21 - 3/10	18	60,100	49,900	59,800	72,600	46,400

Notes:

[a] This velocity-discharge rating is considered unknown at discharges below 20,000 cfs.

[b] Average of daily flows reported for USGS gauging station Willamette River at Morrison Bridge (station ID 14211720).

[c] The January 2007 high flow event was cancelled after two days of sampling due to an unexpected change in flow conditions. Sampling resumed on February 21, 2007.

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Table 5.3-2. Summary Statistics for Total Suspended Solids and Indicator Chemicals in Surface Water, High-Flow Events - Transect Locations.

							Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Fraction	Method	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Conventionals																		
Total suspended solids	total	Peristaltic	mg/L	20	20	100	9	62 T	W023	24	18 JV	54 V	9	62 T	W023	24	18 JV	54 V
Total suspended solids w/0.45 µm filter	total	Peristaltic	mg/L	12	12	100	11	42	W027	21	22 JV	34 V	11	42	W027	21	22 JV	34 V
Metals																		
Arsenic	dissolved	Peristaltic	µg/L	20	20	100	0.184	0.281 J	W027	0.219	0.21 V	0.274 JV	0.184	0.281 J	W027	0.219	0.21 V	0.274 JV
Arsenic	total	Peristaltic	µg/L	20	20	100	0.254 T	0.54	W005; W023	0.347	0.321 JV	0.54 V	0.254 T	0.54	W005; W023	0.347	0.321 JV	0.54 V
Copper	dissolved	Peristaltic	µg/L	20	20	100	0.43	2.39 J	W023	0.844	0.665 JV	1.32 JV	0.43	2.39 J	W023	0.844	0.665 JV	1.32 JV
Copper	total	Peristaltic	µg/L	20	20	100	1.1 T	3.68 J	W023	2.05	1.83 V	3.58 JV	1.1 T	3.68 J	W023	2.05	1.83 V	3.58 JV
Lead	dissolved	Peristaltic	µg/L	20	12	60	0.008 J	0.179	W011	0.0843	0.0765 V	0.174 V	0.007 U	0.179	W011	0.0524	0.012 JV	0.17 V
Lead	total	Peristaltic	µg/L	20	20	100	0.167	0.855	W023	0.427	0.391 V	0.824 V	0.167	0.855	W023	0.427	0.391 V	0.824 V
Zinc	dissolved	Peristaltic	µg/L	20	1	5	2.5	2.5	W005	2.5	2.5	2.5	0.6 U	2.9 U	W011	0.85	0.78 UV	1.5 V
Zinc	total	Peristaltic	µg/L	20	20	100	1.85 T	6.38	W023; W024	4.07	4.1 V	6.38 V	1.85 T	6.38	W023; W024	4.07	4.1 V	6.38 V
PCB Congeners																		
Total PCB Congeners	total	XAD Column	pg/L	19	19	100	34.6 JT	99.6 JT	W027	65.3	67.4 JT	99.5 JV	34.6 JT	99.6 JT	W027	65.3	67.4 JT	99.5 JV
Total PCB Congeners	total	XAD Filter	pg/L	19	19	100	7.33 JT	313 JT	W005	90.8	76 JT	190 JV	7.33 JT	313 JT	W005	90.8	76 JT	190 JV
Total PCB Congeners	total	XAD Column+Filter	pg/L	19	19	100	41.9 JT	391 JT	W005	156	137 JT	287 JV	41.9 JT	391 JT	W005	156	137 JT	287 JV
Total PCBs[c]																		
Total PCBs	total	XAD Column	µg/L	19	19	100	0.0000346 JT	0.0000996 JT	W027	0.0000653	0.0000674 JT	0.0000995 JV	0.0000346 JT	0.0000996 JT	W027	0.0000653	0.0000674 JT	0.0000995 JV
Total PCBs	total	XAD Filter	µg/L	19	19	100	7.33E-06 JT	0.000313 JT	W005	0.0000908	0.000076 JT	0.00019 JV	7.33E-06 JT	0.000313 JT	W005	0.0000908	0.000076 JT	0.00019 JV
Total PCBs	total	XAD Column+Filter	µg/L	19	19	100	0.0000419 JT	0.000391 JT	W005	0.000156	0.000137 JT	0.000287 JV	0.0000419 JT	0.000391 JT	W005	0.000156	0.000137 JT	0.000287 JV
PCDD/F Homologs																		
Total PCDD/F	total	XAD Column	pg/L	19	19	100	1.41 JT	4.43 JT	W024	2.97	3.31 JT	4.16 JV	1.41 JT	4.43 JT	W024	2.97	3.31 JT	4.16 JV
Total PCDD/F	total	XAD Filter	pg/L	19	19	100	3.2 JT	40.2 T	W005	18.2	18.1 T	30.6 V	3.2 JT	40.2 T	W005	18.2	18.1 T	30.6 V
Total PCDD/F	total	XAD Column+Filter	pg/L	19	19	100	5.36 JT	44 T	W005	21.2	21.6 JT	33.8 JV	5.36 JT	44 T	W005	21.2	21.6 JT	33.8 JV
PCDD/Fs																		
Dioxin/furan TCDD toxicity equivalent (ND = 0)	total	XAD Column	pg/L	19	19	100	0.00288 T	0.0182 JT	W024	0.00865	0.00836 JT	0.0153 JV	0.00288 T	0.0182 JT	W024	0.00865	0.00836 JT	0.0153 JV
Dioxin/furan TCDD toxicity equivalent (ND = 0)	total	XAD Filter	pg/L	19	19	100	0.00497 JT	0.0763 JT	W023	0.0386	0.039 JT	0.0717 JV	0.00497 JT	0.0763 JT	W023	0.0386	0.039 JT	0.0717 JV
Dioxin/furan TCDD toxicity equivalent (ND = 0)	total	XAD Column+Filter	pg/L	19	19	100	0.0113 JT	0.0912 JT	W023	0.0472	0.0474 JT	0.0867 JV	0.0113 JT	0.0912 JT	W023	0.0472	0.0474 JT	0.0867 JV
Total PCB TEQ																		
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	total	XAD Column	pg/L	19	19	100	0.0000325 T	0.0000837 JT	W005	0.0000573	0.0000584 JT	0.0000829 JV	0.0000325 T	0.0000837 JT	W005	0.0000573	0.0000584 JT	0.0000829 JV
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	total	XAD Filter	pg/L	19	19	100	0.0000208 JT	0.00295 JT	W027	0.00116	0.00124 JT	0.00272 JV	0.0000208 JT	0.00295 JT	W027	0.00116	0.00124 JT	0.00272 JV
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	total	XAD Column+Filter	pg/L	19	19	100	0.0000541 JT	0.00301 JT	W027	0.00121	0.00131 JT	0.00278 JV	0.0000541 JT	0.00301 JT	W027	0.00121	0.00131 JT	0.00278 JV
Pesticides																		
Aldrin	total	XAD Column	µg/L	19	19	100	1.24E-06 J	4.67E-06 J	W025M	2.32E-06	2.06E-06 J	3.29E-06 JV	1.24E-06 J	4.67E-06 J	W025M	2.32E-06	2.06E-06 J	3.29E-06 JV
Aldrin	total	XAD Filter	µg/L	19	17	89.5	4.15E-07 J	1.97E-06 J	W023	0.0000011	9.43E-07 J	1.92E-06 JV	4.15E-07 J	1.97E-06 J	W023	1.01E-06	9.17E-07 J	1.92E-06 JV
Aldrin	total	XAD Column+Filter	µg/L	19	19	100	1.24E-06 J	5.99E-06 J	W025M	3.31E-06	3.33E-06 J	4.87E-06 JV	1.24E-06 J	5.99E-06 J	W025M	3.31E-06	3.33E-06 J	4.87E-06 JV
Dieldrin	total	XAD Column	µg/L	19	19	100	0.0000632	0.00033	W005	0.000142	0.000126	0.000305 V	0.0000632	0.00033	W005	0.000142	0.000126	0.000305 V
Dieldrin	total	XAD Filter	µg/L	19	18	94.7	6.12E-06 J	0.0000537	W005	0.0000205	0.0000176 JV	0.0000514 V	6.12E-06 J	0.0000537	W005	0.0000196	0.0000175 J	0.0000513 V
Dieldrin	total	XAD Column+Filter	µg/L	19	19	100	0.0000705 J	0.000384	W005	0.000162	0.000144 J	0.000356 V	0.0000705 J	0.000384	W005	0.000162	0.000144 J	0.000356 V
gamma-Hexachlorocyclohexane	total	XAD Column	µg/L	19	19	100	5.73E-06 J	0.0000194 J	W023	0.0000138	0.0000151 J	0.0000186 JV	5.73E-06 J	0.0000194 J	W023	0.0000138	0.0000151 J	0.0000186 JV
gamma-Hexachlorocyclohexane	total	XAD Filter	µg/L	19	13	68.4	2.05E-07 J	1.19E-06 J	W023E	4.41E-07	3.73E-07 J	8.22E-07 JV	2.05E-07 J	1.97E-06 U	W024	3.96E-07	3.59E-07 J	1.01E-06 JV
gamma-Hexachlorocyclohexane	total	XAD Column+Filter	µg/L	19	19	100	5.73E-06 J	0.0000194 J	W023	0.0000141	0.0000155 J	0.0000186 JV	5.73E-06 J	0.0000194 J	W023	0.0000141	0.0000155 J	0.0000186 JV
Total Chlordanes	total	XAD Column	µg/L	19	19	100	0.0000265 JT	0.0000557 JT	W005	0.0000391	0.0000378 JT	0.000054 JV	0.0000265 JT	0.0000557 JT	W005	0.0000391	0.0000378 JT	0.000054 JV
Total Chlordanes	total	XAD Filter	µg/L	19	19	100	2.91E-06 JT	0.0000434 JT	W023E	0.0000225	0.0000253 JT	0.0000408 JV	2.91E-06 JT	0.0000434 JT	W023E	0.0000225	0.0000253 JT	0.0000408 JV
Total Chlordanes	total	XAD Column+Filter	µg/L	19	19	100	0.0000336 JT	0.0000943 JT	W005	0.0000616	0.0000663 JT	0.0000914 JV	0.0000336 JT	0.0000943 JT	W005	0.0000616	0.0000663 JT	0.0000914 JV
Total of 2,4' and 4,4'-DDD	total	XAD Column	µg/L	19	19	100	0.0000157 JT	0.0000444 JT	W024	0.0000333	0.0000345 JT	0.0000418 JV	0.0000157 JT	0.0000444 JT	W024	0.0000333	0.0000345 JT	0.0000418 JV
Total of 2,4' and 4,4'-DDD	total	XAD Filter	µg/L	19	19	100	6.43E-06 JT	0.0000837 JT	W023E	0.0000417	0.0000398 JT	0.0000706 JV	6.43E-06 JT	0.0000837 JT	W023E	0.0000417	0.0000398 JT	0.0000706 JV
Total of 2,4' and 4,4'-DDD	total	XAD Column+Filter	µg/L	19	19	100	0.0000373 JT	0.000123 JT	W023E	0.000075	0.0000736 JT	0.000109 JV	0.0000373 JT	0.000123 JT	W023E	0.000075	0.0000736 JT	0.000109 JV

Table 5.3-2. Summary Statistics for Total Suspended Solids and Indicator Chemicals in Surface Water, High-Flow Events - Transect Locations.

							Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Fraction	Method	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	total	XAD Column	µg/L	19	19	100	0.0000959 JT	0.00021 JT	W024	0.000152	0.000154 JT	0.000201 JV	0.0000959 JT	0.00021 JT	W024	0.000152	0.000154 JT	0.000201 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	total	XAD Filter	µg/L	19	19	100	0.0000296 JT	0.000436 JT	W023E	0.000274	0.000323 JT	0.00043 JV	0.0000296 JT	0.000436 JT	W023E	0.000274	0.000323 JT	0.00043 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	total	XAD Column+Filter	µg/L	19	19	100	0.000162 JT	0.000618 JT	W023E	0.000426	0.000471 JT	0.000601 JV	0.000162 JT	0.000618 JT	W023E	0.000426	0.000471 JT	0.000601 JV
Total of 2,4' and 4,4'-DDE	total	XAD Column	µg/L	19	19	100	0.0000351 T	0.0000655 JT	W005	0.0000522	0.0000546 T	0.0000653 JV	0.0000351 T	0.0000655 JT	W005	0.0000522	0.0000546 T	0.0000653 JV
Total of 2,4' and 4,4'-DDE	total	XAD Filter	µg/L	19	18	94.7	0.0000386 JT	0.000142 JT	W023E	0.0000962	0.00011 JV	0.000139 JV	0.0000133 UT	0.000142 JT	W023E	0.0000915	0.000107 JT	0.000139 JV
Total of 2,4' and 4,4'-DDE	total	XAD Column+Filter	µg/L	19	19	100	0.00004 JT	0.000204 JT	W005	0.000143	0.000163 JT	0.000204 JV	0.00004 JT	0.000204 JT	W005	0.000143	0.000163 JT	0.000204 JV
Total of 2,4' and 4,4'-DDT	total	XAD Column	µg/L	19	19	100	0.0000288 JT	0.00011 JT	W024	0.0000663	0.0000678 JT	0.0000943 JV	0.0000288 JT	0.00011 JT	W024	0.0000663	0.0000678 JT	0.0000943 JV
Total of 2,4' and 4,4'-DDT	total	XAD Filter	µg/L	19	19	100	0.0000232 JT	0.000264 JT	W023	0.000141	0.000152 JT	0.000242 JV	0.0000232 JT	0.000264 JT	W023	0.000141	0.000152 JT	0.000242 JV
Total of 2,4' and 4,4'-DDT	total	XAD Column+Filter	µg/L	19	19	100	0.0000846 JT	0.000342 JT	W023	0.000207	0.000222 JT	0.000329 JV	0.0000846 JT	0.000342 JT	W023	0.000207	0.000222 JT	0.000329 JV
Polycyclic Aromatic Hydrocarbons																		
Benzo(a)pyrene	total	Peristaltic	µg/L	20	0	0	--	--	--	--	--	--	0.0016 U	0.0086 U	W005; W011; W023E; W023M; W023W; W024; W025E; W025M; W025W; W027	0.0036	0.0043 UV	0.0043 UV
Benzo(a)pyrene	total	XAD Column	µg/L	19	7	36.8	0.000023 J	0.000061 J	W005	0.0000338	0.0000236 J	0.0000569 JV	0.0000123 U	0.0000915 U	W024	0.0000276	0.0000234 J	0.0000486 JV
Benzo(a)pyrene	total	XAD Filter	µg/L	19	15	78.9	0.00017 J	0.000822	W005	0.000378	0.000319 J	0.000637 V	0.000033 U	0.000822	W005	0.00031	0.000311 J	0.000583 V
Benzo(a)pyrene	total	XAD Column+Filter	µg/L	19	15	78.9	0.00017 J	0.000883 J	W005	0.000394	0.00033	0.000671 JV	0.000033 U	0.000883 J	W005	0.000318	0.000311 J	0.00061 JV
High Molecular Weight PAH	total	Peristaltic	µg/L	20	6	30	0.0026 JT	0.0263 JT	W005	0.0121	0.011 JV	0.0245 JV	0.0026 JT	0.0263 JT	W005	0.0073	0.0055 UV	0.0194 JV
High Molecular Weight PAH	total	XAD Column	µg/L	19	19	100	0.000486 JT	0.00439 JT	W005	0.00159	0.00127 JT	0.00289 JV	0.000486 JT	0.00439 JT	W005	0.00159	0.00127 JT	0.00289 JV
High Molecular Weight PAH	total	XAD Filter	µg/L	19	19	100	0.000144 JT	0.00897 JT	W005	0.003	0.00294 JT	0.00582 JV	0.000144 JT	0.00897 JT	W005	0.003	0.00294 JT	0.00582 JV
High Molecular Weight PAH	total	XAD Column+Filter	µg/L	19	19	100	0.000648 JT	0.0134 JT	W005	0.00459	0.00421 JT	0.00813 JV	0.000648 JT	0.0134 JT	W005	0.00459	0.00421 JT	0.00813 JV
Low Molecular Weight PAH	total	Peristaltic	µg/L	20	5	25	0.0072 JT	0.018 T	W024	0.0114	0.0099 JT	0.0172 JV	0.0064 UT	0.018 T	W024	0.00734	0.0065 UV	0.0142 JV
Low Molecular Weight PAH	total	XAD Column	µg/L	19	19	100	0.0046 T	0.0439 T	W005	0.0109	0.00608 T	0.0269 V	0.0046 T	0.0439 T	W005	0.0109	0.00608 T	0.0269 V
Low Molecular Weight PAH	total	XAD Filter	µg/L	19	16	84.2	0.000237 JT	0.0021 JT	W005	0.000986	0.000851 JV	0.00194 JV	0.000207 UT	0.0021 JT	W005	0.000861	0.000793 JT	0.00191 JV
Low Molecular Weight PAH	total	XAD Column+Filter	µg/L	19	19	100	0.00504 JT	0.046 JT	W005	0.0117	0.00709 JT	0.0288 JV	0.00504 JT	0.046 JT	W005	0.0117	0.00709 JT	0.0288 JV
Total BaPEq	total	Peristaltic	µg/L	20	2	10	0.00047 JT	0.00086 JT	W023M	0.000665	0.000665 JV	0.000841 JV	0.00047 JT	0.0086 UT	W005; W011; W023E; W023M; W023W; W024; W025E; W025M; W025W; W027	0.00342	0.0043 UV	0.0043 UV
Total BaPEq	total	XAD Column	µg/L	19	16	84.2	1.24E-07 JT	0.000294 JT	W005	0.0000465	0.0000189 JV	0.000209 JV	1.24E-07 JT	0.000294 JT	W005	0.0000475	0.0000238 JT	0.000192 JV
Total BaPEq	total	XAD Filter	µg/L	19	19	100	5.22E-06 JT	0.00109 JT	W005	0.000387	0.000393 JT	0.000751 JV	5.22E-06 JT	0.00109 JT	W005	0.000387	0.000393 JT	0.000751 JV
Total BaPEq	total	XAD Column+Filter	µg/L	19	19	100	5.22E-06 JT	0.00138 JT	W005	0.000426	0.000393 JT	0.000808 JV	5.22E-06 JT	0.00138 JT	W005	0.000426	0.000393 JT	0.000808 JV
Total cPAHs	total	Peristaltic	µg/L	20	2	10	0.0086 JT	0.0091 JT	W005	0.00885	0.00885 JV	0.00908 JV	0.0021 UT	0.011 UT	W005; W011; W023E; W023M; W023W; W024; W025E; W025M; W025W; W027	0.00517	0.0055 UV	0.00863 JV
Total cPAHs	total	XAD Column	µg/L	19	16	84.2	0.000042 JT	0.0007 JT	W005	0.000246	0.00023 JV	0.000543 JV	0.000042 JT	0.0007 JT	W005	0.000217	0.00016 JT	0.000511 JV
Total cPAHs	total	XAD Filter	µg/L	19	19	100	0.00014 JT	0.0041 JT	W005	0.00183	0.0018 JT	0.00347 JV	0.00014 JT	0.0041 JT	W005	0.00183	0.0018 JT	0.00347 JV
Total cPAHs	total	XAD Column+Filter	µg/L	19	19	100	0.00014 JT	0.0048 JT	W005	0.00204	0.00192 JT	0.00377 JV	0.00014 JT	0.0048 JT	W005	0.00204	0.00192 JT	0.00377 JV
Total PAHs	total	Peristaltic	µg/L	20	8	40	0.0026 JT	0.0362 JT	W005	0.0162	0.0175 JV	0.0305 JV	0.0026 JT	0.0362 JT	W005	0.0103	0.0065 UV	0.0208 JV
Total PAHs	total	XAD Column	µg/L	19	19	100	0.00554 JT	0.0483 JT	W005	0.0125	0.00809 JT	0.0286 JV	0.00554 JT	0.0483 JT	W005	0.0125	0.00809 JT	0.0286 JV
Total PAHs	total	XAD Filter	µg/L	19	19	100	0.000144 JT	0.0111 JT	W005	0.00383	0.00372 JT	0.00723 JV	0.000144 JT	0.0111 JT	W005	0.00383	0.00372 JT	0.00723 JV
Total PAHs	total	XAD Column+Filter	µg/L	19	19	100	0.00568 JT	0.0594 JT	W005	0.0163	0.0115 JT	0.0356 JV	0.00568 JT	0.0594 JT	W005	0.0163	0.0115 JT	0.0356 JV

Table 5.3-2. Summary Statistics for Total Suspended Solids and Indicator Chemicals in Surface Water, High-Flow Events - Transect Locations.

							Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Fraction	Method	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Semivolatile Organic Compounds																		
Hexachlorobenzene	total	Peristaltic	µg/L	20	0	0	--	--	--	--	--	--	0.015 UJ	0.015 UJ	W005; W011; W023; W023E; W023M; W023W; W024; W025E; W025M; W025W; W027	0.0075	0.0075 UV	0.0075 UV
Hexachlorobenzene	total	XAD Column	µg/L	19	19	100	0.0000161 J	0.0000547	W023W	0.0000335	0.0000341	0.0000546 V	0.0000161 J	0.0000547	W023W	0.0000335	0.0000341	0.0000546 V
Hexachlorobenzene	total	XAD Filter	µg/L	19	15	78.9	3.04E-06 J	0.0000107 J	W023	6.21E-06	6.03E-06 J	9.31E-06 JV	2.26E-06 U	0.0000107 J	W023	5.23E-06	0.000005 J	8.91E-06 JV
Hexachlorobenzene	total	XAD Column+Filter	µg/L	19	19	100	0.0000233 J	0.000062 J	W023W	0.0000384	0.0000386 J	0.0000553 JV	0.0000233 J	0.000062 J	W023W	0.0000384	0.0000386 J	0.0000553 JV

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners whenever available regardless of their qualification, except for LWG beach samples where preference is given to Aroclors.

-- data not available.
BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
LWG - Lower Willamette Group
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TEQ - toxic equivalent concentration

Reason codes for qualifiers:
A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

Table 5.3-3. Summary Statistics for Total Suspended Solids and Indicator Chemicals in Surface Water, High-Flow Events - Single-Point Locations.

							Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Fraction	Method	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Conventionals																		
Total suspended solids	total	Peristaltic	mg/L	26	26	100	13	60	W031	21	18 JV	32 V	13	60	W031	21	18 JV	32 V
Total suspended solids w/0.45 µm filter	total	Peristaltic	mg/L	26	26	100	8.4	50	W031	19	19 V	25 V	8.4	50	W031	19	19 V	25 V
Metals																		
Arsenic	dissolved	Peristaltic	µg/L	26	26	100	0.185 J	0.341 J	W034	0.238	0.224 JV	0.293 JV	0.185 J	0.341 J	W034	0.238	0.224 JV	0.293 JV
Arsenic	total	Peristaltic	µg/L	26	26	100	0.3	0.627 J	W034	0.349	0.329 JV	0.454 JV	0.3	0.627 J	W034	0.349	0.329 JV	0.454 JV
Copper	dissolved	Peristaltic	µg/L	26	26	100	0.55	1.22	W035	0.749	0.65 V	1.17 V	0.55	1.22	W035	0.749	0.65 V	1.17 V
Copper	total	Peristaltic	µg/L	26	26	100	1.47	3.49	W031	1.96	1.81 V	2.72 V	1.47	3.49	W031	1.96	1.81 V	2.72 V
Lead	dissolved	Peristaltic	µg/L	26	18	69.2	0.008 J	0.142	W034	0.0637	0.0705 V	0.121 V	0.008 J	0.142	W034	0.0462	0.0193 JV	0.116 V
Lead	total	Peristaltic	µg/L	26	26	100	0.305	1.13	W031	0.426	0.388 V	0.56 V	0.305	1.13	W031	0.426	0.388 V	0.56 V
Zinc	dissolved	Peristaltic	µg/L	26	0	0	–	–	–	–	–	–	0.5 U	4 U	W038	0.94	0.95 UV	1.8 UV
Zinc	total	Peristaltic	µg/L	26	26	100	3	8.4	W031	4.35	4.08 V	6.28 V	3	8.4	W031	4.35	4.08 V	6.28 V
PCB Congeners																		
Total PCB Congeners	total	XAD Column	pg/L	24	24	100	60.2 JT	285 JT	W028	124	110 JV	249 JV	60.2 JT	285 JT	W028	124	110 JV	249 JV
Total PCB Congeners	total	XAD Filter	pg/L	24	24	100	33.7 JT	496 JT	W035	159	109 JV	460 JV	33.7 JT	496 JT	W035	159	109 JV	460 JV
Total PCB Congeners	total	XAD Column+Filter	pg/L	24	24	100	111 JT	749 JT	W035	283	213 JV	667 JV	111 JT	749 JT	W035	283	213 JV	667 JV
Total PCBs[c]																		
Total PCBs	total	XAD Column	µg/L	24	24	100	0.0000602 JT	0.000285 JT	W028	0.000124	0.00011 JV	0.000249 JV	0.0000602 JT	0.000285 JT	W028	0.000124	0.00011 JV	0.000249 JV
Total PCBs	total	XAD Filter	µg/L	24	24	100	0.0000337 JT	0.000496 JT	W035	0.000159	0.000109 JV	0.00046 JV	0.0000337 JT	0.000496 JT	W035	0.000159	0.000109 JV	0.00046 JV
Total PCBs	total	XAD Column+Filter	µg/L	24	24	100	0.000111 JT	0.000749 JT	W035	0.000283	0.000213 JV	0.000667 JV	0.000111 JT	0.000749 JT	W035	0.000283	0.000213 JV	0.000667 JV
PCDD/F Homologs																		
Total PCDD/F	total	XAD Column	pg/L	6	6	100	1.79 T	5.33 T	W033	3.98	4.39 V	5.3 V	1.79 T	5.33 T	W033	3.98	4.39 V	5.3 V
Total PCDD/F	total	XAD Filter	pg/L	6	6	100	19.6 T	70.7 JT	W035	40.1	27.7 V	70.5 JV	19.6 T	70.7 JT	W035	40.1	27.7 V	70.5 JV
Total PCDD/F	total	XAD Column+Filter	pg/L	6	6	100	24.7 T	74.9 T	W035	44	31.8 V	74.8 JV	24.7 T	74.9 T	W035	44	31.8 V	74.8 JV
PCDD/Fs																		
Dioxin/furan TCDD toxicity equivalent (ND = 0)	total	XAD Column	pg/L	6	6	100	0.00274 T	0.0143 JT	W033	0.00703	0.00659 V	0.0128 JV	0.00274 T	0.0143 JT	W033	0.00703	0.00659 V	0.0128 JV
Dioxin/furan TCDD toxicity equivalent (ND = 0)	total	XAD Filter	pg/L	6	6	100	0.0437 JT	0.162 JT	W035	0.089	0.071 JV	0.157 JV	0.0437 JT	0.162 JT	W035	0.089	0.071 JV	0.157 JV
Dioxin/furan TCDD toxicity equivalent (ND = 0)	total	XAD Column+Filter	pg/L	6	6	100	0.0491 JT	0.168 JT	W035	0.096	0.0795 JV	0.163 JV	0.0491 JT	0.168 JT	W035	0.096	0.0795 JV	0.163 JV
Total PCB TEQ																		
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	total	XAD Column	pg/L	24	24	100	0.0000568 JT	0.00189 JT	W035	0.000203	0.0000726 JV	0.00096 JV	0.0000568 JT	0.00189 JT	W035	0.000203	0.0000726 JV	0.00096 JV
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	total	XAD Filter	pg/L	24	24	100	0.0000491 JT	0.00631 T	W031	0.00079	0.00022 V	0.00376 JV	0.0000491 JT	0.00631 T	W031	0.00079	0.00022 V	0.00376 JV
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	total	XAD Column+Filter	pg/L	24	24	100	0.000108 JT	0.00638 JT	W031	0.000993	0.000296 JV	0.00391 JV	0.000108 JT	0.00638 JT	W031	0.000993	0.000296 JV	0.00391 JV
Pesticides																		
Aldrin	total	Peristaltic	µg/L	14	1	7.14	0.0052	0.0052	W030	0.0052	0.0052	0.0052	0.00048 U	0.0058 U	W030	0.000953	0.000385 UV	0.00371 V
Aldrin	total	XAD Column	µg/L	10	6	60	1.74E-06 J	2.59E-06 J	W033	2.13E-06	2.07E-06 JV	2.57E-06 JV	1.74E-06 J	2.83E-06 U	W031	1.74E-06	1.78E-06 JV	2.55E-06 JV
Aldrin	total	XAD Filter	µg/L	10	7	70	5.14E-07 J	1.48E-06 J	W033	9.38E-07	1.01E-06 J	0.0000014 JV	5.14E-07 J	1.48E-06 J	W033	8.12E-07	6.9E-07 JV	1.35E-06 JV
Aldrin	total	XAD Column+Filter	µg/L	10	8	80	5.14E-07 J	4.07E-06 J	W033	2.42E-06	2.44E-06 JV	3.88E-06 JV	5.14E-07 J	4.07E-06 J	W033	2.02E-06	0.0000023 JV	3.82E-06 JV
Dieldrin	total	Peristaltic	µg/L	14	3	21.4	0.001 NJ	0.0012 NJ	W028; W036	0.00113	0.0012 NJ	0.0012 JV	0.0004 UJ	0.0012 NJ	W028; W036	0.0004	0.0002 UV	0.0012 JV
Dieldrin	total	XAD Column	µg/L	10	10	100	0.0000985	0.000158	W033	0.000117	0.000113 V	0.000155 V	0.0000985	0.000158	W033	0.000117	0.000113 V	0.000155 V
Dieldrin	total	XAD Filter	µg/L	10	10	100	8.67E-06 J	0.0000324	W033	0.0000155	0.0000114 JV	0.000031 V	8.67E-06 J	0.0000324	W033	0.0000155	0.0000114 JV	0.000031 V
Dieldrin	total	XAD Column+Filter	µg/L	10	10	100	0.000108 J	0.00019	W033	0.000133	0.000124 JV	0.000186 V	0.000108 J	0.00019	W033	0.000133	0.000124 JV	0.000186 V
gamma-Hexachlorocyclohexane	total	Peristaltic	µg/L	14	1	7.14	0.0019	0.0019	W026	0.0019	0.0019	0.0019	0.000092 U	0.0019	W026	0.000299	0.000153 UV	0.000961 V
gamma-Hexachlorocyclohexane	total	XAD Column	µg/L	10	10	100	0.0000118 J	0.0000217 J	W031	0.000017	0.0000169 JV	0.0000215 JV	0.0000118 J	0.0000217 J	W031	0.000017	0.0000169 JV	0.0000215 JV
gamma-Hexachlorocyclohexane	total	XAD Filter	µg/L	10	4	40	3.14E-07 J	7.46E-07 J	W033	4.75E-07	4.2E-07 JV	7.05E-07 JV	3.14E-07 J	3.55E-06 U	W034	6.55E-07	4.2E-07 JV	1.77E-06 UV
gamma-Hexachlorocyclohexane	total	XAD Column+Filter	µg/L	10	10	100	0.0000123 J	0.0000217 J	W031	0.0000172	0.0000169 JV	0.0000216 JV	0.0000123 J	0.0000217 J	W031	0.0000172	0.0000169 JV	0.0000216 JV

Table 5.3-3. Summary Statistics for Total Suspended Solids and Indicator Chemicals in Surface Water, High-Flow Events - Single-Point Locations.

							Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Fraction	Method	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Total Chlordanes	total	Peristaltic	µg/L	14	3	21.4	0.00029 JT	0.0006 NJT	W030	0.000467	0.00051 T	0.000591 JV	0.00029 JT	0.00073 UT	W026; W028; W029; W036; W037; W038	0.000387	0.000365 UV	0.000542 JV
Total Chlordanes	total	XAD Column	µg/L	10	10	100	0.0000332 JT	0.0000495 JT	W033	0.000039	0.0000365 JV	0.0000477 JV	0.0000332 JT	0.0000495 JT	W033	0.000039	0.0000365 JV	0.0000477 JV
Total Chlordanes	total	XAD Filter	µg/L	10	10	100	0.0000115 JT	0.0000393 JT	W031	0.000022	0.0000176 JV	0.000038 JV	0.0000115 JT	0.0000393 JT	W031	0.000022	0.0000176 JV	0.000038 JV
Total Chlordanes	total	XAD Column+Filter	µg/L	10	10	100	0.0000466 JT	0.0000859 JT	W033	0.000061	0.0000524 JV	0.0000848 JV	0.0000466 JT	0.0000859 JT	W033	0.000061	0.0000524 JV	0.0000848 JV
Total of 2,4' and 4,4'-DDD	total	Peristaltic	µg/L	14	8	57.1	0.00024 NJT	0.00052 NJT	W029	0.000318	0.0003 JV	0.000457 JV	0.00024 NJT	0.00094 UT	W028; W030; W038	0.000383	0.000405 JV	0.000488 JV
Total of 2,4' and 4,4'-DDD	total	XAD Column	µg/L	10	10	100	0.0000296 JT	0.000137 T	W031	0.0000555	0.000037 JV	0.000124 V	0.0000296 JT	0.000137 T	W031	0.0000555	0.000037 JV	0.000124 V
Total of 2,4' and 4,4'-DDD	total	XAD Filter	µg/L	10	10	100	0.0000256 JT	0.000285 T	W031	0.0000745	0.0000448 JV	0.000205 JV	0.0000256 JT	0.000285 T	W031	0.0000745	0.0000448 JV	0.000205 JV
Total of 2,4' and 4,4'-DDD	total	XAD Column+Filter	µg/L	10	10	100	0.0000552 JT	0.000422 T	W031	0.00013	0.0000818 JV	0.00031 JV	0.0000552 JT	0.000422 T	W031	0.00013	0.0000818 JV	0.00031 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	total	Peristaltic	µg/L	14	12	85.7	0.00017 JT	0.00205 NJT	W037	0.000573	0.000435 JV	0.00145 JV	0.00017 JT	0.00205 NJT	W037	0.000558	0.00047 UV	0.00134 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	total	XAD Column	µg/L	10	10	100	0.000105 JT	0.000287 JT	W031	0.000167	0.000132 JV	0.000277 JV	0.000105 JT	0.000287 JT	W031	0.000167	0.000132 JV	0.000277 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	total	XAD Filter	µg/L	10	10	100	0.000153 JT	0.00057 JT	W031	0.000262	0.000193 JV	0.000501 JV	0.000153 JT	0.00057 JT	W031	0.000262	0.000193 JV	0.000501 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	total	XAD Column+Filter	µg/L	10	10	100	0.000266 JT	0.000857 JT	W031	0.000429	0.000316 JV	0.000752 JV	0.000266 JT	0.000857 JT	W031	0.000429	0.000316 JV	0.000752 JV
Total of 2,4' and 4,4'-DDE	total	Peristaltic	µg/L	14	10	71.4	0.00017 JT	0.00049 NJT	W037	0.000283	0.000225 JV	0.000468 JV	0.00017 JT	0.00049 NJT	W037	0.000238	0.0002 JV	0.000458 JV
Total of 2,4' and 4,4'-DDE	total	XAD Column	µg/L	10	10	100	0.0000365 JT	0.0000732 JT	W033	0.0000527	0.0000453 JV	0.0000721 JV	0.0000365 JT	0.0000732 JT	W033	0.0000527	0.0000453 JV	0.0000721 JV
Total of 2,4' and 4,4'-DDE	total	XAD Filter	µg/L	10	10	100	0.0000479 JT	0.000173 JT	W031	0.0000856	0.0000608 JV	0.000161 JV	0.0000479 JT	0.000173 JT	W031	0.0000856	0.0000608 JV	0.000161 JV
Total of 2,4' and 4,4'-DDE	total	XAD Column+Filter	µg/L	10	10	100	0.0000901 JT	0.000242 JT	W031	0.000138	0.000102 JV	0.000232 JV	0.0000901 JT	0.000242 JT	W031	0.000138	0.000102 JV	0.000232 JV
Total of 2,4' and 4,4'-DDT	total	Peristaltic	µg/L	14	1	7.14	0.0015 NJT	0.0015 NJT	W037	0.0015	0.0015 NJT	0.0015 NJT	0.00033 UT	0.0015 NJT	W037	0.000327	0.00024 UV	0.000883 JV
Total of 2,4' and 4,4'-DDT	total	XAD Column	µg/L	10	10	100	0.0000343 JT	0.0000902 JT	W031	0.0000583	0.0000554 JV	0.0000859 JV	0.0000343 JT	0.0000902 JT	W031	0.0000583	0.0000554 JV	0.0000859 JV
Total of 2,4' and 4,4'-DDT	total	XAD Filter	µg/L	10	10	100	0.0000662 JT	0.000162 JT	W033	0.000102	0.0000961 JV	0.000151 JV	0.0000662 JT	0.000162 JT	W033	0.000102	0.0000961 JV	0.000151 JV
Total of 2,4' and 4,4'-DDT	total	XAD Column+Filter	µg/L	10	10	100	0.000109 JT	0.000235 JT	W033	0.000161	0.000148 JV	0.000224 JV	0.000109 JT	0.000235 JT	W033	0.000161	0.000148 JV	0.000224 JV
Polycyclic Aromatic Hydrocarbons																		
Benzo(a)pyrene	total	Peristaltic	µg/L	26	1	3.85	0.19	0.19	W031	0.19	0.19	0.19	0.0043 U	0.19	W031	0.0114	0.0043 UV	0.0043 UV
Benzo(a)pyrene	total	XAD Column	µg/L	6	6	100	0.0000321 J	0.000349	W035	0.000123	0.0000462 JV	0.000319 JV	0.0000321 J	0.000349	W035	0.000123	0.0000462 JV	0.000319 JV
Benzo(a)pyrene	total	XAD Filter	µg/L	6	6	100	0.000257 J	0.00567	W035	0.0018	0.00054 JV	0.00512 V	0.000257 J	0.00567	W035	0.0018	0.00054 JV	0.00512 V
Benzo(a)pyrene	total	XAD Column+Filter	µg/L	6	6	100	0.0003 J	0.00602	W035	0.00192	0.000574 JV	0.00543 JV	0.0003 J	0.00602	W035	0.00192	0.000574 JV	0.00543 JV
High Molecular Weight PAH	total	Peristaltic	µg/L	26	6	23.1	0.011 JT	3.5 T	W031	0.619	0.0495 JV	2.65 JV	0.0053 UT	3.5 T	W031	0.147	0.0055 UV	0.0855 JV
High Molecular Weight PAH	total	XAD Column	µg/L	6	6	100	0.00178 JT	0.0135 JT	W035	0.00499	0.0019 JV	0.0124 JV	0.00178 JT	0.0135 JT	W035	0.00499	0.0019 JV	0.0124 JV
High Molecular Weight PAH	total	XAD Filter	µg/L	6	6	100	0.00269 JT	0.0685 T	W035	0.0208	0.00496 JV	0.0615 V	0.00269 JT	0.0685 T	W035	0.0208	0.00496 JV	0.0615 V
High Molecular Weight PAH	total	XAD Column+Filter	µg/L	6	6	100	0.00447 JT	0.082 JT	W035	0.0258	0.00681 JV	0.0739 JV	0.00447 JT	0.082 JT	W035	0.0258	0.00681 JV	0.0739 JV
Low Molecular Weight PAH	total	Peristaltic	µg/L	26	8	30.8	0.0047 JT	3.9 T	W031	0.537	0.035 JV	2.62 JV	0.0047 JT	3.9 T	W031	0.17	0.0065 UV	0.195 JV
Low Molecular Weight PAH	total	XAD Column	µg/L	6	6	100	0.00416 T	0.00705 T	W032	0.00528	0.00471 V	0.00699 V	0.00416 T	0.00705 T	W032	0.00528	0.00471 V	0.00699 V
Low Molecular Weight PAH	total	XAD Filter	µg/L	6	6	100	0.000473 JT	0.0178 JT	W035	0.00531	0.00109 JV	0.016 JV	0.000473 JT	0.0178 JT	W035	0.00531	0.00109 JV	0.016 JV
Low Molecular Weight PAH	total	XAD Column+Filter	µg/L	6	6	100	0.00524 JT	0.0246 JT	W035	0.0106	0.00643 JV	0.0223 JV	0.00524 JT	0.0246 JT	W035	0.0106	0.00643 JV	0.0223 JV
Total BaPEq	total	Peristaltic	µg/L	26	4	15.4	0.00069 JT	0.268 T	W031	0.0677	0.00109 JV	0.228 JV	0.00069 JT	0.268 T	W031	0.014	0.0043 UV	0.0043 UV
Total BaPEq	total	XAD Column	µg/L	6	6	100	0.0000384 JT	0.00046 JT	W035	0.00016	0.0000553 JV	0.000421 JV	0.0000384 JT	0.00046 JT	W035	0.00016	0.0000553 JV	0.000421 JV
Total BaPEq	total	XAD Filter	µg/L	6	6	100	0.000387 JT	0.00809 T	W035	0.00253	0.000688 JV	0.00729 V	0.000387 JT	0.00809 T	W035	0.00253	0.000688 JV	0.00729 V
Total BaPEq	total	XAD Column+Filter	µg/L	6	6	100	0.000441 JT	0.00855 JT	W035	0.00269	0.00073 JV	0.00771 JV	0.000441 JT	0.00855 JT	W035	0.00269	0.00073 JV	0.00771 JV
Total cPAHs	total	Peristaltic	µg/L	26	4	15.4	0.0069 JT	1.2 T	W031	0.314	0.024 JV	1.02 JV	0.0053 UT	1.2 T	W031	0.0528	0.0055 UV	0.0255 JV
Total cPAHs	total	XAD Column	µg/L	6	6	100	0.00016 JT	0.0031 JT	W035	0.00105	0.00034 JV	0.00285 JV	0.00016 JT	0.0031 JT	W035	0.00105	0.00034 JV	0.00285 JV
Total cPAHs	total	XAD Filter	µg/L	6	6	100	0.0018 JT	0.035 T	W035	0.011	0.0031 JV	0.0315 V	0.0018 JT	0.035 T	W035	0.011	0.0031 JV	0.0315 V
Total cPAHs	total	XAD Column+Filter	µg/L	6	6	100	0.00215 JT	0.0381 JT	W035	0.0121	0.00332 JV	0.0344 JV	0.00215 JT	0.0381 JT	W035	0.0121	0.00332 JV	0.0344 JV
Total PAHs	total	Peristaltic	µg/L	26	9	34.6	0.0047 JT	7.4 T	W031	0.89	0.058 JT	4.55 JV	0.0047 JT	7.4 T	W031	0.312	0.0065 UV	0.23 JV
Total PAHs	total	XAD Column	µg/L	6	6	100	0.00606 JT	0.0204 JT	W035	0.0103	0.00747 JV	0.0189 JV	0.00606 JT	0.0204 JT	W035	0.0103	0.00747 JV	0.0189 JV
Total PAHs	total	XAD Filter	µg/L	6	6	100	0.00316 JT	0.0863 JT	W035	0.0261	0.00601 JV	0.0775 JV	0.00316 JT	0.0863 JT	W035	0.0261	0.00601 JV	0.0775 JV

Table 5.3-3. Summary Statistics for Total Suspended Solids and Indicator Chemicals in Surface Water, High-Flow Events - Single-Point Locations.

							Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Fraction	Method	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Semivolatile Organic Compounds																		
Hexachlorobenzene	total	Peristaltic	µg/L	26	5	19.2	0.00037 J	0.00067 J	W036	0.000504	0.00049 J	0.000658 JV	0.000014 U	0.015 U	W026; W028; W029; W030; W031; W032; W033; W034; W035; W036; W038	0.00587	0.0075 UV	0.0075 UV
Hexachlorobenzene	total	XAD Column	µg/L	10	10	100	0.0000347 J	0.0000422	W032	0.0000375	0.0000365 JV	0.0000413 V	0.0000347 J	0.0000422	W032	0.0000375	0.0000365 JV	0.0000413 V
Hexachlorobenzene	total	XAD Filter	µg/L	10	10	100	3.14E-06 J	0.0000199 J	W031	7.18E-06	0.000006 JV	0.000015 JV	3.14E-06 J	0.0000199 J	W031	7.18E-06	0.000006 JV	0.000015 JV
Hexachlorobenzene	total	XAD Column+Filter	µg/L	10	10	100	0.0000393 J	0.0000559 J	W031	0.0000447	0.000043 JV	0.0000528 JV	0.0000393 J	0.0000559 J	W031	0.0000447	0.000043 JV	0.0000528 JV

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners whenever available regardless of their qualification, except for LWG beach samples where preference is given to Aroclors.

-- data not available.
BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
LWG - Lower Willamette Group
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TEQ - toxic equivalent concentration

Reason codes for qualifiers:
A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

Table 5.3-4. Summary Statistics for Total Suspended Solids and Indicator Chemicals in Surface Water, Low-Flow Events - Transect Locations.

							Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Fraction	Method	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Conventionals																		
Total suspended solids	total	Peristaltic	mg/L	23	21	91	3 T	25 J	W011	8.8	7	17 J	1 U	25 J	W011	8.2	6.5 T	17 JV
Metals																		
Arsenic	dissolved	Peristaltic	µg/L	23	20	87	0.19	0.6	W025M	0.419	0.43 V	0.581 V	0.19	0.6	W025M	0.39	0.402	0.574 V
Arsenic	total	Peristaltic	µg/L	23	23	100	0.349 T	0.64 T	W025E	0.474	0.46	0.605 V	0.349 T	0.64 T	W025E	0.474	0.46	0.605 V
Copper	dissolved	Peristaltic	µg/L	23	23	100	0.45	0.83 J	W011	0.68	0.68	0.82 V	0.45	0.83 J	W011	0.68	0.68	0.82 V
Copper	total	Peristaltic	µg/L	23	23	100	0.68	1.55	W005	1.05	1.06	1.41 JV	0.68	1.55	W005	1.05	1.06	1.41 JV
Lead	dissolved	Peristaltic	µg/L	23	11	47.8	0.011 J	0.031 J	W005	0.0212	0.02	0.0305 JV	0.011 J	0.031 J	W005	0.0154	0.0115 U	0.03 V
Lead	total	Peristaltic	µg/L	23	23	100	0.086	0.339	W005	0.168	0.141	0.267 V	0.086	0.339	W005	0.168	0.141	0.267 V
Zinc	dissolved	Peristaltic	µg/L	23	9	39.1	1.4	2.2	W023	1.75	1.75	2.19 V	1.4	7.4 U	W025W	1.48	1.35 U	2.2 V
Zinc	total	Peristaltic	µg/L	23	23	100	2.1	6.1	W023W	3.07	2.83	4.47 V	2.1	6.1	W023W	3.07	2.83	4.47 V
PCB Aroclors																		
Aroclors	total	Peristaltic	µg/L	3	0	0	--	--	--	--	--	--	0.0025 UT	0.0026 UT	W005	0.00127	0.00125 UT	0.0013 UV
PCB Congeners																		
Total PCB Congeners	total	XAD Column	pg/L	23	23	100	42.4 JT	472 JT	W005	283	280 JT	465 JV	42.4 JT	472 JT	W005	283	280 JT	465 JV
Total PCB Congeners	total	XAD Filter	pg/L	23	23	100	13.5 JT	663 JT	W023E	205	171 JT	561 JV	13.5 JT	663 JT	W023E	205	171 JT	561 JV
Total PCB Congeners	total	XAD Column+Filter	pg/L	23	23	100	159 JT	950 JT	W005; W023E	488	432 JT	950 JV	159 JT	950 JT	W005; W023E	488	432 JT	950 JV
Total PCBs[c]																		
Total PCBs	total	Peristaltic	µg/L	3	0	0	--	--	--	--	--	--	0.0025 UT	0.0026 UT	W005	0.00127	0.00125 UT	0.0013 UV
Total PCBs	total	XAD Column	µg/L	23	23	100	4.24E-05 JT	0.000472 JT	W005	0.000283	0.00028 JT	0.000465 JV	4.24E-05 JT	0.000472 JT	W005	0.000283	0.00028 JT	0.000465 JV
Total PCBs	total	XAD Filter	µg/L	23	23	100	1.35E-05 JT	0.000663 JT	W023E	0.000205	0.000171 JT	0.000561 JV	1.35E-05 JT	0.000663 JT	W023E	0.000205	0.000171 JT	0.000561 JV
Total PCBs	total	XAD Column+Filter	µg/L	23	23	100	0.000159 JT	0.00095 JT	W005; W023E	0.000488	0.000432 JT	0.00095 JV	0.000159 JT	0.00095 JT	W005; W023E	0.000488	0.000432 JT	0.00095 JV
PCDD/F Homologs																		
Total PCDD/F	total	XAD Column	pg/L	23	23	100	0.49 T	5.83 JT	W023W	2.24	1.86 JT	4.03 JV	0.49 T	5.83 JT	W023W	2.24	1.86 JT	4.03 JV
Total PCDD/F	total	XAD Filter	pg/L	23	23	100	2.17 JT	50.7 T	W005	21.4	22.8 T	49.1 V	2.17 JT	50.7 T	W005	21.4	22.8 T	49.1 V
Total PCDD/F	total	XAD Column+Filter	pg/L	23	23	100	5.9 JT	51.6 JT	W005	23.6	23.9 T	51.3 V	5.9 JT	51.6 JT	W005	23.6	23.9 T	51.3 V
PCDD/Fs																		
Dioxin/furan TCDD toxicity equivalent (ND = 0)	total	XAD Column	pg/L	23	23	100	0.000558 T	0.0214 JT	W025M	0.00754	0.0051 JT	0.017 JV	0.000558 T	0.0214 JT	W025M	0.00754	0.0051 JT	0.017 JV
Dioxin/furan TCDD toxicity equivalent (ND = 0)	total	XAD Filter	pg/L	23	23	100	0.00419 JT	0.317 JT	W005	0.0725	0.0589 JT	0.19 JV	0.00419 JT	0.317 JT	W005	0.0725	0.0589 JT	0.19 JV
Dioxin/furan TCDD toxicity equivalent (ND = 0)	total	XAD Column+Filter	pg/L	23	23	100	0.0181 JT	0.327 JT	W005	0.08	0.0643 JT	0.193 JV	0.0181 JT	0.327 JT	W005	0.08	0.0643 JT	0.193 JV
Total PCB TEQ																		
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	total	XAD Column	pg/L	23	23	100	4.16E-05 JT	0.00203 JT	W025E	0.000542	0.00024 JT	0.00182 JV	4.16E-05 JT	0.00203 JT	W025E	0.000542	0.00024 JT	0.00182 JV
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	total	XAD Filter	pg/L	23	23	100	2.33E-05 JT	0.00622 T	W011	0.00186	0.00119 JT	0.00492 V	2.33E-05 JT	0.00622 T	W011	0.00186	0.00119 JT	0.00492 V
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	total	XAD Column+Filter	pg/L	23	23	100	0.000167 JT	0.00647 T	W011	0.0024	0.00236 JT	0.00531 JV	0.000167 JT	0.00647 T	W011	0.0024	0.00236 JT	0.00531 JV
Pesticides																		
Aldrin	total	XAD Column	µg/L	23	20	87	6.46E-07 J	4.46E-06 J	W005	2.27E-06	2.19E-06 JV	4.11E-06 JV	3.41E-07 UJ	4.46E-06 J	W005	2.03E-06	1.98E-06 J	4.01E-06 JV
Aldrin	total	XAD Filter	µg/L	23	16	69.6	1.07E-07 J	2.24E-06 J	W011	8.03E-07	5.5E-07 JV	2.18E-06 JV	1.07E-07 J	5.26E-06 U	W025E	7.37E-07	4.51E-07 J	2.23E-06 JV
Aldrin	total	XAD Column+Filter	µg/L	23	21	91.3	2.96E-07 J	6.62E-06 J	W005	2.78E-06	2.74E-06 J	5.05E-06 J	2.72E-07 UJ	6.62E-06 J	W005	2.55E-06	2.31E-06 J	5.01E-06 JV
Dieldrin	total	XAD Column	µg/L	23	23	100	1.43E-05	4.44E-05	W011	3.75E-05	3.92E-05	4.42E-05 V	1.43E-05	4.44E-05	W011	3.75E-05	3.92E-05	4.42E-05 V
Dieldrin	total	XAD Filter	µg/L	23	13	56.5	9.89E-07 J	5.26E-06 J	W005	2.65E-06	2.43E-06 J	5.14E-06 JV	1.92E-07 UJ	5.26E-06 J	W005	1.93E-06	1.87E-06 U	4.9E-06 JV
Dieldrin	total	XAD Column+Filter	µg/L	23	23	100	1.67E-05 J	4.87E-05 J	W005	0.000039	4.05E-05 J	4.69E-05 JV	1.67E-05 J	4.87E-05 J	W005	0.000039	4.05E-05 J	4.69E-05 JV
gamma-Hexachlorocyclohexane	total	XAD Column	µg/L	23	23	100	1.18E-05 J	3.58E-05 J	W023E	2.92E-05	2.94E-05	3.51E-05 JV	1.18E-05 J	3.58E-05 J	W023E	2.92E-05	2.94E-05	3.51E-05 JV
gamma-Hexachlorocyclohexane	total	XAD Filter	µg/L	23	9	39.1	1.09E-07 J	5.01E-07 J	W011	2.76E-07	2.6E-07 J	4.76E-07 JV	1E-08 U	2.14E-06 U	W005	2.1E-07	1.59E-07 U	4.95E-07 JV
gamma-Hexachlorocyclohexane	total	XAD Column+Filter	µg/L	23	23	100	1.18E-05 J	3.58E-05 J	W023E	2.93E-05	2.95E-05 J	3.55E-05 JV	1.18E-05 J	3.58E-05 J	W023E	2.93E-05	2.95E-05 J	3.55E-05 JV
Total Chlordanes	total	XAD Column	µg/L	23	23	100	7.87E-06 JT	4.01E-05 JT	W005	2.53E-05	2.59E-05 JT	3.35E-05 JV	7.87E-06 JT	4.01E-05 JT	W005	2.53E-05	2.59E-05 JT	3.35E-05 JV
Total Chlordanes	total	XAD Filter	µg/L	23	20	87	1.01E-07 JT	1.87E-05 JT	W005	7.5E-06	6.33E-06 JV	1.79E-05 JV	1.01E-07 JT	1.87E-05 JT	W005	7.15E-06	5.68E-06 JT	1.74E-05 JV
Total Chlordanes	total	XAD Column+Filter	µg/L	23	23	100	1.34E-05 JT	5.88E-05 JT	W005	3.18E-05	3.07E-05 JT	4.75E-05 JV	1.34E-05 JT	5.88E-05 JT	W005	3.18E-05	3.07E-05 JT	4.75E-05 JV
Total of 2,4' and 4,4'-DDD	total	XAD Column	µg/L	23	23	100	5.84E-06 JT	0.000253 T	W027	0.000105	5.76E-05 T	0.000248 V	5.84E-06 JT	0.000253 T	W027	0.000105	5.76E-05 T	0.000248 V
Total of 2,4' and 4,4'-DDD	total	XAD Filter	µg/L	23	23	100	6.54E-07 JT	0.000123 T	W005	3.37E-05	1.24E-05 T	0.000118 V	6.54E-07 JT	0.000123 T	W005	3.37E-05	1.24E-05 T	0.000118 V
Total of 2,4' and 4,4'-DDD	total	XAD Column+Filter	µg/L	23	23	100	1.49E-05 JT	0.000356 T	W027	0.000139	9.47E-05 T	0.000334 V	1.49E-05 JT	0.000356 T	W027	0.000139	9.47E-05 T	0.000334 V

Table 5.3-4. Summary Statistics for Total Suspended Solids and Indicator Chemicals in Surface Water, Low-Flow Events - Transect Locations.

							Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Fraction	Method	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	total	XAD Column	µg/L	23	23	100	1.24E-05 JT	0.000311 JT	W027	0.000142	9.49E-05 T	0.000308 JV	1.24E-05 JT	0.000311 JT	W027	0.000142	9.49E-05 T	0.000308 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	total	XAD Filter	µg/L	23	23	100	1.04E-05 JT	0.000274 JT	W005	7.58E-05	3.88E-05 JT	0.000256 JV	1.04E-05 JT	0.000274 JT	W005	7.58E-05	3.88E-05 JT	0.000256 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	total	XAD Column+Filter	µg/L	23	23	100	4.28E-05 JT	0.000546 JT	W005	0.000218	0.000176 JT	0.000496 JV	4.28E-05 JT	0.000546 JT	W005	0.000218	0.000176 JT	0.000496 JV
Total of 2,4' and 4,4'-DDE	total	XAD Column	µg/L	23	23	100	5.13E-06 JT	5.04E-05 JT	W025E	2.91E-05	2.35E-05 JT	4.93E-05 JV	5.13E-06 JT	5.04E-05 JT	W025E	2.91E-05	2.35E-05 JT	4.93E-05 JV
Total of 2,4' and 4,4'-DDE	total	XAD Filter	µg/L	23	23	100	3.14E-06 JT	7.89E-05 JT	W005	2.38E-05	1.72E-05 JT	6.61E-05 JV	3.14E-06 JT	7.89E-05 JT	W005	2.38E-05	1.72E-05 JT	6.61E-05 JV
Total of 2,4' and 4,4'-DDE	total	XAD Column+Filter	µg/L	23	23	100	1.67E-05 JT	0.000126 JT	W005	5.29E-05	4.87E-05 T	0.000104 JV	1.67E-05 JT	0.000126 JT	W005	5.29E-05	4.87E-05 T	0.000104 JV
Total of 2,4' and 4,4'-DDT	total	XAD Column	µg/L	23	23	100	1.45E-06 JT	1.47E-05 T	W011	7.41E-06	7.64E-06 JT	1.27E-05 JV	1.45E-06 JT	1.47E-05 T	W011	7.41E-06	7.64E-06 JT	1.27E-05 JV
Total of 2,4' and 4,4'-DDT	total	XAD Filter	µg/L	23	21	91.3	6.52E-07 JT	7.56E-05 JT	W011	2.02E-05	1.05E-05 JT	7.21E-05 JT	1.8E-07 UT	7.56E-05 JT	W011	1.84E-05	9.72E-06 JT	6.93E-05 JV
Total of 2,4' and 4,4'-DDT	total	XAD Column+Filter	µg/L	23	23	100	3.8E-06 JT	8.46E-05 JT	W005	2.58E-05	1.35E-05 JT	8.01E-05 JV	3.8E-06 JT	8.46E-05 JT	W005	2.58E-05	1.35E-05 JT	8.01E-05 JV
Polycyclic Aromatic Hydrocarbons																		
Benzo(a)pyrene	total	Peristaltic	µg/L	23	0	0	--	--	--	--	--	--	0.0032 U	0.0086 U	W005; W011; W023E; W023M; W023W; W024; W025E; W025M; W025W; W027	0.00338	0.0043 U	0.0043 UV
Benzo(a)pyrene	total	XAD Column	µg/L	23	10	43.5	2.63E-05 J	0.000125 J	W011	6.56E-05	6.67E-05 JV	0.000112 JV	2.63E-05 J	0.000135 U	W005	4.84E-05	3.59E-05 U	9.43E-05 JV
Benzo(a)pyrene	total	XAD Filter	µg/L	23	18	78.3	0.000098 J	0.00322	W005	0.000917	0.000701 V	0.00268 V	0.000068 U	0.00322	W005	0.000738	0.000511	0.00251 V
Benzo(a)pyrene	total	XAD Column+Filter	µg/L	23	21	91.3	2.63E-05 J	0.00331 J	W005	0.000818	0.00059 J	0.00259	2.63E-05 J	0.00331 J	W005	0.000749	0.000511	0.00251 JV
High Molecular Weight PAH	total	Peristaltic	µg/L	23	14	60.9	0.01 JT	0.0344 JT	W011	0.0199	0.0167 JV	0.0322 JV	0.0074 UT	0.0344 JT	W011	0.0139	0.013 JT	0.0309 JV
High Molecular Weight PAH	total	XAD Column	µg/L	23	23	100	0.00104 JT	0.022 JT	W027	0.00953	0.00488 JT	0.0216 JV	0.00104 JT	0.022 JT	W027	0.00953	0.00488 JT	0.0216 JV
High Molecular Weight PAH	total	XAD Filter	µg/L	23	23	100	0.000472 JT	0.0338 T	W005	0.00758	0.0045 JT	0.028 JV	0.000472 JT	0.0338 T	W005	0.00758	0.0045 JT	0.028 JV
High Molecular Weight PAH	total	XAD Column+Filter	µg/L	23	23	100	0.00194 JT	0.0539 JT	W005	0.0171	0.0106 JT	0.0401 JV	0.00194 JT	0.0539 JT	W005	0.0171	0.0106 JT	0.0401 JV
Low Molecular Weight PAH	total	Peristaltic	µg/L	23	7	30.4	0.0057 JT	0.015 JT	W027	0.00811	0.0066 JT	0.0132 JV	0.0057 JT	0.047 UT	W011	0.00822	0.0065 UT	0.021 UV
Low Molecular Weight PAH	total	XAD Column	µg/L	23	23	100	0.00103 JT	0.0639 T	W023	0.014	0.00918 T	0.0365 V	0.00103 JT	0.0639 T	W023	0.014	0.00918 T	0.0365 V
Low Molecular Weight PAH	total	XAD Filter	µg/L	23	16	69.6	0.000035 JT	0.00412 JT	W027	0.000887	0.000218 JV	0.00327 JV	0.000035 JT	0.00412 JT	W027	0.000731	0.000256 UT	0.00289 JV
Low Molecular Weight PAH	total	XAD Column+Filter	µg/L	23	23	100	0.00107 JT	0.0639 T	W023	0.0146	0.0109 JT	0.0367 JV	0.00107 JT	0.0639 T	W023	0.0146	0.0109 JT	0.0367 JV
Total BaPEq	total	Peristaltic	µg/L	23	3	13	3.1E-06 JT	0.00107 JT	W011	0.000691	0.001 JT	0.00106 JV	3.1E-06 JT	0.0086 UT	W005; W011; W023E; W023M; W023W; W024; W025E; W025M; W025W; W027	0.00314	0.0043 UT	0.0043 UV
Total BaPEq	total	XAD Column	µg/L	23	23	100	1.1E-07 JT	0.000193 JT	W011	5.86E-05	5.23E-05 JT	0.000164 JV	1.1E-07 JT	0.000193 JT	W011	5.86E-05	5.23E-05 JT	0.000164 JV
Total BaPEq	total	XAD Filter	µg/L	23	23	100	8.5E-06 JT	0.00396 T	W005	0.000942	0.000707 T	0.00341 JV	8.5E-06 JT	0.00396 T	W005	0.000942	0.000707 T	0.00341 JV
Total BaPEq	total	XAD Column+Filter	µg/L	23	23	100	5.73E-05 JT	0.00406 JT	W005	0.001	0.000759 JT	0.00342 JV	5.73E-05 JT	0.00406 JT	W005	0.001	0.000759 JT	0.00342 JV
Total cPAHs	total	Peristaltic	µg/L	23	3	13	0.0031 JT	0.024 JT	W011	0.0124	0.01 JT	0.0226 JV	0.0031 JT	0.024 JT	W011	0.00551	0.0055 UT	0.00955 JV
Total cPAHs	total	XAD Column	µg/L	23	23	100	0.000047 JT	0.0023 JT	W011	0.000898	0.00056 JT	0.00199 JV	0.000047 JT	0.0023 JT	W011	0.000898	0.00056 JT	0.00199 JV
Total cPAHs	total	XAD Filter	µg/L	23	23	100	0.000085 JT	0.017 T	W005	0.00372	0.0032 T	0.0135 JV	0.000085 JT	0.017 T	W005	0.00372	0.0032 T	0.0135 JV
Total cPAHs	total	XAD Column+Filter	µg/L	23	23	100	0.000327 JT	0.0183 JT	W005	0.00462	0.00349 JT	0.0142 JV	0.000327 JT	0.0183 JT	W005	0.00462	0.00349 JT	0.0142 JV
Total PAHs	total	Peristaltic	µg/L	23	14	60.9	0.01 JT	0.046 JT	W027	0.024	0.021 JV	0.0435 JV	0.0074 UT	0.046 JT	W027	0.0173	0.015 JT	0.0416 JV
Total PAHs	total	XAD Column	µg/L	23	23	100	0.00346 JT	0.0655 JT	W023	0.0235	0.0274 JT	0.0482 JV	0.00346 JT	0.0655 JT	W023	0.0235	0.0274 JT	0.0482 JV
Total PAHs	total	XAD Filter	µg/L	23	23	100	0.000482 T	0.0359 JT	W005	0.00819	0.0045 JT	0.0303 JV	0.000482 T	0.0359 JT	W005	0.00819	0.0045 JT	0.0303 JV
Total PAHs	total	XAD Column+Filter	µg/L	23	23	100	0.00397 JT	0.0661 JT	W005	0.0317	0.035 JT	0.0654 JV	0.00397 JT	0.0661 JT	W005	0.0317	0.035 JT	0.0654 JV

Table 5.3-4. Summary Statistics for Total Suspended Solids and Indicator Chemicals in Surface Water, Low-Flow Events - Transect Locations.

							Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Fraction	Method	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Semivolatile Organic Compounds																		
Hexachlorobenzene	total	Peristaltic	µg/L	23	0	0	--	--	--	--	--	--	0.015 U	0.017 U	W025M	0.00761	0.0075 U	0.008 UV
Hexachlorobenzene	total	XAD Column	µg/L	23	23	100	1.57E-05	5.54E-05	W011	2.74E-05	2.37E-05 J	4.78E-05 V	1.57E-05	5.54E-05	W011	2.74E-05	2.37E-05 J	4.78E-05 V
Hexachlorobenzene	total	XAD Filter	µg/L	23	18	78.3	3.08E-06 J	4.53E-05	W024	8.5E-06	4.92E-06 JV	0.000028 V	7.22E-07 U	4.53E-05	W024	6.82E-06	3.86E-06 J	2.35E-05 JV
Hexachlorobenzene	total	XAD Column+Filter	µg/L	23	23	100	0.000017 J	7.32E-05	W023	3.41E-05	2.82E-05 J	6.18E-05 JV	0.000017 J	7.32E-05	W023	3.41E-05	2.82E-05 J	6.18E-05 JV

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners whenever available regardless of their qualification, except for LWG beach samples where preference is given to Aroclors.

-- data not available.
BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
LWG - Lower Willamette Group
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TEQ - toxic equivalent concentration

Reason codes for qualifiers:
A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

Table 5.3-5. Summary Statistics for Total Suspended Solids and Indicator Chemicals in Surface Water, Low-Flow Events - Single-Point Locations.

							Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Fraction	Method	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Conventionals																		
Total suspended solids	total	Peristaltic	mg/L	65	41	63.1	3 J	15 J	W002; W003	7.83	7	14 T	3 J	15 J	W002; W003	5.86	5	13 JV
Metals																		
Arsenic	dissolved	Peristaltic	µg/L	65	65	100	0.249	0.64	W001	0.384	0.372	0.505 V	0.249	0.64	W001	0.384	0.372	0.505 V
Arsenic	total	Peristaltic	µg/L	65	65	100	0.328 T	0.745 T	W001	0.451	0.435	0.624 V	0.328 T	0.745 T	W001	0.451	0.435	0.624 V
Copper	dissolved	Peristaltic	µg/L	65	63	96.9	0.37	1.64 J	W022	0.711	0.66	1.1 V	0.37	1.64 J	W022	0.697	0.65	1.09 V
Copper	total	Peristaltic	µg/L	65	65	100	0.685 T	2.09	W004	1.13	1.02	1.73 JV	0.685 T	2.09	W004	1.13	1.02	1.73 JV
Lead	dissolved	Peristaltic	µg/L	65	51	78.5	0.009 J	0.152	W008	0.0264	0.02	0.07 V	0.009 J	0.152	W008	0.0223	0.015 J	0.0574 V
Lead	total	Peristaltic	µg/L	65	65	100	0.077	1.8	W008	0.255	0.166	0.572 V	0.077	1.8	W008	0.255	0.166	0.572 V
Zinc	dissolved	Peristaltic	µg/L	65	58	89.2	0.9 J	41.9	W022	2.82	1.8 JV	4.7 JV	0.9 J	41.9	W022	2.6	1.8 J	4.62 JV
Zinc	total	Peristaltic	µg/L	65	64	98.5	1.65 T	57.9	W022	3.84	2.65 V	5.93 JV	1.65 T	57.9	W022	3.8	2.6 J	5.88 JV
PCB Aroclors																		
Aroclors	total	Peristaltic	µg/L	50	6	12	0.00467 JT	0.0154 T	W014	0.00946	0.0086 JV	0.015 JV	0.0025 UJT	0.0154 T	W014	0.00225	0.00125 UV	0.00883 JV
PCB Congeners																		
Total PCB Congeners	total	XAD Column	pg/L	15	15	100	137 JT	2420 JT	W013-1	809	581 JT	2240 JV	137 JT	2420 JT	W013-1	809	581 JT	2240 JV
Total PCB Congeners	total	XAD Filter	pg/L	14	14	100	201 JT	9560 JT	W013-1	1870	908 JV	7190 JV	201 JT	9560 JT	W013-1	1870	908 JV	7190 JV
Total PCB Congeners	total	XAD Column+Filter	pg/L	14	14	100	375 JT	12000 JT	W013-1	2590	1480 JV	9380 JV	375 JT	12000 JT	W013-1	2590	1480 JV	9380 JV
Total PCBs[c]																		
Total PCBs	total	Peristaltic	µg/L	50	6	12	0.00467 JT	0.0154 T	W014	0.00946	0.0086 JV	0.015 JV	0.0025 UJT	0.0154 T	W014	0.00225	0.00125 UV	0.00883 JV
Total PCBs	total	XAD Column	µg/L	15	15	100	0.000137 JT	0.00242 JT	W013-1	0.000809	0.000581 JT	0.00224 JV	0.000137 JT	0.00242 JT	W013-1	0.000809	0.000581 JT	0.00224 JV
Total PCBs	total	XAD Filter	µg/L	14	14	100	0.000201 JT	0.00956 JT	W013-1	0.00187	0.000908 JV	0.00719 JV	0.000201 JT	0.00956 JT	W013-1	0.00187	0.000908 JV	0.00719 JV
Total PCBs	total	XAD Column+Filter	µg/L	14	14	100	0.000375 JT	0.012 JT	W013-1	0.00259	0.00148 JV	0.00938 JV	0.000375 JT	0.012 JT	W013-1	0.00259	0.00148 JV	0.00938 JV
PCDD/F Homologs																		
Total PCDD/F	total	XAD Column	pg/L	9	9	100	0.897 JT	12.5 JT	W013-2	4.01	2.96 T	10.1 JV	0.897 JT	12.5 JT	W013-2	4.01	2.96 T	10.1 JV
Total PCDD/F	total	XAD Filter	pg/L	9	9	100	26.3 T	156 T	W013-1	59.3	47.4 T	125 V	26.3 T	156 T	W013-1	59.3	47.4 T	125 V
Total PCDD/F	total	XAD Column+Filter	pg/L	9	9	100	30.7 T	162 T	W013-1	63.3	50.4 T	130 V	30.7 T	162 T	W013-1	63.3	50.4 T	130 V
PCDD/Fs																		
Dioxin/furan TCDD toxicity equivalent (ND = 0)	total	XAD Column	pg/L	9	9	100	0.00106 T	0.0382 JT	W013-2	0.0163	0.0122 JT	0.0363 JV	0.00106 T	0.0382 JT	W013-2	0.0163	0.0122 JT	0.0363 JV
Dioxin/furan TCDD toxicity equivalent (ND = 0)	total	XAD Filter	pg/L	9	9	100	0.109 JT	0.91 JT	W013-2	0.327	0.333 JT	0.734 JV	0.109 JT	0.91 JT	W013-2	0.327	0.333 JT	0.734 JV
Dioxin/furan TCDD toxicity equivalent (ND = 0)	total	XAD Column+Filter	pg/L	9	9	100	0.11 JT	0.917 JT	W013-2	0.343	0.357 JT	0.751 JV	0.11 JT	0.917 JT	W013-2	0.343	0.357 JT	0.751 JV
Total PCB TEQ																		
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	total	XAD Column	pg/L	15	15	100	0.000125 T	0.00288 JT	W016-1	0.001	0.000436 T	0.00264 JV	0.000125 T	0.00288 JT	W016-1	0.001	0.000436 T	0.00264 JV
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	total	XAD Filter	pg/L	14	14	100	0.000624 T	0.0242 T	W013-1	0.00765	0.00543 V	0.0182 V	0.000624 T	0.0242 T	W013-1	0.00765	0.00543 V	0.0182 V
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	total	XAD Column+Filter	pg/L	14	14	100	0.000786 T	0.0245 T	W013-1	0.00869	0.00584 JV	0.0199 JV	0.000786 T	0.0245 T	W013-1	0.00869	0.00584 JV	0.0199 JV
Pesticides																		
Aldrin	total	Peristaltic	µg/L	52	0	0	–	–	–	–	–	–	0.000472 UJ	0.000538 UJ	W002	0.000248	0.000245 UV	0.000263 UJV
Aldrin	total	XAD Column	µg/L	15	12	80	5.37E-07 J	0.00000327 J	W015	0.00000123	1.17E-06 JV	0.00000226 JV	4.18E-07 UJ	0.00000327 J	W015	0.0000011	9.72E-07 J	0.00000199 JV
Aldrin	total	XAD Filter	µg/L	15	14	93.3	1.22E-07 J	0.000013	W015	0.00000147	5.18E-07 JV	0.00000537 JV	1.22E-07 J	0.000013	W015	0.00000138	4.06E-07 J	0.00000478 JV
Aldrin	total	XAD Column+Filter	µg/L	15	15	100	3.1E-07 J	0.0000163 J	W015	0.00000236	0.0000014 J	0.00000657 JV	3.1E-07 J	0.0000163 J	W015	0.00000236	0.0000014 J	0.00000657 JV
Dieldrin	total	Peristaltic	µg/L	52	0	0	–	–	–	–	–	–	0.000472 UJ	0.000538 UJ	W002	0.000248	0.000245 UV	0.000263 UJV
Dieldrin	total	XAD Column	µg/L	15	15	100	0.0000227	0.0000468	W015	0.0000342	0.0000349	0.0000449 V	0.0000227	0.0000468	W015	0.0000342	0.0000349	0.0000449 V
Dieldrin	total	XAD Filter	µg/L	15	12	80	2.4E-07 J	0.0000157	W015	0.00000406	2.86E-06 JV	0.0000108 JV	2.4E-07 J	0.0000157	W015	0.00000344	2.14E-06 J	0.0000095 JV
Dieldrin	total	XAD Column+Filter	µg/L	15	15	100	0.0000227	0.0000625	W015	0.0000374	0.0000374 J	0.0000544 JV	0.0000227	0.0000625	W015	0.0000374	0.0000374 J	0.0000544 JV
gamma-Hexachlorocyclohexane	total	Peristaltic	µg/L	52	1	1.92	0.000768	0.000768	W022	0.000768	0.000768	0.000768	0.000472 UJ	0.000768	W022	0.000258	0.000246 UV	0.000264 UV
gamma-Hexachlorocyclohexane	total	XAD Column	µg/L	15	15	100	7.23E-06	0.0000711	W015	0.000033	0.0000291	0.0000637 V	7.23E-06	0.0000711	W015	0.000033	0.0000291	0.0000637 V
gamma-Hexachlorocyclohexane	total	XAD Filter	µg/L	15	8	53.3	1.47E-07 J	0.00000128 J	W016-1	4.22E-07	2.34E-07 JV	0.00000113 JV	2.9E-08 U	0.00000128 J	W016-1	2.42E-07	1.47E-07 J	9.87E-07 JV
gamma-Hexachlorocyclohexane	total	XAD Column+Filter	µg/L	15	15	100	7.23E-06	0.0000712 J	W015	0.0000332	0.0000291	0.0000646 JV	7.23E-06	0.0000712 J	W015	0.0000332	0.0000291	0.0000646 JV

Table 5.3-5. Summary Statistics for Total Suspended Solids and Indicator Chemicals in Surface Water, Low-Flow Events - Single-Point Locations.

							Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Fraction	Method	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Total Chlordanes	total	Peristaltic	µg/L	52	1	1.92	0.00212 JT	0.00212 JT	W002	0.00212	0.00212 JT	0.00212 JT	0.000472 UJT	0.00212 JT	W002	0.000284	0.000245 UV	0.000263 UJV
Total Chlordanes	total	XAD Column	µg/L	15	15	100	0.0000126 JT	0.0000555 JT	W015	0.0000219	0.0000206 JT	0.0000353 JV	0.0000126 JT	0.0000555 JT	W015	0.0000219	0.0000206 JT	0.0000353 JV
Total Chlordanes	total	XAD Filter	µg/L	15	15	100	9.36E-07 JT	0.000185 JT	W015	0.00002	7.07E-06 JT	0.0000675 JV	9.36E-07 JT	0.000185 JT	W015	0.00002	7.07E-06 JT	0.0000675 JV
Total Chlordanes	total	XAD Column+Filter	µg/L	15	15	100	0.0000173 JT	0.000241 JT	W015	0.0000419	0.0000272 JT	0.000102 JV	0.0000173 JT	0.000241 JT	W015	0.0000419	0.0000272 JT	0.000102 JV
Total of 2,4' and 4,4'-DDD	total	Peristaltic	µg/L	52	1	1.92	0.000839 T	0.000839 T	W012	0.000839	0.000839 T	0.000839 T	0.000472 UJT	0.000839 T	W012	0.000259	0.000246 UV	0.000264 UJV
Total of 2,4' and 4,4'-DDD	total	XAD Column	µg/L	15	15	100	0.0000105 T	0.00256 T	W015	0.000645	0.0000518 T	0.00243 V	0.0000105 T	0.00256 T	W015	0.000645	0.0000518 T	0.00243 V
Total of 2,4' and 4,4'-DDD	total	XAD Filter	µg/L	15	15	100	2.67E-06 JT	0.00261 T	W015	0.000612	0.0000205 T	0.00235 V	2.67E-06 JT	0.00261 T	W015	0.000612	0.0000205 T	0.00235 V
Total of 2,4' and 4,4'-DDD	total	XAD Column+Filter	µg/L	15	15	100	0.0000185 T	0.00517 T	W015	0.00126	0.0000574 JT	0.00479 V	0.0000185 T	0.00517 T	W015	0.00126	0.0000574 JT	0.00479 V
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	total	Peristaltic	µg/L	52	4	7.69	0.000693 JT	0.0187 NJT	W001	0.00535	0.000995 V	0.0161 JV	0.000472 UJT	0.0187 NJT	W001	0.00064	0.000249 UJV	0.000759 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	total	XAD Column	µg/L	15	15	100	0.0000254 JT	0.00346 T	W015	0.000819	0.0000778 JT	0.00312 V	0.0000254 JT	0.00346 T	W015	0.000819	0.0000778 JT	0.00312 V
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	total	XAD Filter	µg/L	15	15	100	7.63E-06 JT	0.00679 T	W016-1	0.00127	0.0000514 JT	0.00498 V	7.63E-06 JT	0.00679 T	W016-1	0.00127	0.0000514 JT	0.00498 V
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	total	XAD Column+Filter	µg/L	15	15	100	0.0000492 JT	0.00976 T	W016-1	0.00209	0.000103 JT	0.0083 V	0.0000492 JT	0.00976 T	W016-1	0.00209	0.000103 JT	0.0083 V
Total of 2,4' and 4,4'-DDE	total	Peristaltic	µg/L	52	0	0	--	--	--	--	--	--	0.000472 UJT	0.000538 UJT	W002	0.000248	0.000245 UV	0.000263 UJV
Total of 2,4' and 4,4'-DDE	total	XAD Column	µg/L	15	15	100	0.0000101 JT	0.000349 T	W015	0.0000748	0.0000221 JT	0.000268 V	0.0000101 JT	0.000349 T	W015	0.0000748	0.0000221 JT	0.000268 V
Total of 2,4' and 4,4'-DDE	total	XAD Filter	µg/L	15	15	100	4.96E-06 JT	0.00052 T	W016-1	0.000115	0.0000175 JT	0.000365 V	4.96E-06 JT	0.00052 T	W016-1	0.000115	0.0000175 JT	0.000365 V
Total of 2,4' and 4,4'-DDE	total	XAD Column+Filter	µg/L	15	15	100	0.0000224 JT	0.000753 T	W016-1	0.000189	0.0000362 JT	0.00068 V	0.0000224 JT	0.000753 T	W016-1	0.000189	0.0000362 JT	0.00068 V
Total of 2,4' and 4,4'-DDT	total	Peristaltic	µg/L	52	3	5.77	0.000693 JT	0.0187 NJT	W001	0.00685	0.00115 T	0.0169 JV	0.000472 UJT	0.0187 NJT	W001	0.000629	0.000248 UJV	0.00046 JV
Total of 2,4' and 4,4'-DDT	total	XAD Column	µg/L	15	15	100	7.44E-07 JT	0.000547 T	W015	0.0000992	6.03E-06 T	0.000413 V	7.44E-07 JT	0.000547 T	W015	0.0000992	6.03E-06 T	0.000413 V
Total of 2,4' and 4,4'-DDT	total	XAD Filter	µg/L	15	13	86.7	5.98E-07 JT	0.00403 T	W016-1	0.000624	0.0000126 JT	0.00244 V	2.94E-07 UT	0.00403 T	W016-1	0.000541	0.0000099 T	0.00218 V
Total of 2,4' and 4,4'-DDT	total	XAD Column+Filter	µg/L	15	15	100	1.34E-06 JT	0.00439 T	W016-1	0.00064	0.0000207 JT	0.00261 V	1.34E-06 JT	0.00439 T	W016-1	0.00064	0.0000207 JT	0.00261 V
Polycyclic Aromatic Hydrocarbons																		
Benzo(a)pyrene	total	Peristaltic	µg/L	65	7	10.8	0.0024 J	0.15	W012	0.0271	0.004 J	0.111 V	0.0016 U	0.15	W012	0.00444	0.0016 U	0.00408 JV
Benzo(a)pyrene	total	XAD Column	µg/L	15	10	66.7	0.0000183 J	0.000336	W015	0.0000868	0.0000417 JV	0.000249 JV	0.0000169 U	0.000336	W015	0.0000694	0.0000379 J	0.000201 JV
Benzo(a)pyrene	total	XAD Filter	µg/L	15	11	73.3	0.000336	0.0063	W015	0.00168	0.000852	0.0046 V	0.000185 U	0.0063	W015	0.00127	0.000722	0.00391 V
Benzo(a)pyrene	total	XAD Column+Filter	µg/L	15	14	93.3	0.0000183 J	0.00664	W015	0.00138	0.000816 JV	0.00429 JV	0.0000183 J	0.00664	W015	0.00129	0.00079 J	0.00411 JV
High Molecular Weight PAH	total	Peristaltic	µg/L	65	44	67.7	0.0026 JT	1.77 JT	W012	0.069	0.0175 JV	0.126 JV	0.0026 JT	1.77 JT	W012	0.0482	0.0099 JT	0.0745 JV
High Molecular Weight PAH	total	XAD Column	µg/L	15	15	100	0.00179 JT	0.0719 JT	W015	0.0126	0.00508 JT	0.0494 JV	0.00179 JT	0.0719 JT	W015	0.0126	0.00508 JT	0.0494 JV
High Molecular Weight PAH	total	XAD Filter	µg/L	15	15	100	0.000916 T	0.059 T	W015	0.014	0.00686 T	0.0415 V	0.000916 T	0.059 T	W015	0.014	0.00686 T	0.0415 V
High Molecular Weight PAH	total	XAD Column+Filter	µg/L	15	15	100	0.00353 JT	0.131 JT	W015	0.0266	0.0116 JT	0.0884 JV	0.00353 JT	0.131 JT	W015	0.0266	0.0116 JT	0.0884 JV
Low Molecular Weight PAH	total	Peristaltic	µg/L	65	27	41.5	0.0013 JT	1.08 T	W012	0.08	0.0078 JT	0.528 JV	0.0013 JT	1.08 T	W012	0.0355	0.0038 JT	0.0563 JV
Low Molecular Weight PAH	total	XAD Column	µg/L	15	15	100	0.00567 T	0.0973 T	W015	0.0269	0.0194 T	0.0638 V	0.00567 T	0.0973 T	W015	0.0269	0.0194 T	0.0638 V
Low Molecular Weight PAH	total	XAD Filter	µg/L	15	12	80	0.0000316 JT	0.0134 T	W018	0.00217	0.000745 V	0.00828 V	0.0000316 JT	0.0134 T	W018	0.00183	0.000545 UT	0.00688 V
Low Molecular Weight PAH	total	XAD Column+Filter	µg/L	15	15	100	0.00585 T	0.1 T	W015	0.0286	0.0212 JT	0.0647 JV	0.00585 T	0.1 T	W015	0.0286	0.0212 JT	0.0647 JV
Total BaPEq	total	Peristaltic	µg/L	65	29	44.6	0.000002 JT	0.195 JT	W012	0.00906	0.00043 JT	0.0195 JV	0.000002 JT	0.195 JT	W012	0.00497	0.00165 UT	0.00678 JV
Total BaPEq	total	XAD Column	µg/L	15	15	100	9.33E-06 JT	0.000658 T	W015	0.000124	0.0000586 JT	0.000371 V	9.33E-06 JT	0.000658 T	W015	0.000124	0.0000586 JT	0.000371 V
Total BaPEq	total	XAD Filter	µg/L	15	15	100	0.0000266 T	0.00881 T	W015	0.00178	0.000953 T	0.00563 V	0.0000266 T	0.00881 T	W015	0.00178	0.000953 T	0.00563 V
Total BaPEq	total	XAD Column+Filter	µg/L	15	15	100	0.000075 JT	0.00947 T	W015	0.00191	0.00103 JT	0.00599 JV	0.000075 JT	0.00947 T	W015	0.00191	0.00103 JT	0.00599 JV
Total cPAHs	total	Peristaltic	µg/L	65	29	44.6	0.002 JT	0.78 JT	W012	0.039	0.0048 JT	0.0832 JV	0.002 JT	0.78 JT	W012	0.0186	0.0021 UT	0.0354 JV
Total cPAHs	total	XAD Column	µg/L	15	15	100	0.00022 JT	0.009 T	W015	0.00166	0.00063 JT	0.00683 V	0.00022 JT	0.009 T	W015	0.00166	0.00063 JT	0.00683 V
Total cPAHs	total	XAD Filter	µg/L	15	15	100	0.00067 T	0.037 T	W015	0.00831	0.0045 T	0.0251 V	0.00067 T	0.037 T	W015	0.00831	0.0045 T	0.0251 V
Total cPAHs	total	XAD Column+Filter	µg/L	15	15	100	0.00132 JT	0.046 T	W015	0.00998	0.00513 JT	0.0319 V	0.00132 JT	0.046 T	W015	0.00998	0.00513 JT	0.0319 V
Total PAHs	total	Peristaltic	µg/L	65	49	75.4	0.0026 JT	2.46 JT	W012	0.106	0.0177 JT	0.205 JV	0.0026 JT	2.46 JT	W012	0.0812	0.0123 JT	0.0793 JV
Total PAHs	total	XAD Column	µg/L	15	15	100	0.00748 JT	0.169 JT	W015	0.0395	0.0219 JT	0.0978 JV	0.00748 JT	0.169 JT	W015	0.0395	0.0219 JT	0.0978 JV
Total PAHs	total	XAD Filter	µg/L	15	15	100	0.000916 T	0.0619 T	W015	0.0157	0.00686 T	0.0452 V	0.000916 T	0.0619 T	W015	0.0157	0.00686 T	0.0452 V
Total PAHs	total	XAD Column+Filter	µg/L	15	15	100	0.0125 JT	0.231 JT	W015	0.0552	0.0275 JT	0.139 JV	0.0125 JT	0.231 JT	W015	0.0552	0.0275 JT	0.139 JV

Table 5.3-5. Summary Statistics for Total Suspended Solids and Indicator Chemicals in Surface Water, Low-Flow Events - Single-Point Locations.

							Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Fraction	Method	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Semivolatile Organic Compounds																		
Hexachlorobenzene	total	Peristaltic	µg/L	65	6	9.23	0.000906 J	0.00701	W022	0.003	0.0017 JV	0.00667 V	0.000472 U	0.016 U	W002; W013-1	0.00198	0.00025 U	0.0075 UV
Hexachlorobenzene	total	XAD Column	µg/L	15	15	100	0.0000281	0.000054	W015	0.0000397	0.0000389	0.0000536 V	0.0000281	0.000054	W015	0.0000397	0.0000389	0.0000536 V
Hexachlorobenzene	total	XAD Filter	µg/L	15	14	93.3	3.06E-06 J	0.000032	W016-1	0.0000088	5.88E-06 V	0.0000225 V	9.18E-07 U	0.000032	W016-1	0.00000824	4.27E-06	0.0000218 V
Hexachlorobenzene	total	XAD Column+Filter	µg/L	15	15	100	0.0000308	0.0000854	W016-1	0.0000479	0.0000426 J	0.0000739 V	0.0000308	0.0000854	W016-1	0.0000479	0.0000426 J	0.0000739 V

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners whenever available regardless of their qualification, except for LWG beach samples where preference is given to Aroclors.

-- data not available.
BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
LWG - Lower Willamette Group
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TEQ - toxic equivalent concentration

Reason codes for qualifiers:
A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

Table 5.3-6. Summary Statistics for Total Suspended Solids and Indicator Chemicals in Surface Water, Stormwater-Influenced Events - Transect Locations.

							Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Fraction	Method	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Conventionals																		
Total suspended solids	total	Peristaltic	mg/L	14	13	93	3 J	6	W005	4.6	5 J	6 V	1 UJ	6	W005	4.3	5 JV	6 V
Total suspended solids w/0.45 um filter	total	Peristaltic	mg/L	10	8	80	2	5	W025E	3.6	4 JV	4.7 V	1 UJ	5	W025E	3	3.5 JV	4.6 V
Metals																		
Arsenic	dissolved	Peristaltic	µg/L	14	0	0	–	–	–	–	–	–	0.372 U	0.586 U	W025W	0.201	0.197 UV	0.234 UJV
Arsenic	total	Peristaltic	µg/L	14	4	28.6	0.439 J	0.476 J	W005	0.455	0.452 JV	0.473 JV	0.394 UJ	0.647 UJ	W025W	0.289	0.22 UJV	0.464 JV
Copper	dissolved	Peristaltic	µg/L	14	14	100	0.46	1.23	W023M	0.582	0.55 V	0.814 V	0.46	1.23	W023M	0.582	0.55 V	0.814 V
Copper	total	Peristaltic	µg/L	14	14	100	0.65	1.1	W024	0.867	0.86 V	1.05 V	0.65	1.1	W024	0.867	0.86 V	1.05 V
Lead	dissolved	Peristaltic	µg/L	14	10	71.4	0.015 J	0.041	W023E	0.0251	0.0245 V	0.0361 V	0.015 J	0.047 U	W005	0.0241	0.0228 V	0.0339 V
Lead	total	Peristaltic	µg/L	14	14	100	0.123	0.319	W023E	0.208	0.215 V	0.308 V	0.123	0.319	W023E	0.208	0.215 V	0.308 V
Zinc	dissolved	Peristaltic	µg/L	14	1	7.1	5.1	5.1	W025M	5.1	5.1	5.1	1.7 U	5.1	W025M	1.7	1.4 UV	3.1 V
Zinc	total	Peristaltic	µg/L	14	0	0	–	–	–	–	–	–	2.6 U	5.4 U	W024	1.9	1.9 UV	2.4 UJV
PCB Congeners																		
Total PCB Congeners	total	XAD Column	pg/L	14	14	100	77.7 JT	954 JT	W025E	218	158 JV	520 JV	77.7 JT	954 JT	W025E	218	158 JV	520 JV
Total PCB Congeners	total	XAD Filter	pg/L	14	14	100	39.9 JT	408 JT	W023E	154	124 JV	361 JV	39.9 JT	408 JT	W023E	154	124 JV	361 JV
Total PCB Congeners	total	XAD Column+Filter	pg/L	14	14	100	121 JT	1290 JT	W025E	372	292 JV	810 JV	121 JT	1290 JT	W025E	372	292 JV	810 JV
Total PCBs[c]																		
Total PCBs	total	XAD Column	µg/L	14	14	100	0.0000777 JT	0.000954 JT	W025E	0.000218	0.000158 JV	0.00052 JV	0.0000777 JT	0.000954 JT	W025E	0.000218	0.000158 JV	0.00052 JV
Total PCBs	total	XAD Filter	µg/L	14	14	100	0.0000399 JT	0.000408 JT	W023E	0.000154	0.000124 JV	0.000361 JV	0.0000399 JT	0.000408 JT	W023E	0.000154	0.000124 JV	0.000361 JV
Total PCBs	total	XAD Column+Filter	µg/L	14	14	100	0.000121 JT	0.00129 JT	W025E	0.000372	0.000292 JV	0.00081 JV	0.000121 JT	0.00129 JT	W025E	0.000372	0.000292 JV	0.00081 JV
PCDD/F Homologs																		
Total PCDD/F	total	XAD Column	pg/L	14	14	100	0.077 T	15.5 JT	W027	4.81	4.28 V	11.5 JV	0.077 T	15.5 JT	W027	4.81	4.28 V	11.5 JV
Total PCDD/F	total	XAD Filter	pg/L	14	14	100	5.43 JT	109 T	W023E	30.9	25.2 V	66.8 V	5.43 JT	109 T	W023E	30.9	25.2 V	66.8 V
Total PCDD/F	total	XAD Column+Filter	pg/L	14	14	100	5.51 JT	118 T	W023E	35.7	27 V	75.4 JV	5.51 JT	118 T	W023E	35.7	27 V	75.4 JV
PCDD/Fs																		
Dioxin/furan TCDD toxicity equivalent (ND = 0)	total	XAD Column	pg/L	14	14	100	0.00033 JT	0.0656 JT	W027	0.0158	0.00901 JV	0.0558 JV	0.00033 JT	0.0656 JT	W027	0.0158	0.00901 JV	0.0558 JV
Dioxin/furan TCDD toxicity equivalent (ND = 0)	total	XAD Filter	pg/L	14	14	100	0.0127 JT	0.245 JT	W023E	0.07	0.0593 JV	0.149 JV	0.0127 JT	0.245 JT	W023E	0.07	0.0593 JV	0.149 JV
Dioxin/furan TCDD toxicity equivalent (ND = 0)	total	XAD Column+Filter	pg/L	14	14	100	0.0133 JT	0.278 JT	W023E	0.0858	0.0743 JV	0.187 JV	0.0133 JT	0.278 JT	W023E	0.0858	0.0743 JV	0.187 JV
Total PCB TEQ																		
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	total	XAD Column	pg/L	14	14	100	0.0000489 T	0.00186 JT	W005	0.00041	0.000135 JV	0.00172 JV	0.0000489 T	0.00186 JT	W005	0.00041	0.000135 JV	0.00172 JV
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	total	XAD Filter	pg/L	14	14	100	0.000115 JT	0.0158 T	W023E	0.00417	0.00302 JV	0.011 JV	0.000115 JT	0.0158 T	W023E	0.00417	0.00302 JV	0.011 JV
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	total	XAD Column+Filter	pg/L	14	14	100	0.00019 JT	0.0159 JT	W023E	0.00458	0.00353 JV	0.0115 JV	0.00019 JT	0.0159 JT	W023E	0.00458	0.00353 JV	0.0115 JV
Pesticides																		
Aldrin	total	Peristaltic	µg/L	1	0	0	–	–	–	–	–	–	0.00047 U	0.00047 U	W027	0.000235	0.000235 U	0.000235 U
Aldrin	total	XAD Column	µg/L	14	7	50	0.0000011 J	3.66E-06 J	W005	2.27E-06	0.00000201 J	3.62E-06 JV	0.0000011 J	7.24E-06 U	W027	1.91E-06	0.00000179 JV	3.63E-06 JV
Aldrin	total	XAD Filter	µg/L	14	4	28.6	1.19E-06 J	2.63E-06 J	W027	1.84E-06	0.00000176 JV	2.57E-06 JV	5.8E-07 U	2.63E-06 J	W027	9.78E-07	0.00000082 UV	2.37E-06 JV
Aldrin	total	XAD Column+Filter	µg/L	14	9	64.3	0.0000011 J	5.75E-06 J	W027	2.58E-06	0.00000204 J	4.91E-06 JV	6.06E-07 U	5.75E-06 J	W027	1.88E-06	0.0000014 JV	4.39E-06 JV
Dieldrin	total	Peristaltic	µg/L	1	0	0	–	–	–	–	–	–	0.0004 U	0.0004 U	W027	0.0002	0.0002 U	0.0002 U
Dieldrin	total	XAD Column	µg/L	14	14	100	0.0000251 J	0.0000467 J	W024	0.0000333	0.0000315 JV	0.0000425 JV	0.0000251 J	0.0000467 J	W024	0.0000333	0.0000315 JV	0.0000425 JV
Dieldrin	total	XAD Filter	µg/L	14	6	42.9	0.0000012 J	7.85E-06 J	W024	0.0000046	0.00000479 JV	7.63E-06 JV	0.0000012 J	7.85E-06 J	W024	2.89E-06	0.00000192 JV	7.28E-06 JV
Dieldrin	total	XAD Column+Filter	µg/L	14	14	100	0.0000251 J	0.0000537 J	W024	0.0000352	0.0000331 JV	0.0000501 JV	0.0000251 J	0.0000537 J	W024	0.0000352	0.0000331 JV	0.0000501 JV
gamma-Hexachlorocyclohexane	total	Peristaltic	µg/L	1	1	100	0.00016 J	0.00016 J	W027	0.00016	0.00016 J	0.00016 J	0.00016 J	0.00016 J	W027	0.00016	0.00016 J	0.00016 J
gamma-Hexachlorocyclohexane	total	XAD Column	µg/L	14	13	92.9	0.000017 J	0.0000285 J	W023E	0.000023	0.0000232 J	0.0000278 JV	0.000017 J	0.0000285 J	W023E	0.0000221	0.0000231 JV	0.0000277 JV
gamma-Hexachlorocyclohexane	total	XAD Filter	µg/L	14	1	7.14	1.47E-06 J	1.47E-06 J	W027	1.47E-06	0.00000147 J	1.47E-06 J	4.11E-07 U	5.99E-06 U	W025M	1.22E-06	0.00000055 UV	2.98E-06 UV
gamma-Hexachlorocyclohexane	total	XAD Column+Filter	µg/L	14	13	92.9	0.000017 J	0.0000285 J	W023E	0.0000231	0.0000232 J	0.0000278 JV	5.77E-06 U	0.0000285 J	W023E	0.0000217	0.0000231 JV	0.0000277 JV
Total Chlordanes	total	Peristaltic	µg/L	1	0	0	–	–	–	–	–	–	0.0015 UT	0.0015 UT	W027	0.00075	0.00075 UT	0.00075 UT
Total Chlordanes	total	XAD Column	µg/L	14	14	100	0.0000121 JT	0.0000316 JT	W027	0.0000213	0.0000211 JV	0.0000291 JV	0.0000121 JT	0.0000316 JT	W027	0.0000213	0.0000211 JV	0.0000291 JV
Total Chlordanes	total	XAD Filter	µg/L	14	4	28.6	1.32E-06 JT	0.0000098 JT	W027	0.000006	0.00000643 JV	9.36E-06 JV	1.32E-06 JT	0.0000168 UT	W025M	6.89E-06	0.0000076 UV	8.89E-06 JV
Total Chlordanes	total	XAD Column+Filter	µg/L	14	14	100	0.0000134 JT	0.0000376 JT	W027	0.0000231	0.0000213 JV	0.0000369 JV	0.0000134 JT	0.0000376 JT	W027	0.0000231	0.0000213 JV	0.0000369 JV
Total of 2,4' and 4,4'-DDD	total	Peristaltic	µg/L	1	0	0	–	–	–	–	–	–	0.00094 UT	0.00094 UT	W027	0.00047	0.00047 UT	0.00047 UT
Total of 2,4' and 4,4'-DDD	total	XAD Column	µg/L	14	14	100	0.0000174 JT	0.0000889 JT	W025M	0.0000478	0.0000451 JV	0.0000862 JV	0.0000174 JT	0.0000889 JT	W025M	0.0000478	0.0000451 JV	0.0000862 JV
Total of 2,4' and 4,4'-DDD	total	XAD Filter	µg/L	14	8	57.1	4.94E-06 JT	0.0000392 JT	W005	0.0000231	0.0000249 JV	0.0000346 JV	4.94E-06 JT	0.0000392 JT	W005	0.0000158	0.0000132 JV	0.0000306 JV
Total of 2,4' and 4,4'-DDD	total	XAD Column+Filter	µg/L	14	14	100	0.0000174 JT	0.000111 JT	W011	0.000061	0.0000657 JV	0.000111 JV	0.0000174 JT	0.000111 JT	W011	0.000061	0.0000657 JV	0.000111 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	total	Peristaltic	µg/L	1	1	100	0.0019 T	0.0019 T	W027	0.0019	0.0019 T	0.0019 T	0.0019 T	0.0019 T	W027	0.0019	0.0019 T	0.0019 T
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	total	XAD Column	µg/L	14	14	100	0.0000332 JT	0.000141 JT	W011	0.0000756	0.0000715 JV	0.000129 JV	0.0000332 JT	0.000141 JT	W011	0.0000756	0.0000715 JV	0.000129 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	total	XAD Filter	µg/L	14	13	92.9	7.86E-06 JT	0.0000926 JT	W005	0.000054	0.0000585 JT	0.0000805 JV	7.86E-06 JT	0.0000926 JT	W005	0.0000504	0.0000559 JV	0.0000795 JV

Table 5.3-6. Summary Statistics for Total Suspended Solids and Indicator Chemicals in Surface Water, Stormwater-Influenced Events - Transect Locations.

							Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Fraction	Method	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	total	XAD Column+Filter	µg/L	14	14	100	0.0000332 JT	0.000201 JT	W011	0.000126	0.000135 JV	0.00019 JV	0.0000332 JT	0.000201 JT	W011	0.000126	0.000135 JV	0.00019 JV
Total of 2,4' and 4,4'-DDE	total	Peristaltic	µg/L	1	0	0	–	–	–	–	–	–	0.00025 UT	0.00025 UT	W027	0.000125	0.000125 UT	0.000125 UT
Total of 2,4' and 4,4'-DDE	total	XAD Column	µg/L	14	14	100	0.000013 JT	0.0000423 JT	W011	0.0000198	0.0000182 JV	0.0000315 JV	0.000013 JT	0.0000423 JT	W011	0.0000198	0.0000182 JV	0.0000315 JV
Total of 2,4' and 4,4'-DDE	total	XAD Filter	µg/L	14	12	85.7	0.0000163 JT	0.0000308 JT	W024	0.0000214	0.0000197 JV	0.0000292 JV	8.03E-06 UT	0.0000308 JT	W024	0.000019	0.0000187 JV	0.0000289 JV
Total of 2,4' and 4,4'-DDE	total	XAD Column+Filter	µg/L	14	14	100	0.0000135 JT	0.0000614 JT	W011	0.0000381	0.0000383 JV	0.00005 JV	0.0000135 JT	0.0000614 JT	W011	0.0000381	0.0000383 JV	0.00005 JV
Total of 2,4' and 4,4'-DDT	total	Peristaltic	µg/L	1	1	100	0.0019 T	0.0019 T	W027	0.0019	0.0019 T	0.0019 T	0.0019 T	0.0019 T	W027	0.0019	0.0019 T	0.0019 T
Total of 2,4' and 4,4'-DDT	total	XAD Column	µg/L	14	13	92.9	2.33E-06 JT	0.0000136 JT	W011	8.63E-06	0.00000848 JT	0.000013 JV	2.33E-06 JT	0.0000136 JT	W011	8.23E-06	0.00000844 JV	0.000013 JV
Total of 2,4' and 4,4'-DDT	total	XAD Filter	µg/L	14	13	92.9	6.89E-06 JT	0.0000329 JT	W023E	0.00002	0.0000213 JT	0.0000327 JV	5.65E-06 UT	0.0000329 JT	W023E	0.0000188	0.0000208 JV	0.0000327 JV
Total of 2,4' and 4,4'-DDT	total	XAD Column+Filter	µg/L	14	14	100	2.33E-06 JT	0.0000412 JT	W023E	0.0000266	0.000029 JV	0.0000404 JV	2.33E-06 JT	0.0000412 JT	W023E	0.0000266	0.000029 JV	0.0000404 JV
Polycyclic Aromatic Hydrocarbons																		
Benzo(a)pyrene	total	Peristaltic	µg/L	14	0	0	–	–	–	–	–	–	0.0043 U	0.0086 U	W005; W011; W023E; W023M; W023W; W024; W025E; W025M; W025W; W027	0.00399	0.0043 UV	0.0043 UV
Benzo(a)pyrene	total	XAD Column	µg/L	14	1	7.14	0.000198 J	0.000198 J	W023E	0.000198	0.000198 J	0.000198 J	0.0000663 U	0.000198 J	W023E	0.0000646	0.0000595 UV	0.000121 JV
Benzo(a)pyrene	total	XAD Filter	µg/L	14	10	71.4	0.000486 J	0.00175	W005	0.000958	0.00102 JV	0.00153 JV	0.000228 U	0.00175	W005	0.000743	0.000661 JV	0.00144 JV
Benzo(a)pyrene	total	XAD Column+Filter	µg/L	14	10	71.4	0.000486 J	0.00175	W005	0.000978	0.00105 JV	0.00153 JV	0.0000663 U	0.00175	W005	0.000714	0.000661 JV	0.00144 JV
High Molecular Weight PAH	total	Peristaltic	µg/L	14	6	42.9	0.0095 JT	0.068 JT	W027	0.0231	0.014 JV	0.0568 JV	0.0095 JT	0.068 JT	W027	0.013	0.0055 UV	0.0388 JV
High Molecular Weight PAH	total	XAD Column	µg/L	14	14	100	0.000158 JT	0.0042 JT	W025E	0.00186	0.00206 JV	0.00372 JV	0.000158 JT	0.0042 JT	W025E	0.00186	0.00206 JV	0.00372 JV
High Molecular Weight PAH	total	XAD Filter	µg/L	14	14	100	0.00168 JT	0.018 JT	W005	0.00796	0.00786 JV	0.0148 JV	0.00168 JT	0.018 JT	W005	0.00796	0.00786 JV	0.0148 JV
High Molecular Weight PAH	total	XAD Column+Filter	µg/L	14	14	100	0.00184 JT	0.021 JT	W005	0.00981	0.011 JV	0.0172 JV	0.00184 JT	0.021 JT	W005	0.00981	0.011 JV	0.0172 JV
Low Molecular Weight PAH	total	Peristaltic	µg/L	14	4	28.6	0.0057 JT	0.0087 JT	W024	0.00713	0.00705 JV	0.00855 JV	0.0057 JT	0.042 UT	W025W	0.00971	0.0082 JV	0.0191 UV
Low Molecular Weight PAH	total	XAD Column	µg/L	14	14	100	0.000904 JT	0.0238 T	W005	0.0064	0.00363 JV	0.0202 JV	0.000904 JT	0.0238 T	W005	0.0064	0.00363 JV	0.0202 JV
Low Molecular Weight PAH	total	XAD Filter	µg/L	14	6	42.9	0.0000722 JT	0.000206 JT	W005	0.00013	0.00012 JV	0.000202 JV	0.0000722 JT	0.00112 UT	W024	0.000327	0.000362 UV	0.000544 UV
Low Molecular Weight PAH	total	XAD Column+Filter	µg/L	14	14	100	0.000904 JT	0.0238 T	W005	0.00645	0.0037 JV	0.0202 JV	0.000904 JT	0.0238 T	W005	0.00645	0.0037 JV	0.0202 JV
Total BaPEq	total	Peristaltic	µg/L	14	1	7.14	0.00969 JT	0.00969 JT	W027	0.00969	0.00969 JT	0.00969 JT	0.0043 UT	0.00969 JT	W027	0.00453	0.0043 UV	0.00619 JV
Total BaPEq	total	XAD Column	µg/L	14	10	71.4	1.58E-07 JT	0.000221 JT	W023E	0.0000236	4.78E-07 JV	0.000124 JV	1.58E-07 JT	0.00344 UT	W025M	0.000369	0.00000341 JV	0.00137 UV
Total BaPEq	total	XAD Filter	µg/L	14	14	100	0.0000283 JT	0.00203 JT	W005	0.000831	0.000777 JV	0.00167 JV	0.0000283 JT	0.00203 JT	W005	0.000831	0.000777 JV	0.00167 JV
Total BaPEq	total	XAD Column+Filter	µg/L	14	14	100	0.0000285 JT	0.00203 JT	W005	0.000848	0.00078 JV	0.00167 JV	0.0000285 JT	0.00203 JT	W005	0.000848	0.00078 JV	0.00167 JV
Total cPAHs	total	Peristaltic	µg/L	14	1	7.14	0.048 JT	0.048 JT	W027	0.048	0.048 JT	0.048 JT	0.0053 UT	0.048 JT	W027	0.00833	0.0055 UV	0.0204 JV
Total cPAHs	total	XAD Column	µg/L	14	10	71.4	0.00016 JT	0.0012 JT	W023E	0.000502	0.000385 JV	0.00101 JV	0.00016 JT	0.00344 UT	W025M	0.00071	0.000585 JV	0.00138 JV
Total cPAHs	total	XAD Filter	µg/L	14	14	100	0.00041 JT	0.008 JT	W005	0.00346	0.0029 JV	0.0067 JV	0.00041 JT	0.008 JT	W005	0.00346	0.0029 JV	0.0067 JV
Total cPAHs	total	XAD Column+Filter	µg/L	14	14	100	0.00057 JT	0.00857 JT	W005	0.00382	0.00348 JV	0.00748 JV	0.00057 JT	0.00857 JT	W005	0.00382	0.00348 JV	0.00748 JV
Total PAHs	total	Peristaltic	µg/L	14	9	64.3	0.0057 JT	0.068 JT	W027	0.0185	0.012 JT	0.05 JV	0.0057 JT	0.068 JT	W027	0.016	0.012 JV	0.0388 JV
Total PAHs	total	XAD Column	µg/L	14	14	100	0.00111 JT	0.0269 JT	W005	0.00825	0.00591 JV	0.0215 JV	0.00111 JT	0.0269 JT	W005	0.00825	0.00591 JV	0.0215 JV
Total PAHs	total	XAD Filter	µg/L	14	14	100	0.00168 JT	0.0182 JT	W005	0.00801	0.00786 JV	0.015 JV	0.00168 JT	0.0182 JT	W005	0.00801	0.00786 JV	0.015 JV
Total PAHs	total	XAD Column+Filter	µg/L	14	14	100	0.00279 JT	0.0389 JT	W005	0.0163	0.0163 JV	0.0325 JV	0.00279 JT	0.0389 JT	W005	0.0163	0.0163 JV	0.0325 JV
Semivolatile Organic Compounds																		
Hexachlorobenzene	total	Peristaltic	µg/L	14	0	0	–	–	–	–	–	–	0.015 U	0.016 U	W011; W025W	0.00757	0.0075 UV	0.008 UV
Hexachlorobenzene	total	XAD Column	µg/L	14	14	100	0.000011 J	0.0000215 J	W025E	0.0000172	0.0000176 JV	0.00002 JV	0.000011 J	0.0000215 J	W025E	0.0000172	0.0000176 JV	0.00002 JV
Hexachlorobenzene	total	XAD Filter	µg/L	14	2	14.3	2.62E-06 J	4.18E-06 J	W027	0.0000034	0.0000034 JV	0.0000041 JV	0.0000019 U	0.0000106 U	W025M	2.11E-06	0.00000162 UV	4.57E-06 JV
Hexachlorobenzene	total	XAD Column+Filter	µg/L	14	14	100	0.0000136 J	0.0000215 J	W025E	0.0000177	0.0000181 JV	0.0000201 JV	0.0000136 J	0.0000215 J	W025E	0.0000177	0.0000181 JV	0.0000201 JV

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners whenever available regardless of their qualification, except for LWG beach samples where preference is given to Aroclors.

-- data not available.
BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
LWG - Lower Willamette Group
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TEQ - toxic equivalent concentration

Reason codes for qualifiers:
A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

Table 5.3-7. Summary Statistics for Total Suspended Solids and Indicator Chemicals in Surface Water, Stormwater-Influenced Events - Single-Point Locations.

							Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Fraction	Method	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Conventionals																		
Total suspended solids	total	Peristaltic	mg/L	26	26	100	2	7	W026	4.2	4 JV	6 JV	2	7	W026	4.2	4 JV	6 JV
Total suspended solids w/0.45 um filter	total	Peristaltic	mg/L	6	6	100	3	5	W033	4	4 V	4.8 V	3	5	W033	4	4 V	4.8 V
Metals																		
Arsenic	dissolved	Peristaltic	µg/L	26	5	19.2	0.38 J	0.48 T	W038	0.415	0.404 JT	0.466 V	0.38 J	0.48 T	W038	0.243	0.201 UV	0.41 JV
Arsenic	total	Peristaltic	µg/L	26	19	73.1	0.428 J	0.526 JT	W038	0.463	0.458 J	0.513 JV	0.412 UJ	0.526 JT	W038	0.398	0.452 JV	0.505 JV
Copper	dissolved	Peristaltic	µg/L	26	26	100	0.5 T	0.78	W035	0.56	0.56 V	0.64 V	0.5 T	0.78	W035	0.56	0.56 V	0.64 V
Copper	total	Peristaltic	µg/L	26	26	100	0.79	1.14	W035	0.918	0.89 V	1.1 V	0.79	1.14	W035	0.918	0.89 V	1.1 V
Lead	dissolved	Peristaltic	µg/L	26	6	23.1	0.023	0.026	W033	0.0247	0.025 V	0.0258 V	0.023	0.058 U	W028	0.0228	0.0223 UV	0.0279 V
Lead	total	Peristaltic	µg/L	26	26	100	0.182	0.355	W028	0.241	0.235 V	0.323 V	0.182	0.355	W028	0.241	0.235 V	0.323 V
Zinc	dissolved	Peristaltic	µg/L	26	4	15	4.8	6.6	W034	5.5	5.3 V	6.4 V	2.2 U	6.6	W034	2.1	1.4 UV	5.4 V
Zinc	total	Peristaltic	µg/L	26	0	0	--	--	--	--	--	--	3 U	7 U	W028	2.1	1.9 UV	2.9 UV
PCB Congeners																		
Total PCB Congeners	total	XAD Column	pg/L	26	26	100	89.3 JT	2370 JT	W030	328	181 JV	695 JV	89.3 JT	2370 JT	W030	328	181 JV	695 JV
Total PCB Congeners	total	XAD Filter	pg/L	26	26	100	23.1 JT	457 JT	W028	179	157 JV	417 JV	23.1 JT	457 JT	W028	179	157 JV	417 JV
Total PCB Congeners	total	XAD Column+Filter	pg/L	26	26	100	112 JT	2590 JT	W030	507	333 JV	1100 JV	112 JT	2590 JT	W030	507	333 JV	1100 JV
Total PCBs[c]																		
Total PCBs	total	XAD Column	µg/L	26	26	100	0.0000893 JT	0.00237 JT	W030	0.000328	0.000181 JV	0.000695 JV	0.0000893 JT	0.00237 JT	W030	0.000328	0.000181 JV	0.000695 JV
Total PCBs	total	XAD Filter	µg/L	26	26	100	0.0000231 JT	0.000457 JT	W028	0.000179	0.000157 JV	0.000417 JV	0.0000231 JT	0.000457 JT	W028	0.000179	0.000157 JV	0.000417 JV
Total PCBs	total	XAD Column+Filter	µg/L	26	26	100	0.000112 JT	0.00259 JT	W030	0.000507	0.000333 JV	0.0011 JV	0.000112 JT	0.00259 JT	W030	0.000507	0.000333 JV	0.0011 JV
PCDD/F Homologs																		
Total PCDD/F	total	XAD Column	pg/L	8	8	100	2.79 T	8.55 T	W033	5.39	4.89 JV	8.14 V	2.79 T	8.55 T	W033	5.39	4.89 JV	8.14 V
Total PCDD/F	total	XAD Filter	pg/L	8	8	100	27.4 T	49.4 T	W032	40.4	41.1 V	49 V	27.4 T	49.4 T	W032	40.4	41.1 V	49 V
Total PCDD/F	total	XAD Column+Filter	pg/L	8	8	100	36 T	55.2 JT	W032	45.8	46.5 V	54.7 JV	36 T	55.2 JT	W032	45.8	46.5 V	54.7 JV
PCDD/Fs																		
Dioxin/furan TCDD toxicity equivalent (ND = 0)	total	XAD Column	pg/L	8	8	100	0.0051 T	0.0173 JT	W033	0.00977	0.00843 JV	0.0164 JV	0.0051 T	0.0173 JT	W033	0.00977	0.00843 JV	0.0164 JV
Dioxin/furan TCDD toxicity equivalent (ND = 0)	total	XAD Filter	pg/L	8	8	100	0.0726 JT	0.203 JT	W033	0.118	0.101 JV	0.194 JV	0.0726 JT	0.203 JT	W033	0.118	0.101 JV	0.194 JV
Dioxin/furan TCDD toxicity equivalent (ND = 0)	total	XAD Column+Filter	pg/L	8	8	100	0.0777 JT	0.212 JT	W033	0.127	0.108 JV	0.202 JV	0.0777 JT	0.212 JT	W033	0.127	0.108 JV	0.202 JV
Total PCB TEQ																		
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	total	XAD Column	pg/L	26	26	100	0.0000856 T	0.00465 JT	W026	0.000629	0.000165 JV	0.00373 JV	0.0000856 T	0.00465 JT	W026	0.000629	0.000165 JV	0.00373 JV
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	total	XAD Filter	pg/L	26	26	100	0.0000357 T	0.00937 JT	W030	0.00203	0.000348 JV	0.00665 JV	0.0000357 T	0.00937 JT	W030	0.00203	0.000348 JV	0.00665 JV
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	total	XAD Column+Filter	pg/L	26	26	100	0.000131 JT	0.0132 JT	W030	0.00266	0.000759 JV	0.00688 JV	0.000131 JT	0.0132 JT	W030	0.00266	0.000759 JV	0.00688 JV
Pesticides																		
Aldrin	total	Peristaltic	µg/L	17	0	0	--	--	--	--	--	--	0.000057 U	0.0005 U	W026	0.000166	0.00016 U	0.000242 UV
Aldrin	total	XAD Column	µg/L	12	4	33.3	2.03E-06 J	0.00000426 J	W033	3.26E-06	0.00000337 JV	4.17E-06 JV	1.87E-06 U	4.26E-06 J	W033	2.08E-06	1.93E-06 UV	3.94E-06 JV
Aldrin	total	XAD Filter	µg/L	12	6	50	6.35E-07 J	0.00000366 J	W031	0.0000019	0.00000174 JV	0.0000033 JV	6.35E-07 J	0.0000167 U	W035	2.22E-06	1.56E-06 JV	5.77E-06 JV
Aldrin	total	XAD Column+Filter	µg/L	12	9	75	6.35E-07 J	0.00000484 J	W033	2.72E-06	0.00000223 J	4.61E-06 JV	6.35E-07 J	4.84E-06 J	W033	2.26E-06	1.87E-06 JV	4.52E-06 JV
Dieldrin	total	Peristaltic	µg/L	17	0	0	--	--	--	--	--	--	0.0004 U	0.00042 U	W029; W037	0.000201	0.0002 U	0.00021 UV
Dieldrin	total	XAD Column	µg/L	12	12	100	0.0000319 J	0.0000498 J	W031	0.0000391	0.0000367 JV	0.0000479 JV	0.0000319 J	0.0000498 J	W031	0.0000391	0.0000367 JV	0.0000479 JV
Dieldrin	total	XAD Filter	µg/L	12	6	50	2.37E-06 J	0.00000415 J	W031	3.07E-06	0.00000299 JV	3.99E-06 JV	2.03E-06 U	4.15E-06 J	W031	2.22E-06	2.09E-06 JV	3.79E-06 JV
Dieldrin	total	XAD Column+Filter	µg/L	12	12	100	0.0000319 J	0.0000501 J	W031	0.0000407	0.000037 JV	0.0000499 JV	0.0000319 J	0.0000501 J	W031	0.0000407	0.000037 JV	0.0000499 JV
gamma-Hexachlorocyclohexane	total	Peristaltic	µg/L	17	7	41.2	0.00018 J	0.0004 NJ	W038	0.000259	0.00025 NJ	0.000367 JV	0.000092 U	0.0005 U	W036	0.000222	0.00024 U	0.000312 JV
gamma-Hexachlorocyclohexane	total	XAD Column	µg/L	12	12	100	0.0000195 J	0.0000317 J	W031	0.0000262	0.0000256 JV	0.0000312 JV	0.0000195 J	0.0000317 J	W031	0.0000262	0.0000256 JV	0.0000312 JV
gamma-Hexachlorocyclohexane	total	XAD Filter	µg/L	12	3	25	8.17E-07 J	0.00000185 J	W032	1.32E-06	0.00000128 J	1.79E-06 JV	6.41E-07 U	6.18E-06 U	W033	1.92E-06	2.32E-06 JV	3.04E-06 UV
gamma-Hexachlorocyclohexane	total	XAD Column+Filter	µg/L	12	12	100	0.0000203 J	0.0000317 J	W031	0.0000266	0.0000263 JV	0.0000312 JV	0.0000203 J	0.0000317 J	W031	0.0000266	0.0000263 JV	0.0000312 JV
Total Chlordanes	total	Peristaltic	µg/L	17	2	11.8	0.00055 NJT	0.0016 JT	W036	0.00108	0.00108 JV	0.00155 JV	0.00055 NJT	0.0024 UT	W030	0.00076	0.0007 UT	0.00128 JV
Total Chlordanes	total	XAD Column	µg/L	12	12	100	6.72E-06 JT	0.0000299 JT	W032	0.0000206	0.0000212 JV	0.0000286 JV	6.72E-06 JT	0.0000299 JT	W032	0.0000206	0.0000212 JV	0.0000286 JV
Total Chlordanes	total	XAD Filter	µg/L	12	11	91.7	5.97E-07 JT	0.0000113 JT	W032	6.16E-06	0.0000051 JT	0.0000106 JV	5.97E-07 JT	0.0000327 UT	W034	7.01E-06	6.87E-06 JV	0.0000136 JV
Total Chlordanes	total	XAD Column+Filter	µg/L	12	12	100	7.32E-06 JT	0.0000368 JT	W033	0.0000263	0.0000262 JV	0.0000365 JV	7.32E-06 JT	0.0000368 JT	W033	0.0000263	0.0000262 JV	0.0000365 JV
Total of 2,4' and 4,4'-DDD	total	Peristaltic	µg/L	17	0	0	--	--	--	--	--	--	0.00094 UT	0.0019 UT	W036	0.000505	0.00047 UT	0.00063 UV
Total of 2,4' and 4,4'-DDD	total	XAD Column	µg/L	12	12	100	0.0000225 JT	0.000182 JT	W033	0.0000795	0.0000853 JV	0.000153 JV	0.0000225 JT	0.000182 JT	W033	0.0000795	0.0000853 JV	0.000153 JV
Total of 2,4' and 4,4'-DDD	total	XAD Filter	µg/L	12	12	100	9.94E-06 JT	0.000166 JT	W033	0.0000635	0.0000566 JV	0.000162 JV	9.94E-06 JT	0.000166 JT	W033	0.0000635	0.0000566 JV	0.000162 JV
Total of 2,4' and 4,4'-DDD	total	XAD Column+Filter	µg/L	12	12	100	0.000035 JT	0.000348 JT	W033	0.000143	0.000127 JV	0.000304 JV	0.000035 JT	0.000348 JT	W033	0.000143	0.000127 JV	0.000304 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	total	Peristaltic	µg/L	17	12	70.6	0.0015 T	0.0047 NJT	W037	0.00258	0.00255 JV	0.00393 JV	0.001 UT	0.0047 NJT	W037	0.00201	0.002 JT	0.00358 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	total	XAD Column	µg/L	12	12	100	0.0000415 JT	0.000246 JT	W033	0.000126	0.000134 JV	0.000224 JV	0.0000415 JT	0.000246 JT	W033	0.000126	0.000134 JV	0.000224 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	total	XAD Filter	µg/L	12	12	100	0.0000193 JT	0.000429 JT	W033	0.000154	0.000144 JV	0.000349 JV	0.0000193 JT	0.000429 JT	W033	0.000154	0.000144 JV	0.000349 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	total	XAD Column+Filter	µg/L	12	12	100	0.0000767 JT	0.000675 JT	W033	0.00028	0.000282 JV	0.000543 JV	0.0000767 JT	0.000675 JT	W033	0.00028	0.000282 JV	0.000543 JV
Total of 2,4' and 4,4'-DDE	total	Peristaltic	µg/L	17	0	0	--	--	--	--	--	--	0.00025 UT	0.0013 UT	W036	0.000219	0.00024 UT	0.00041 UV
Total of 2,4' and 4,4'-DDE	total	XAD Column	µg/L	12	12	100	0.000012 JT	0.0000553 JT	W031	0.0000278	0.000025 JV	0.0000515 JV	0.000012 JT	0.0000553 JT	W031	0.0000278	0.000025 JV	0.0000515 JV

Table 5.3-7. Summary Statistics for Total Suspended Solids and Indicator Chemicals in Surface Water, Stormwater-Influenced Events - Single-Point Locations.

							Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Fraction	Method	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Total of 2,4' and 4,4'-DDE	total	XAD Filter	µg/L	12	12	100	5.54E-06 JT	0.0000649 JT	W033	0.0000333	0.0000359 JV	0.0000599 JV	5.54E-06 JT	0.0000649 JT	W033	0.0000333	0.0000359 JV	0.0000599 JV
Total of 2,4' and 4,4'-DDE	total	XAD Column+Filter	µg/L	12	12	100	0.0000261 JT	0.0000964 JT	W033	0.000061	0.0000621 JV	0.0000935 JV	0.0000261 JT	0.0000964 JT	W033	0.000061	0.0000621 JV	0.0000935 JV
Total of 2,4' and 4,4'-DDT	total	Peristaltic	µg/L	17	12	70.6	0.0015 T	0.0047 NJT	W037	0.00258	0.00255 JV	0.00393 JV	0.001 UT	0.0047 NJT	W037	0.00201	0.002 JT	0.00358 JV
Total of 2,4' and 4,4'-DDT	total	XAD Column	µg/L	12	12	100	4.46E-06 JT	0.0000464 JT	W033	0.0000185	0.0000191 JV	0.0000367 JV	4.46E-06 JT	0.0000464 JT	W033	0.0000185	0.0000191 JV	0.0000367 JV
Total of 2,4' and 4,4'-DDT	total	XAD Filter	µg/L	12	12	100	3.28E-06 JT	0.000207 JT	W033	0.0000571	0.0000428 JV	0.000144 JV	3.28E-06 JT	0.000207 JT	W033	0.0000571	0.0000428 JV	0.000144 JV
Total of 2,4' and 4,4'-DDT	total	XAD Column+Filter	µg/L	12	12	100	0.0000156 JT	0.000236 JT	W033	0.0000756	0.0000618 JV	0.000177 JV	0.0000156 JT	0.000236 JT	W033	0.0000756	0.0000618 JV	0.000177 JV
Polycyclic Aromatic Hydrocarbons																		
Benzo(a)pyrene	total	Peristaltic	µg/L	26	1	3.85	0.0088 J	0.0088 J	W033	0.0088	0.0088 J	0.0088 J	0.0086 U	0.0088 J	W033	0.00447	0.0043 UV	0.0043 UV
Benzo(a)pyrene	total	XAD Column	µg/L	8	0	0	--	--	--	--	--	--	0.0000622 U	0.000149 U	W033	0.0000478	0.0000448 UV	0.0000708 UV
Benzo(a)pyrene	total	XAD Filter	µg/L	8	5	62.5	0.000501 J	0.00334	W033	0.00165	0.000956 J	0.00321 V	0.000336 U	0.00334	W033	0.00113	0.000646 JV	0.00311 V
Benzo(a)pyrene	total	XAD Column+Filter	µg/L	8	5	62.5	0.000501 J	0.00334	W033	0.00165	0.000956 J	0.00321 V	0.0000622 U	0.00334	W033	0.00105	0.000646 JV	0.00311 V
High Molecular Weight PAH	total	Peristaltic	µg/L	26	10	38.5	0.011 JT	0.09 JT	W033	0.0347	0.031 JV	0.068 JV	0.011 JT	0.09 JT	W033	0.0167	0.0055 UV	0.0393 JV
High Molecular Weight PAH	total	XAD Column	µg/L	8	8	100	0.000356 JT	0.00647 JT	W033	0.0032	0.00386 JV	0.00581 JV	0.000356 JT	0.00647 JT	W033	0.0032	0.00386 JV	0.00581 JV
High Molecular Weight PAH	total	XAD Filter	µg/L	8	8	100	0.00237 JT	0.0301 JT	W033	0.0124	0.0101 JV	0.0289 JV	0.00237 JT	0.0301 JT	W033	0.0124	0.0101 JV	0.0289 JV
High Molecular Weight PAH	total	XAD Column+Filter	µg/L	8	8	100	0.00362 JT	0.0341 JT	W033	0.0156	0.0145 JV	0.0328 JV	0.00362 JT	0.0341 JT	W033	0.0156	0.0145 JV	0.0328 JV
Low Molecular Weight PAH	total	Peristaltic	µg/L	26	6	23.1	0.005 JT	0.034 JT	W033	0.0125	0.00585 JV	0.0303 JV	0.005 JT	0.034 JT	W029; W033	0.00865	0.0065 UV	0.0185 JV
Low Molecular Weight PAH	total	XAD Column	µg/L	8	8	100	0.000721 JT	0.0252 T	W035	0.0106	0.0119 V	0.022 V	0.000721 JT	0.0252 T	W035	0.0106	0.0119 V	0.022 V
Low Molecular Weight PAH	total	XAD Filter	µg/L	8	5	62.5	0.0000627 JT	0.000536 JT	W033	0.000275	0.000157 JT	0.00053 JV	0.0000627 JT	0.00194 UT	W035	0.000401	0.000406 JV	0.000825 UV
Low Molecular Weight PAH	total	XAD Column+Filter	µg/L	8	8	100	0.000784 JT	0.0252 T	W035	0.0108	0.0122 JV	0.0222 JV	0.000784 JT	0.0252 T	W035	0.0108	0.0122 JV	0.0222 JV
Total BaPEq	total	Peristaltic	µg/L	26	2	7.69	0.000016 JT	0.00982 JT	W033	0.00492	0.00492 JV	0.00933 JV	0.000016 JT	0.00982 JT	W033	0.00435	0.0043 UV	0.0043 UV
Total BaPEq	total	XAD Column	µg/L	8	8	100	3.56E-07 JT	0.000905 JT	W032	0.000223	0.00000548 JV	0.000888 JV	3.56E-07 JT	0.000905 JT	W032	0.000223	5.48E-06 JV	0.000888 JV
Total BaPEq	total	XAD Filter	µg/L	8	8	100	0.0000472 JT	0.00415 JT	W033	0.00133	0.00083 JV	0.00384 JV	0.0000472 JT	0.00415 JT	W033	0.00133	0.00083 JV	0.00384 JV
Total BaPEq	total	XAD Column+Filter	µg/L	8	8	100	0.000142 JT	0.00415 JT	W033	0.00155	0.00112 JV	0.00384 JV	0.000142 JT	0.00415 JT	W033	0.00155	0.00112 JV	0.00384 JV
Total cPAHs	total	Peristaltic	µg/L	26	2	7.69	0.016 JT	0.034 JT	W033	0.025	0.025 JV	0.0331 JV	0.011 UT	0.034 JT	W033	0.007	0.0055 UV	0.0134 JV
Total cPAHs	total	XAD Column	µg/L	8	8	100	0.00036 JT	0.0012 JT	W032	0.000756	0.000725 JV	0.0012 JV	0.00036 JT	0.0012 JT	W032	0.000756	0.000725 JV	0.0012 JV
Total cPAHs	total	XAD Filter	µg/L	8	8	100	0.00082 JT	0.014 JT	W033	0.00577	0.00435 JV	0.0137 JV	0.00082 JT	0.014 JT	W033	0.00577	0.00435 JV	0.0137 JV
Total cPAHs	total	XAD Column+Filter	µg/L	8	8	100	0.00202 JT	0.0145 JT	W033	0.00652	0.00509 JV	0.0142 JV	0.00202 JT	0.0145 JT	W033	0.00652	0.00509 JV	0.0142 JV
Total PAHs	total	Peristaltic	µg/L	26	12	46.2	0.005 JT	0.12 JT	W033	0.0349	0.032 JV	0.087 JV	0.005 JT	0.12 JT	W033	0.0197	0.0065 UV	0.0538 JV
Total PAHs	total	XAD Column	µg/L	8	8	100	0.00108 JT	0.0298 JT	W035	0.0138	0.0158 JV	0.027 JV	0.00108 JT	0.0298 JT	W035	0.0138	0.0158 JV	0.027 JV
Total PAHs	total	XAD Filter	µg/L	8	8	100	0.00237 JT	0.0306 JT	W033	0.0126	0.0101 JV	0.0294 JV	0.00237 JT	0.0306 JT	W033	0.0126	0.0101 JV	0.0294 JV
Total PAHs	total	XAD Column+Filter	µg/L	8	8	100	0.00586 JT	0.0507 JT	W033	0.0264	0.0287 JV	0.0486 JV	0.00586 JT	0.0507 JT	W033	0.0264	0.0287 JV	0.0486 JV
Semivolatile Organic Compounds																		
Hexachlorobenzene	total	Peristaltic	µg/L	28	2	7.14	0.00011 J	0.00016 J	W030	0.000135	0.000135 JV	0.000158 JV	0.00011 J	0.017 U	W026	0.00648	0.0075 UV	0.0075 UV
Hexachlorobenzene	total	XAD Column	µg/L	12	11	91.7	0.0000175 J	0.0000213 J	W033	0.0000191	0.0000192 J	0.000021 JV	0.0000175 J	0.0000213 J	W033	0.0000183	0.0000188 JV	0.000021 JV
Hexachlorobenzene	total	XAD Filter	µg/L	12	10	83.3	1.05E-06 J	0.00000575 J	W035	3.72E-06	0.00000388 JV	5.12E-06 JV	1.05E-06 J	5.75E-06 J	W035	3.47E-06	3.51E-06 JV	4.99E-06 JV
Hexachlorobenzene	total	XAD Column+Filter	µg/L	12	12	100	4.19E-06 J	0.0000265 J	W035	0.0000206	0.0000213 JV	0.000026 JV	4.19E-06 J	0.0000265 J	W035	0.0000206	0.0000213 JV	0.000026 JV

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners whenever available regardless of their qualification, except for LWG beach samples where preference is given to Aroclors.

-- data not available.
BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
LWG - Lower Willamette Group
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TEQ - toxic equivalent concentration

Reason codes for qualifiers:
A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

Table 5.3-8. Surface Water Sampling Event and Station Summary.

			Sampling Method				Sampling Event						
	River Mile	Location Description / Nearest Property	Round 2	Round 3	Peristaltic	XAD	R2A Nov 2004 Low Flow	R2 Mar 2005 Low Flow	R2A Jul 2005 Low Flow	R3A Jan 2006 High Flow [a]	R3A Sep 2006 Low Flow	R3A Nov 2006 Stormwater-Influenced	R3A Jan 2007 High Flow [b]
Transect Stations													
Round 2 and Round 3													
W005	3.9	Kinder-Morgan (Linnton) Liquid Terminals	EDI	NB/NS	√	√	√	√	√	√	√	√	√
W011	6.3	Near Middle of Study Area (at Gasco)	EDI	NB/NS	√	√	√	√	√	–	√	√	√
W023	11	Upstream Boundary of Study Area	EDI	VI (E,M,W)	√	√	√	√	√	√	√	√	√
Round 3													
W025	2	Downstream Extent of Study Area (at Oregon Steel Mills)	–	VI (E,M,W)	√	√	–	–	–	–	√	√	√
W027	2.9, Mult. Channel	Downstream of Study Area (Multnomah Channel at Alder Creek Lumber)	–	NB/NS	√	√	–	–	–	–	√	√	√
W024	16	Upstream of Study Area and City of Portland	–	NB/NS	√	√	–	–	–	√	√	√	√
Single-Point Stations													
Round 2													
W001	2	Oregon Steel Mills	NB	–	√	–	√	√	√	–	–	–	–
W002	2.2	near Western Shore Sauvie Island	NB	–	√	–	√	√	√	–	–	–	–
W003	3	PGE-Harborton Subst.	NB	–	√	–	√	√	√	–	–	–	–
W004	3.7	NW Pipe Co.	NB	–	√	–	√	√	√	–	–	–	–
W006	4	Kinder Morgan	NB	–	√	–	√	√	√	–	–	–	–
W007	4.4	Port of Portland, Terminal 4, Slip 1	NB	–	√	–	√	√	√	–	–	–	–
W008	4.6	Port of Portland, Terminal 4, Slip 3	NB	–	√	–	√	√	√	–	–	–	–
W009	5.6	Brix Maritime	NB	–	√	–	√	√	√	–	–	–	–
W010	5.7	Former Mar Com Shipyard	VI	–	√	–	√	√	√	–	–	–	–
W012	6.3	Gasco	NB	–	√	–	√	√	√	–	–	–	–
W013	6.9	Willamette Cove	NB	–	√	√	√	√	√	–	–	–	–

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Table 5.3-8. Surface Water Sampling Event and Station Summary.

			Sampling Method				Sampling Event						
	River Mile	Location Description / Nearest Property	Round 2	Round 3	Peristaltic	XAD	R2A Nov 2004 Low Flow	R2 Mar 2005 Low Flow	R2A Jul 2005 Low Flow	R3A Jan 2006 High Flow [a]	R3A Sep 2006 Low Flow	R3A Nov 2006 Stormwater-Influenced	R3A Jan 2007 High Flow [b]
W014	6.9	Willamette Cove	VI	--	√	--	√	√	√	--	--	--	--
W015	6.9	Arkema downstream	NB	--	√	√	√	√	√	--	--	--	--
W016	7.2	Arkema upstream	NB	--	√	√	√	√	√	--	--	--	--
W017	7.5	Arkema/Kinder Morgan boundary	NB	--	√	--	√	√	√	--	--	--	--
W018	8.3	Swan Island Lagoon (near USCG Marine Safety)	NB	--	√	√	√	√	√	--	--	--	--
W019	8.6	Texaco/Gunderson	NB	--	√	--	√	√	√	--	--	--	--
W020	9.1	Swan Island Lagoon	VI	--	√	--	√	√	√	--	--	--	--
W021	8.7	Swan Island Lagoon (Southern end)	NB	--	√	--	√	√	√	--	--	--	--
W022	9.7	Port of Portland Terminal 2	NB	--	√	--	√	√	√	--	--	--	--
Round 3													
W026	2.1	Oregon Steel Mills	--	NB/NS	√	√	--	--	--	--	--	√	√
W028	3.6	Time Oil Site	--	NB/NS	√	√	--	--	--	--	--	√	√
W029	4.4	Kinder Morgan	--	NB/NS	√	√	--	--	--	--	--	√	√
W030	5.5	Former Mar Com Shipyard	--	NB/NS	√	√	--	--	--	--	--	√	√
W031	6.1	Gasco	--	NB/NS	√	√	--	--	--	--	--	√	√
W032	6.9	Willamette Cove	--	NB/NS	√	√	--	--	--	--	--	√	√
W033	7	Arkema (downstream)	--	NB/NS	√	√	--	--	--	--	--	√	√
W034	7.5	Arkema (upstream)	--	NB/NS	√	√	--	--	--	--	--	√	√
W035	8.5	Swan Island Lagoon	--	NB/NS	√	√	--	--	--	--	--	√	√
W036	8.6	Texaco-Gunderson	--	NB/NS	√	√	--	--	--	--	--	√	√
W037	9.6	Port of Portland-Terminal 2	--	NB/NS	√	√	--	--	--	--	--	√	√
W038	9.9	near East Shore, RM 9.9	--	NB/NS	√	√	--	--	--	--	--	√	√

Notes:

[a] Only near-surface samples were collected in the January 2006 high-flow event.

[b] The January/February 2007 high-flow event was cancelled after two days of sampling due to an unexpected change in flow conditions. Sampling resumed on February 21, 2008.

-- Indicates samples not collected.

EDI - equal discharge increment transect sample
NB/NS - Near Bottom/Near Surface sample pair
NB - Near Bottom sample
VI (E,M,W) - Vertically integrated sample: east - middle - west

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Table 5.4-1. Summary of Map and Figure Presentation of Nature and Extent of TZW Chemistry.

Analyte/Analyte Group	Figure	Map (River Mile) 4-5	5-6	6-7	7-8	8-9
Other						
Perchlorate		NS	NS	NS	Map 5.4-9	ND
Cyanide		NS	NS	Map 5.4-8	NS	NS
Metals						
Arsenic	Figure 5.4-4a	Map 5.4-10a	Map 5.4-10b	Map 5.4-10c	Map 5.4-10d	Map 5.4-10e
Barium	Figure 5.4-4b					
Cadmium	Figure 5.4-4c					
Copper	Figure 5.4-4d	Map 5.4-11a	Map 5.4-11b	Map 5.4-11c	Map 5.4-11d	Map 5.4-11e
Lead	Figure 5.4-4e					
Manganese	Figure 5.4-4f					
Nickel	Figure 5.4-4g					
Zinc	Figure 5.4-4h	Map 5.4-12a	Map 5.4-12b	Map 5.4-12c	Map 5.4-12d	Map 5.4-12e
Pesticides						
Total DDx	Figure 5.4-1	NS	NS	Map 5.4-1	Map 5.4-1	NS
Herbicides						
Silvex		NS	NS	Map 5.4-7	NS	NS
PAHs						
Total PAHs	Figures 5.4-2a-f	Map 5.4-2a	Map 5.4-2b	Map 5.4-2c, d	Map 5.4-2e	NS
Total cPAH		Map 5.4-3a	Map 5.4-3b	Maps 5.4-3c, d	ND	NS
Benzo(a)pyrene		Map 5.4-4a	Map 5.4-4b	Maps 5.4-4c, d	ND	NS
Naphthalene		Map 5.4-5a	Map 5.4-5a	Maps 5.4-5b-d	Map 5.4-5e	ND*
VOCs & SVOCs						
Chlorobenzene		ND	ND	Maps 5.4-13a, b	Map 5.4-13e	ND*
1,2-Dichlorobenzene		ND*	ND	Maps 5.4-13a, c, d	Map 5.4-13e	ND
1,2-Dichloroethane		ND*	ND	ND	Map 5.4-14a	Map 5.4-14b
1,1,2-Trichloroethane		ND	ND	ND*	Map 5.4-14a	Map 5.4-14b
Chloroethane		ND	ND	Maps 5.4-15a, b, d	Map 5.4-15e	Map 5.4-15f
Vinyl Chloride		ND	ND	Maps 5.4-15a, c, d	Map 5.4-15e	Map 5.4-15f
Chloroform		ND*	ND	Maps 5.4-16a, b	Map 5.4-16c	Map 5.4-16d
Methylene Chloride		ND	ND	Maps 5.4-16a, b	Map 5.4-16c	Map 5.4-16d
cis-1,2-Dichloroethene		Map 5.4-17a	ND*	Maps 5.4-17b, d	Map 5.4-17e	Map 5.4-17f, g
Trichloroethene		Map 5.4-17a	ND	Maps 5.4-17b-d	Map 5.4-17e	Map 5.4-17f, g
1,2,4-Trimethylbenzene		NS	NS	Maps 5.4-18a, c, d	Map 5.4-18e	NS
Carbon Disulfide		ND*	ND	Maps 5.4-18a, b, d	Map 5.4-18e	ND
Total BTEX		Map 5.4-19a	Map 5.4-19b	Maps 5.4-19c-f	Map 5.4-19g	Map 5.4-19h
TPH						
TPH	Figures 5.4-3a-f	Map 5.4-6a	Map 5.4-6b	Map 5.4-6c	Map 5.4-6d	NS

Notes:

BTEX - benzene, toluene, ethylbenzene, and total xylene
cPAH - carcenogenic polycyclic aromatic hydrocarbon
DDx - 2,4' and 4,4'-DDD, -DDE, -DDT
ND - indicates that a map was not created for the given river mile because the analyte was not detected in this reach.
ND* - indicates that a map was not created for the given river mile because the analyte in this reach was detected in only 2 or fewer points.
NS - indicates that a map was not created for the given river mile because the analyte was not sampled in TZW in this reach.
PAH - polycyclic aromatic hydrocarbon
SVOC - semivolatile organic compound
TPH - total petroleum hydrocarbons
VOC - volatile organic compound

Table 5.5-1. Summary Statistics for Indicator Chemicals for Fish Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Black crappie (fillet without skin)																
Metals																
Mercury	mg/kg-Wet	4	4	100	0.067	0.101	FZ0609	0.086	0.088 V	0.0994 V	0.067	0.101	FZ0609	0.086	0.088 V	0.0994 V
Black crappie (fillet)																
Conventionals																
Lipids	percent-Wet	4	4	100	0.99	1.8	FZ0306	1.4	1.4 V	1.8 V	0.99	1.8	FZ0306	1.4	1.4 V	1.8 V
Metals																
Arsenic	mg/kg-Wet	4	4	100	0.1 J	0.18 T	FZ0609	0.14	0.14 V	0.18 V	0.1 J	0.18 T	FZ0609	0.14	0.14 V	0.18 V
Cadmium	mg/kg-Wet	4	2	50	0.001 JT	0.001 JT	FZ0306; FZ0609	0.001	0.001 JV	0.001 JV	0.001 JT	0.001 JT	FZ0306; FZ0609	0.00075	0.00075 JV	0.001 JV
Chromium	mg/kg-Wet	4	2	50	0.14	0.28	FZ0306	0.21	0.21 V	0.27 V	0.06 U	0.28	FZ0306	0.12	0.085 V	0.26 V
Copper	mg/kg-Wet	4	4	100	0.166	0.184 T	FZ0306; FZ0609	0.178	0.181 V	0.184 V	0.166	0.184 T	FZ0306; FZ0609	0.178	0.181 V	0.184 V
Lead	mg/kg-Wet	4	0	0	--	--	--	--	--	--	0.001 U	0.005 U	FZ0306	0.00113	0.00075 UV	0.00228 UV
Nickel	mg/kg-Wet	4	2	50	0.057	0.064	FZ0306	0.0605	0.0605 V	0.0637 V	0.001 U	0.064	FZ0306	0.0305	0.0288 V	0.063 V
Zinc	mg/kg-Wet	4	4	100	7.45	9.03	FZ0306	8.23	8.22 V	8.98 V	7.45	9.03	FZ0306	8.23	8.22 V	8.98 V
PCB Aroclors																
Aroclors	µg/kg-Wet	4	4	100	19.6 T	32 T	FZ0609	24.1	22.4 V	30.6 V	19.6 T	32 T	FZ0609	24.1	22.4 V	30.6 V
Total PCBs[d]																
Total PCBs	µg/kg-Wet	4	4	100	19.6 T	32 T	FZ0609	24.1	22.4 V	30.6 V	19.6 T	32 T	FZ0609	24.1	22.4 V	30.6 V
Pesticides																
Aldrin	µg/kg-Wet	4	0	0	--	--	--	--	--	--	1 U	1 U	FZ0306; FZ0609	0.5	0.5 UV	0.5 UV
Dieldrin	µg/kg-Wet	4	0	0	--	--	--	--	--	--	1 U	1 U	FZ0306; FZ0609	0.5	0.5 UV	0.5 UV
gamma-Hexachlorocyclohexane	µg/kg-Wet	4	0	0	--	--	--	--	--	--	1 U	1 U	FZ0306; FZ0609	0.5	0.5 UV	0.5 UV
Total Chlordanes	µg/kg-Wet	4	1	25	1.1 NJT	1.1 NJT	FZ0306	1.1	1.1 NJT	1.1 NJT	1.1 NJT	1.6 UT	FZ0609	0.81	0.78 UV	1.1 JV
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	4	4	100	1.8 JT	2.7 JT	FZ0609	2.2	2.2 JV	2.7 JV	1.8 JT	2.7 JT	FZ0609	2.2	2.2 JV	2.7 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	4	4	100	8.8 JT	13.7 NJT	FZ0609	11.4	11.5 JV	13.5 JV	8.8 JT	13.7 NJT	FZ0609	11.4	11.5 JV	13.5 JV
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	4	4	100	5.5 T	7.8 T	FZ0609	6.7	6.8 V	7.7 V	5.5 T	7.8 T	FZ0609	6.7	6.8 V	7.7 V
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	4	4	100	1.5 JT	3.4 NJT	FZ0609	2.4	2.4 JV	3.4 JV	1.5 JT	3.4 NJT	FZ0609	2.4	2.4 JV	3.4 JV
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-Wet	4	0	0	--	--	--	--	--	--	1 U	1 U	FZ0306; FZ0609	0.5	0.5 UV	0.5 UV
Black crappie (whole body)																
Conventionals																
Lipids	percent-Wet	4	4	100	3.33 T	7.5 T	FZ0609	5.26	5.1 V	7.35 V	3.33 T	7.5 T	FZ0609	5.26	5.1 V	7.35 V
Metals																
Arsenic	mg/kg-Wet	4	4	100	0.185 T	0.42	FZ0609	0.279	0.255 V	0.401 V	0.185 T	0.42	FZ0609	0.279	0.255 V	0.401 V
Cadmium	mg/kg-Wet	4	4	100	0.003 J	0.006 J	FZ0609	0.00388	0.00325 JV	0.00563 JV	0.003 J	0.006 J	FZ0609	0.00388	0.00325 JV	0.00563 JV
Chromium	mg/kg-Wet	4	0	0	--	--	--	--	--	--	0.08 U	0.09 U	FZ0609	0.041	0.04 UV	0.044 UV
Copper	mg/kg-Wet	4	4	100	0.688	0.946	FZ0306	0.82	0.822 V	0.943 V	0.688	0.946	FZ0306	0.82	0.822 V	0.943 V
Lead	mg/kg-Wet	4	1	25	0.0185 JT	0.0185 JT	FZ0306	0.0185	0.0185 JT	0.0185 JT	0.004 UJ	0.0185 JT	FZ0306	0.00663	0.003 UJV	0.0163 JV
Mercury	mg/kg-Wet	4	4	100	0.033	0.044	FZ0609	0.0394	0.0403 V	0.044 V	0.033	0.044	FZ0609	0.0394	0.0403 V	0.044 V
Nickel	mg/kg-Wet	4	4	100	0.33 JT	0.357 J	FZ0609	0.343	0.343 JV	0.356 JV	0.33 JT	0.357 J	FZ0609	0.343	0.343 JV	0.356 JV
Zinc	mg/kg-Wet	4	4	100	14.2 T	16.8	FZ0609	15.4	15.3 V	16.6 V	14.2 T	16.8	FZ0609	15.4	15.3 V	16.6 V
PCB Aroclors																
Aroclors	µg/kg-Wet	4	4	100	85 T	250 T	FZ0609	134	99.5 V	229 V	85 T	250 T	FZ0609	134	99.5 V	229 V

Table 5.5-1. Summary Statistics for Indicator Chemicals for Fish Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
PCB Congeners																
Total PCB Congeners	pg/g-Wet	4	4	100	103000 JT	301000 JT	FZ0609	164000	126000 JV	278000 JV	103000 JT	301000 JT	FZ0609	164000	126000 JV	278000 JV
Total PCBs[c]																
Total PCBs	µg/kg-Wet	4	4	100	103 JT	301 JT	FZ0609	164	126 JV	278 JV	103 JT	301 JT	FZ0609	164	126 JV	278 JV
PCDD/F Homologs																
Total PCDD/F	pg/g-Wet	4	4	100	7.67 T	16.1 T	FZ0306	10.7	9.45 V	15.3 V	7.67 T	16.1 T	FZ0306	10.7	9.45 V	15.3 V
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g-Wet	4	4	100	1.1 JT	1.26 JT	FZ0306	1.18	1.18 V	1.25 JV	1.1 JT	1.26 JT	FZ0306	1.18	1.18 V	1.25 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	4	4	100	1.67 JT	3.22 T	FZ0609	2.16	1.88 V	3.05 V	1.67 JT	3.22 T	FZ0609	2.16	1.88 V	3.05 V
Pesticides																
Aldrin	µg/kg-Wet	4	0	0	--	--	--	--	--	--	1 UJ	1.3 U	FZ0609	0.54	0.5 UJV	0.63 UJV
Dieldrin	µg/kg-Wet	4	1	25	2.5 NJ	2.5 NJ	FZ0609	2.5	2.5 NJ	2.5 NJ	1.8 U	14 UT	FZ0609	2.8	1.7 JV	6.3 JV
gamma-Hexachlorocyclohexane	µg/kg-Wet	4	0	0	--	--	--	--	--	--	1 U	1.6 U	FZ0306	0.64	0.63 UV	0.79 UV
Total Chlordanes	µg/kg-Wet	4	4	100	2.1 NJT	9.2 NJT	FZ0306	6.3	7 JV	9.2 JV	2.1 NJT	9.2 NJT	FZ0306	6.3	7 JV	9.2 JV
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	4	4	100	7.9 JT	18.5 JT	FZ0609	12.1	11 JV	17.4 JV	7.9 JT	18.5 JT	FZ0609	12.1	11 JV	17.4 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	4	4	100	59.2 NJT	99.6 NJT	FZ0609	80.2	81 JV	99.5 JV	59.2 NJT	99.6 NJT	FZ0609	80.2	81 JV	99.5 JV
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	4	4	100	37 JT	80.5 T	FZ0609	55.6	52.5 V	78.5 V	37 JT	80.5 T	FZ0609	55.6	52.5 V	78.5 V
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	4	3	75	13.3 NJT	21.6 NJT	FZ0609	16.6	15 NJT	20.9 JV	6.9 UT	21.6 NJT	FZ0609	13.3	14.2 JV	20.6 JV
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-Wet	4	2	50	5.7 NT	8.1 N	FZ0609	6.9	6.9 V	8 V	1 U	8.1 N	FZ0609	3.7	3.1 V	7.7 V
Brown bullhead (fillet without skin)																
Conventionals																
Lipids	percent-Wet	6	6	100	0.93	1.3	FZ0306	1.1	1 V	1.3 V	0.93	1.3	FZ0306	1.1	1 V	1.3 V
Metals																
Arsenic	mg/kg-Wet	6	6	100	0.02 J	0.02 J	FZ0306; FZ0609	0.02	0.02 JV	0.02 JV	0.02 J	0.02 J	FZ0306; FZ0609	0.02	0.02 JV	0.02 JV
Cadmium	mg/kg-Wet	6	5	83.3	0.001 J	0.001 J	FZ0306; FZ0609	0.001	0.001 J	0.001 JV	0.001 J	0.008 U	FZ0609	0.0015	0.001 JV	0.00325 JV
Chromium	mg/kg-Wet	6	3	50	0.05 J	0.23	FZ0306	0.12	0.08 J	0.22 JV	0.05 J	0.23	FZ0306	0.073	0.04 JV	0.19 JV
Copper	mg/kg-Wet	6	6	100	0.203	0.292	FZ0306	0.251	0.252 V	0.283 V	0.203	0.292	FZ0306	0.251	0.252 V	0.283 V
Lead	mg/kg-Wet	6	0	0	--	--	--	--	--	--	0.002 U	0.008 U	FZ0609	0.00183	0.00125 UV	0.00363 UV
Mercury	mg/kg-Wet	6	6	100	0.035	0.094	FZ0609	0.0608	0.059 V	0.089 V	0.035	0.094	FZ0609	0.0608	0.059 V	0.089 V
Nickel	mg/kg-Wet	6	6	100	0.003 J	0.055	FZ0306	0.0205	0.014 JV	0.0485 JV	0.003 J	0.055	FZ0306	0.0205	0.014 JV	0.0485 JV
Zinc	mg/kg-Wet	6	6	100	3.96 J	6.49 J	FZ0306	5.23	5.32 JV	6.25 JV	3.96 J	6.49 J	FZ0306	5.23	5.32 JV	6.25 JV
PCB Aroclors																
Aroclors	µg/kg-Wet	6	6	100	37 T	1300 JT	FZ0609	354	86.5 V	1120 JV	37 T	1300 JT	FZ0609	354	86.5 V	1120 JV
Total PCBs[d]																
Total PCBs	µg/kg-Wet	6	6	100	37 T	1300 JT	FZ0609	354	86.5 V	1120 JV	37 T	1300 JT	FZ0609	354	86.5 V	1120 JV

Table 5.5-1. Summary Statistics for Indicator Chemicals for Fish Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Pesticides																
Aldrin	µg/kg-Wet	6	0	0	--	--	--	--	--	--	1 U	13 UT	FZ0609	1.8	0.5 UV	5.4 UV
Dieldrin	µg/kg-Wet	6	1	17	2.1 NJ	2.1 NJ	FZ0306	2.1	2.1 NJ	2.1 NJ	1 U	14 UT	FZ0609	2.1	1.3 UV	5.8 JV
gamma-Hexachlorocyclohexane	µg/kg-Wet	6	0	0	--	--	--	--	--	--	1 U	9.6 UT	FZ0609	1.5	0.5 UV	4.1 UV
Total Chlordanes	µg/kg-Wet	6	4	67	1.2 NJT	1.6 NJT	FZ0306; FZ0609	1.4	1.5 JV	1.6 JV	1.2 NJT	20 UT	FZ0609	3	1.6 JV	8 UV
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	6	4	67	2.7 JT	3.8 JT	FZ0306	3.1	3 JV	3.7 JV	2.7 JT	8.6 UT	FZ0609	3.5	3.5 JV	4.3 UV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	6	6	100	12 JT	26.5 JT	FZ0609	20.9	21.4 JV	26.4 JV	12 JT	26.5 JT	FZ0609	20.9	21.4 JV	26.4 JV
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	6	6	100	6.6 JT	26.5 JT	FZ0609	13.5	11.5 JV	23.6 JV	6.6 JT	26.5 JT	FZ0609	13.5	11.5 JV	23.6 JV
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	6	4	66.7	5.6 NJT	11.5 NJT	FZ0609	7.98	7.4 JV	10.9 JV	5.6 NJT	11.5 NJT	FZ0609	6.42	6.35 JV	10.6 JV
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	6	0	0	--	--	--	--	--	--	33 UT	80 UT	FZ0306	24	17 UV	40 UV
High Molecular Weight PAH	µg/kg-Wet	6	1	17	110 T	110 T	FZ0306	110	110 T	110 T	33 UT	110 T	FZ0306	44	32 UV	96 V
Low Molecular Weight PAH	µg/kg-Wet	6	2	33	110 JT	140 T	FZ0306	130	130 JV	140 JV	33 UT	140 T	FZ0306	61	41 UV	130 JV
Naphthalene	µg/kg-Wet	6	0	0	--	--	--	--	--	--	33 UT	73 UT	FZ0306	26	25 UV	36 UV
Phenanthrene	µg/kg-Wet	6	2	33	110 JT	140 T	FZ0306	130	130 JV	140 JV	33 UT	140 T	FZ0306	58	32 UV	130 JV
Total BaPEq	µg/kg-Wet	6	0	0	--	--	--	--	--	--	33 UT	80 UT	FZ0306	24.1	16.5 UV	39.6 UV
Total cPAHs	µg/kg-Wet	6	0	0	--	--	--	--	--	--	33 UT	80 UT	FZ0306	24	17 UV	40 UV
Total PAHs	µg/kg-Wet	6	2	33	110 JT	250 T	FZ0306	180	180 JV	240 JV	33 UT	250 T	FZ0306	79	41 UV	220 JV
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg-Wet	6	1	17	100 T	100 T	FZ0306	100	100 T	100 T	100 T	220 UT	FZ0609	68	50 UV	110 V
Butylbenzyl phthalate	µg/kg-Wet	6	0	0	--	--	--	--	--	--	330 U	330 U	FZ0306; FZ0609	170	170 UV	170 UV
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg-Wet	6	0	0	--	--	--	--	--	--	330 U	330 U	FZ0306; FZ0609	170	170 UV	170 UV
Hexachlorobenzene	µg/kg-Wet	6	0	0	--	--	--	--	--	--	1 UT	6.4 UT	FZ0609	1.2	0.5 UV	2.9 UV
Phenols																
Pentachlorophenol	µg/kg-Wet	6	0	0	--	--	--	--	--	--	170 UT	190 UT	FZ0306	87	85 UV	93 UV
Brown bullhead (whole body)																
Conventionals																
Lipids	percent-Wet	6	6	100	1.5 T	3.8	FZ0609	2.4	2.4 V	3.5 V	1.5 T	3.8	FZ0609	2.4	2.4 V	3.5 V
Metals																
Arsenic	mg/kg-Wet	6	6	100	0.04 J	0.08 J	FZ0609	0.0558	0.055 JV	0.075 JV	0.04 J	0.08 J	FZ0609	0.0558	0.055 JV	0.075 JV
Cadmium	mg/kg-Wet	6	6	100	0.008 J	0.014	FZ0306	0.0116	0.0125 JV	0.014 V	0.008 J	0.014	FZ0306	0.0116	0.0125 JV	0.014 V
Chromium	mg/kg-Wet	6	6	100	0.39	1.32	FZ0306	0.73	0.565 V	1.26 V	0.39	1.32	FZ0306	0.73	0.565 V	1.26 V
Copper	mg/kg-Wet	6	6	100	0.586	0.798	FZ0609	0.69	0.691 V	0.792 V	0.586	0.798	FZ0609	0.69	0.691 V	0.792 V
Lead	mg/kg-Wet	6	5	83.3	0.023	0.0435 T	FZ0609	0.0289	0.026	0.04 V	0.014 U	0.0435 T	FZ0609	0.0253	0.026 V	0.0391 V
Mercury	mg/kg-Wet	6	6	100	0.025 T	0.054	FZ0306	0.0367	0.033 V	0.052 V	0.025 T	0.054	FZ0306	0.0367	0.033 V	0.052 V
Nickel	mg/kg-Wet	6	5	83.3	0.213 J	0.321 J	FZ0306	0.264	0.261 J	0.315 JV	0.213 J	0.328 UJT	FZ0609	0.248	0.249 JV	0.313 JV
Zinc	mg/kg-Wet	6	6	100	12.7	15.6	FZ0609	14.1	14.3 V	15.4 V	12.7	15.6	FZ0609	14.1	14.3 V	15.4 V
PCB Aroclors																
Aroclors	µg/kg-Wet	6	6	100	67 T	1700 T	FZ0609	404	128 V	1350 JV	67 T	1700 T	FZ0609	404	128 V	1350 JV
PCB Congeners																
Total PCB Congeners	pg/g-Wet	6	6	100	83300 JT	1950000 JT	FZ0609	511000	251000 JV	1550000 JV	83300 JT	1950000 JT	FZ0609	511000	251000 JV	1550000 JV
Total PCBs[c]																
Total PCBs	µg/kg-Wet	6	6	100	83.3 JT	1950 JT	FZ0609	511	251 JV	1550 JV	83.3 JT	1950 JT	FZ0609	511	251 JV	1550 JV

Table 5.5-1. Summary Statistics for Indicator Chemicals for Fish Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
PCDD/F Homologs																
Total PCDD/F	pg/g-Wet	6	6	100	12.2 T	17.8 T	FZ0609	14.2	13.6 V	17.3 V	12.2 T	17.8 T	FZ0609	14.2	13.6 V	17.3 V
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g-Wet	6	6	100	1.29 JT	2.12 JT	FZ0609	1.58	1.53 V	2.02 JV	1.29 JT	2.12 JT	FZ0609	1.58	1.53 V	2.02 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	6	6	100	1.6 T	6.04 T	FZ0609	3.47	2.91 V	5.76 V	1.6 T	6.04 T	FZ0609	3.47	2.91 V	5.76 V
Pesticides																
Aldrin	µg/kg-Wet	6	0	0	--	--	--	--	--	--	1 U	13 UT	FZ0609	1.8	0.5 UV	5.4 UV
Dieldrin	µg/kg-Wet	6	2	33	1.2 NJ	2.6 NJ	FZ0306	1.9	1.9 JV	2.5 JV	1.2 NJ	14 UT	FZ0609	2.5	1.6 JV	5.9 JV
gamma-Hexachlorocyclohexane	µg/kg-Wet	6	3	50	1.4 N	1.9 N	FZ0609	1.6	1.5 N	1.9 V	1 U	9.6 UT	FZ0609	2	1.7 V	4.1 UV
Total Chlordanes	µg/kg-Wet	6	4	67	1.8 NJT	67 T	FZ0306	20	5.5 JV	58 JV	1.8 NJT	67 T	FZ0306	16	5.9 JV	53 V
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	6	6	100	6.9 JT	25 NJT	FZ0609	11	8.5 JV	22 JV	6.9 JT	25 NJT	FZ0609	11	8.5 JV	22 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	6	6	100	37.5 JT	141 NJT	FZ0609	85.6	92.8 JV	131 JV	37.5 JT	141 NJT	FZ0609	85.6	92.8 JV	131 JV
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	6	6	100	29.5 JT	70 T	FZ0306	47.4	47.5 JV	67 V	29.5 JT	70 T	FZ0306	47.4	47.5 JV	67 V
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	6	5	83.3	8.6 NJT	58 NJT	FZ0609	32.2	33.1 NJT	54 JV	6.9 UT	58 NJT	FZ0609	27.4	28.1 JV	53 JV
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	6	0	0	--	--	--	--	--	--	33 UT	33 UT	FZ0306; FZ0609	17	17 UV	17 UV
High Molecular Weight PAH	µg/kg-Wet	6	1	17	40 T	40 T	FZ0306	40	40 T	40 T	33 UT	49 UT	FZ0609	23	20 UV	36 V
Low Molecular Weight PAH	µg/kg-Wet	6	1	17	60 T	60 T	FZ0306	60	60 T	60 T	33 UT	60 T	FZ0306	24	17 UV	49 V
Naphthalene	µg/kg-Wet	6	0	0	--	--	--	--	--	--	33 UT	33 UT	FZ0306; FZ0609	17	17 UV	17 UV
Phenanthrene	µg/kg-Wet	6	1	17	60 T	60 T	FZ0306	60	60 T	60 T	33 UT	60 T	FZ0306	24	17 UV	49 V
Total BaPEq	µg/kg-Wet	6	0	0	--	--	--	--	--	--	33 UT	33 UT	FZ0306; FZ0609	16.5	16.5 UV	16.5 UV
Total cPAHs	µg/kg-Wet	6	0	0	--	--	--	--	--	--	33 UT	33 UT	FZ0306; FZ0609	17	17 UV	17 UV
Total PAHs	µg/kg-Wet	6	1	17	100 T	100 T	FZ0306	100	100 T	100 T	33 UT	100 T	FZ0306	33	20 UV	81 V
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg-Wet	6	1	17	2700 T	2700 T	FZ0306	2700	2700 T	2700 T	98 UT	2700 T	FZ0306	490	50 UV	2000 V
Butylbenzyl phthalate	µg/kg-Wet	6	0	0	--	--	--	--	--	--	330 U	330 U	FZ0306; FZ0609	170	170 UV	170 UV
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg-Wet	6	0	0	--	--	--	--	--	--	330 U	330 U	FZ0306; FZ0609	170	170 UV	170 UV
Hexachlorobenzene	µg/kg-Wet	6	0	0	--	--	--	--	--	--	1 UT	33 UT	FZ0306; FZ0609	9.2	9.9 UV	17 UV
Phenols																
Pentachlorophenol	µg/kg-Wet	6	0	0	--	--	--	--	--	--	160 UT	190 UT	FZ0609	87	85 UV	94 UV
Carp (fillet without skin)																
Metals																
Mercury	mg/kg-Wet	6	6	100	0.074	0.191	FZ0306	0.127	0.115 V	0.19 V	0.074	0.191 T	FZ0306	0.127	0.115 V	0.19 V
Carp (fillet)																
Conventionals																
Lipids	percent-Wet	15	15	100	3.3 T	9.51	CP0004	6.03	5.72	9.37 V	3.3 T	9.51	CP0004	6.03	5.72	9.37 V
Metals																
Arsenic	mg/kg-Wet	15	15	100	0.04 J	0.21 J	CP0004	0.0967	0.075 JT	0.196 V	0.04 J	0.21	CP0004	0.0967	0.075 JT	0.196 V
Cadmium	mg/kg-Wet	15	11	73.3	0.002 J	0.009 J	FZ0609	0.00455	0.004 J	0.008 JV	0.002 J	0.009 J	FZ0609	0.00373	0.0035 JT	0.0076 JV
Chromium	mg/kg-Wet	15	4	26.7	0.12 J	1.49 J	FZ0306	0.628	0.45 V	1.37 V	0.07 U	1.49	FZ0306	0.204	0.05 UT	0.937 V
Copper	mg/kg-Wet	15	15	100	0.313	0.686	CP0004	0.459	0.428 T	0.656 V	0.313	0.686	CP0004	0.459	0.428 T	0.656 V
Lead	mg/kg-Wet	15	11	73.3	0.012	0.356	CP0812	0.0764	0.0516 T	0.217 V	0.004 U	0.356	CP0812	0.0567	0.0472	0.161 V
Mercury	mg/kg-Wet	9	9	100	0.0411	0.0747	CP0004	0.0607	0.0615	0.0741 V	0.0411	0.0747	CP0004	0.0607	0.0615	0.0741 V
Nickel	mg/kg-Wet	15	14	93.3	0.012 J	0.396 J	CP0408	0.0706	0.0425 JV	0.195 V	0.002 U	0.396	CP0408	0.0659	0.04 J	0.18 V
Zinc	mg/kg-Wet	15	15	100	17.4 J	31 J	CP0408	25.7	24.8	30.7 V	17.4 J	31	CP0408	25.7	24.8	30.7 V

Table 5.5-1. Summary Statistics for Indicator Chemicals for Fish Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Butyltins																
Tributyltin ion	µg/kg-Wet	9	8	89	2.6 J	11 J	CP0812	5.4	4.4 JV	9.6 V	1.8 U	11	CP0812	4.9	4 JT	9.4 V
PCB Aroclors																
Aroclors	µg/kg-Wet	6	6	100	350 T	1200 T	FZ0609	812	865 V	1200 JV	350 T	1200 JT	FZ0609	812	865 V	1200 JV
PCB Congeners																
Total PCB Congeners	pg/g-Wet	9	9	100	210000 JT	19700000 JT	CP0408	2520000	308000 JT	12100000 JV	210000 JT	19700000 JT	CP0408	2520000	308000 JT	12100000 JV
Total PCBs[e]																
Total PCBs	µg/kg-Wet	15	15	100	210 JT	19700 JT	CP0408	1840	431 JT	6750 JV	210 JT	19700 JT	CP0408	1840	431 JT	6750 JV
PCDD/F Homologs																
Total PCDD/F	pg/g-Wet	9	9	100	16.6 JT	43.8 JT	CP0408	29.6	26.5 JT	43.2 JV	16.6 JT	43.8 JT	CP0408	29.6	26.5 JT	43.2 JV
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g-Wet	9	9	100	1.88 JT	4.37 JT	CP0408	2.83	2.44 JT	4.3 JV	1.88 JT	4.37 JT	CP0408	2.83	2.44 JT	4.3 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	9	9	100	0.386 T	8.02 T	CP0408	1.59	0.562 T	5.8 V	0.386 T	8.02 T	CP0408	1.59	0.562 T	5.8 V
Pesticides																
Aldrin	µg/kg-Wet	15	9	60	0.046 J	0.119 J	CP0408	0.0845	0.079 J	0.117 JV	0.046 J	13 UT	FZ0609	1.34	0.114 J	5.38 UV
Dieldrin	µg/kg-Wet	15	9	60	1.29 T	2.3 T	CP0408	1.68	1.62	2.19 V	1.29 T	14 UT	FZ0609	2.48	2 UT	5.53 UV
gamma-Hexachlorocyclohexane	µg/kg-Wet	15	8	53.3	0.0196 JT	0.0356 JT	CP0408	0.0259	0.0256 JV	0.0339 JV	0.0196 JT	9.6 UT	FZ0609	1.19	0.0308 J	4.8 UV
Total Chlordanes	µg/kg-Wet	15	10	66.7	4.3 NJT	12 NJT	CP0408	9.15	9.09 JV	11.9 JV	4.3 NJT	20 UJT	FZ0609	8.26	8.64 JT	11.9 JV
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	15	15	100	11.5 T	202 T	CP0408	48.9	26.5 JT	139 V	11.5 T	202 T	CP0408	48.9	26.5 JT	139 V
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	15	15	100	47.3 JT	494 JT	CP0408	151	132 JT	324 V	47.3 JT	494 T	CP0408	151	132 JT	324 V
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	15	15	100	35.4 T	253 T	CP0408	93	85.1 T	170 JV	35.4 T	253 T	CP0408	93	85.1 T	170 JV
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	15	10	66.7	0.328 JT	63 JT	FZ0306	13.5	1.39 V	52.5 JV	0.328 JT	63 NJT	FZ0306	10.1	3.45 UT	46.6 JV
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	9	0	0	--	--	--	--	--	--	0.081 U	0.081 U	CP0004; CP0408; CP0812	0.0405	0.0405 U	0.0405 UV
High Molecular Weight PAH	µg/kg-Wet	9	9	100	0.64 T	9.2 T	CP0408	5.1	6.2 T	9 V	0.64 T	9.2 T	CP0408	5.1	6.2 T	9 V
Low Molecular Weight PAH	µg/kg-Wet	9	9	100	11 T	130 T	CP0408	42	35 T	110 V	11 T	130 T	CP0408	42	35 T	110 V
Naphthalene	µg/kg-Wet	9	4	44	2.6	6.8	CP0408	4.8	4.9 V	6.8 V	1.8 U	6.8	CP0408	2.7	1.1 U	6.7 V
Phenanthrene	µg/kg-Wet	9	5	56	4.9	13	CP0408	8.8	7.5	13 V	1.7 U	13	CP0408	5.5	4.9	13 V
Total BaPEq	µg/kg-Wet	9	1	11.1	0.149 JT	0.149 JT	CP0004	0.149	0.149 JT	0.149 JT	0.081 UT	0.149 JT	CP0004	0.0526	0.0405 UT	0.106 JV
Total cPAHs	µg/kg-Wet	9	1	11.1	0.98 JT	0.98 JT	CP0004	0.98	0.98 JT	0.98 JT	0.081 UT	0.98 JT	CP0004	0.145	0.0405 UT	0.604 JV
Total PAHs	µg/kg-Wet	9	9	100	11 T	140 T	CP0408	47	41 T	120 V	11 T	140 T	CP0408	47	41 T	120 V
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg-Wet	9	0	0	--	--	--	--	--	--	66 U	66 U	CP0004; CP0408; CP0812	33	33 U	33 UV
Butylbenzyl phthalate	µg/kg-Wet	9	0	0	--	--	--	--	--	--	7.3 U	7.3 U	CP0004; CP0408; CP0812	3.7	3.7 U	3.7 UV
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg-Wet	9	5	56	23 J	37 T	CP0812	30	30 J	36 JV	22 U	37 T	CP0812	22	23 J	36 JV
Hexachlorobenzene	µg/kg-Wet	15	11	73.3	1.5	140 T	FZ0609	14.9	2.28	72.1 V	1.5	140 T	FZ0609	11.6	2.22	44.9 V
Phenols																
Pentachlorophenol	µg/kg-Wet	9	0	0	--	--	--	--	--	--	30 U	30 U	CP0004; CP0408; CP0812	15	15 U	15 UV

Table 5.5-1. Summary Statistics for Indicator Chemicals for Fish Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Carp (whole body)																
Conventionals																
Lipids	percent-Wet	15	15	100	5.6 T	13 T	FZ0609	8.84	8.49 T	12.2 V	5.6 T	13 T	FZ0609	8.84	8.49 T	12.2 V
Metals																
Arsenic	mg/kg-Wet	15	15	100	0.034 JT	0.23 T	CP0004	0.133	0.125 JT	0.223 V	0.034 JT	0.23 T	CP0004	0.133	0.125 JT	0.223 V
Cadmium	mg/kg-Wet	15	15	100	0.034 T	0.108	FZ0306	0.06	0.061 JT	0.0905 V	0.034 T	0.108	FZ0306	0.06	0.061 JT	0.0905 V
Chromium	mg/kg-Wet	15	15	100	0.23 T	2.02	FZ0306	0.84	0.74	1.66 V	0.23 T	2.02	FZ0306	0.84	0.74	1.66 V
Copper	mg/kg-Wet	15	15	100	0.897 T	1.42 T	CP0004; FZ0306	1.12	1.08 T	1.42 V	0.897 T	1.42 T	CP0004; FZ0306	1.12	1.08 T	1.42 V
Lead	mg/kg-Wet	15	15	100	0.0823 T	1.09 T	CP0812	0.203	0.133 JT	0.472 V	0.0823 T	1.09 T	CP0812	0.203	0.133 JT	0.472 V
Mercury	mg/kg-Wet	16	16	100	0.029	0.0571 T	CP0004	0.0447	0.0456 V	0.0558 V	0.029	0.0571 T	CP0004	0.0447	0.0456 V	0.0558 V
Nickel	mg/kg-Wet	15	15	100	0.28 JT	1.37 J	FZ0306	0.562	0.51 JT	0.995 JV	0.28 JT	1.37 J	FZ0306	0.562	0.51 JT	0.995 JV
Zinc	mg/kg-Wet	15	15	100	71.2 T	113 T	CP0408	91.9	89.9 T	112 V	71.2 T	113 T	CP0408	91.9	89.9 T	112 V
Butyltins																
Tributyltin ion	µg/kg-Wet	9	9	100	2.7 JT	8.6 T	CP0812	5.6	5.9 JT	8.4 JV	2.7 JT	8.6 T	CP0812	5.6	5.9 JT	8.4 JV
PCB Aroclors																
Aroclors	µg/kg-Wet	6	6	100	230 T	6500 JT	FZ0306	1640	850 V	5150 JV	230 T	6500 JT	FZ0306	1640	850 V	5150 JV
PCB Congeners																
Total PCB Congeners	pg/g-Wet	15	15	100	295000 JT	25100000 JT	CP0408	2760000	574000 JT	13200000 JV	295000 JT	25100000 JT	CP0408	2760000	574000 JT	13200000 JV
Total PCBs[c]																
Total PCBs	µg/kg-Wet	15	15	100	295 JT	25100 JT	CP0408	2760	574 JT	13200 JV	295 JT	25100 JT	CP0408	2760	574 JT	13200 JV
PCDD/F Homologs																
Total PCDD/F	pg/g-Wet	15	15	100	26.1 T	90.7 JT	CP0408	55.7	53.3 JT	83.8 JV	26.1 T	90.7 JT	CP0408	55.7	53.3 JT	83.8 JV
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g-Wet	15	15	100	1.98 T	8.53 T	FZ0306	4.11	3.35 JT	6.97 JV	1.98 T	8.53 T	FZ0306	4.11	3.35 JT	6.97 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	15	15	100	0.57 T	16.2 T	FZ0306	4.55	3.65 T	12.9 V	0.57 T	16.2 T	FZ0306	4.55	3.65 T	12.9 V
Pesticides																
Aldrin	µg/kg-Wet	15	9	60	0.059 JT	0.163 JT	CP0812	0.12	0.11 JT	0.162 JV	0.059 JT	13 UT	FZ0306	1.17	0.16 JT	5.42 UV
Dieldrin	µg/kg-Wet	15	9	60	1.9 T	3 T	CP0408	2.32	2.2 T	2.89 V	1 UJ	14 UT	FZ0306	2.73	2.35 T	5.57 UV
gamma-Hexachlorocyclohexane	µg/kg-Wet	15	9	60	0.0169 JT	0.0459 JT	CP0408	0.0312	0.0343 JT	0.0425 JV	0.0169 JT	9.6 UT	FZ0306; FZ0609	1.2	0.0374 JT	4.8 UV
Total Chlordanes	µg/kg-Wet	15	12	80	3.2 NJT	15.4 JT	CP0408	12	13 JV	15.3 JV	3.2 NJT	20 UT	FZ0306	10.8	12 JT	15.3 JV
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	15	15	100	16.7 T	285 T	CP0408	74.3	38 JT	205 JV	16.7 T	285 T	CP0408	74.3	38 JT	205 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	15	15	100	73.3 JT	615 JT	CP0408	208	156 JT	486 JV	73.3 JT	615 JT	CP0408	208	156 JT	486 JV
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	15	15	100	56.5 JT	318 T	CP0408	129	105 JT	277 JV	56.5 JT	318 T	CP0408	129	105 JT	277 JV
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	15	10	66.7	0.105 JT	47 NJT	FZ0306	7.29	0.384 JV	31.4 JV	0.105 JT	47 NJT	FZ0306	6.01	3.45 UT	22.8 JV
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	15	1	6.67	0.54 JT	0.54 JT	CP0812	0.54	0.54 JT	0.54 JT	0.081 UT	33 UT	FZ0306; FZ0609	6.68	0.65 UT	16.5 UV
High Molecular Weight PAH	µg/kg-Wet	15	9	60	0.33 T	31 JT	CP0408	8	6 T	23 JV	0.33 T	33 UT	FZ0306; FZ0609	11	12 T	21 JV
Low Molecular Weight PAH	µg/kg-Wet	15	11	73.3	11 JT	222 JT	FZ0609	79	50 T	201 JV	11 JT	222 JT	FZ0609	62.2	38 JT	193 JV
Naphthalene	µg/kg-Wet	15	7	47	2.5 T	56 JT	FZ0609	20	7.6 T	53 JV	2 UT	56 JT	FZ0609	14	7.6 T	49 JV
Phenanthrene	µg/kg-Wet	15	5	33	2.7 T	16 T	CP0408	10	9.9 T	16 V	2.3 UT	33 UT	FZ0306; FZ0609	10	14 T	17 UV
Total BaPEq	µg/kg-Wet	15	2	13.3	0.336 JT	0.954 JT	CP0812	0.645	0.645 JV	0.923 JV	0.081 UT	33 UT	FZ0306; FZ0609	6.71	0.954 JT	16.5 UV
Total cPAHs	µg/kg-Wet	15	2	13.3	1.4 JT	2.8 JT	CP0812	2.1	2.1 JV	2.73 JV	0.081 UT	33 UT	FZ0306; FZ0609	6.9	1.4 JT	16.5 UV
Total PAHs	µg/kg-Wet	15	11	73.3	11 JT	222 JT	FZ0609	85.5	53 JT	206 JV	11 JT	222 JT	FZ0609	67	42 JT	200 JV

Table 5.5-1. Summary Statistics for Indicator Chemicals for Fish Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg-Wet	15	0	0	--	--	--	--	--	--	66 UT	99 UT	FZ0306	39	33 UT	49 UV
Butylbenzyl phthalate	µg/kg-Wet	15	0	0	--	--	--	--	--	--	7.3 UJT	660 U	FZ0306	130	3.7 UT	330 UV
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg-Wet	15	5	33	26 JT	80 JT	CP0004	39	31 T	70 JV	26 JT	660 U	FZ0306	160	80 JT	330 UV
Hexachlorobenzene	µg/kg-Wet	15	9	60	2 T	4.46 T	CP0408	3	3.09 T	4.01 V	2 T	32 UT	FZ0306	3.85	3.2 UT	7.92 V
Phenols																
Pentachlorophenol	µg/kg-Wet	15	0	0	--	--	--	--	--	--	30 UT	160 UT	FZ0306; FZ0609	41	15 UT	80 UV
Chinook (whole body)																
Conventionals																
Lipids	percent-Wet	15	15	100	1.5	3.6	03R125	2.2	1.8	3.4 V	1.5	3.6	03R125	2.2	1.8	3.4 V
Metals																
Arsenic	mg/kg-Wet	15	15	100	0.0465	0.25	03R125	0.11	0.0663	0.215 V	0.0465	0.25	03R125	0.11	0.0663	0.215 V
Cadmium	mg/kg-Wet	15	15	100	0.00965	0.027	02R102	0.0145	0.0125	0.0249 V	0.00965	0.027	02R102	0.0145	0.0125	0.0249 V
Chromium	mg/kg-Wet	15	3	20	0.09 J	0.19	02R113	0.13	0.11	0.182 V	0.054 UT	0.19	02R113	0.0501	0.0296 U	0.134 V
Copper	mg/kg-Wet	15	15	100	0.755	2.15	02R102	1.13	1.07	1.93 V	0.755	2.15	02R102	1.13	1.07	1.93 V
Lead	mg/kg-Wet	15	3	20	0.01 J	0.015 J	02R102	0.013	0.014 J	0.0149 JV	0.006 UJ	0.0741 U	T02	0.0141	0.0131 U	0.0308 UV
Mercury	mg/kg-Wet	15	15	100	0.0101 J	0.02	02R102	0.0139	0.0124	0.0193 V	0.0101 J	0.02	02R102	0.0139	0.0124	0.0193 V
Nickel	mg/kg-Wet	15	15	100	0.202	0.492 J	02R102	0.294	0.283	0.455 JV	0.202	0.492 J	02R102	0.294	0.283	0.455 JV
Zinc	mg/kg-Wet	15	15	100	24	33.3	02R112; 02R113	29.5	29.6	33.3 V	24	33.3	02R112; 02R113	29.5	29.6	33.3 V
Butyltins																
Tributyltin ion	µg/kg-Wet	8	8	100	1.3 J	4.1 J	T02	2.5	2.1 JV	4.1 JV	1.3 J	4.1 J	T02	2.5	2.1 JV	4.1 JV
PCB Aroclors																
Aroclors	µg/kg-Wet	6	6	100	30 JT	100 JT	02R112	56	56 V	90 JV	30 JT	100 JT	02R112	56	56 V	90 JV
PCB Congeners																
Total PCB Congeners	pg/g-Wet	9	9	100	72300 JT	277000 JT	T01	147000	111000 T	265000 JV	72300 JT	277000 JT	T01	147000	111000 T	265000 JV
Total PCBs[e]																
Total PCBs	µg/kg-Wet	15	15	100	30 JT	277 JT	T01	111	97.1 T	255 JV	30 JT	277 JT	T01	111	97.1 T	255 JV
PCDD/F Homologs																
Total PCDD/F	pg/g-Wet	9	9	100	21.3 JT	42.4 JT	T02	35.1	36.1 JT	42 JV	21.3 JT	42.4 JT	T02	35.1	36.1 JT	42 JV
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g-Wet	9	9	100	1.2 JT	4.37 JT	T02	2.1	1.74 JT	3.9 JV	1.2 JT	4.37 JT	T02	2.1	1.74 JT	3.9 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	9	9	100	1.23 T	3.75 T	T02	1.97	1.73 T	3.15 V	1.23 T	3.75 T	T02	1.97	1.73 T	3.15 V
Pesticides																
Aldrin	µg/kg-Wet	15	0	0	--	--	--	--	--	--	0.16 U	1.2 U	T02	0.31	0.28 U	0.53 UV
Dieldrin	µg/kg-Wet	15	6	40	0.23 J	2.6 N	03R125	1.6	1.7 V	2.5 V	0.22 U	2.7 U	02R112; 04R126	1	0.85 UT	2.3 V
gamma-Hexachlorocyclohexane	µg/kg-Wet	15	0	0	--	--	--	--	--	--	0.18 U	1.1 U	T01; T02; T03	0.35	0.5 U	0.55 UV
Total Chlordanes	µg/kg-Wet	15	12	80	0.59 NJT	7.8 NJT	03R125	3.2	2.54 JV	7.69 JV	0.59 NJT	19 UT	02R112; 02R113	4.12	3.92 JT	9.5 UV
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	15	15	100	1.6 T	143 T	T02	30.2	5.2 JT	135 V	1.6 T	143 T	T02	30.2	5.2 JT	135 V
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	15	15	100	16.9 NJT	284 T	T02	77.4	32.5 NJT	276 V	16.9 NJT	284 T	T02	77.4	32.5 NJT	276 V
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	15	15	100	7 T	93 T	T02	30	19 T	92 V	7 T	93 T	T02	30	19 T	92 V
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	15	14	93.3	6.1 NJT	48 T	T02	18.2	10.8 JV	48 V	6.1 NJT	48 T	T02	17.6	10.7 JT	48 V

Table 5.5-1. Summary Statistics for Indicator Chemicals for Fish Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	15	0	0	--	--	--	--	--	--	0.13 U	33 UT	02R113; 03R118; 04R126	6.5	0.065 U	17 UV
High Molecular Weight PAH	µg/kg-Wet	15	8	53.3	0.93 JT	3.8 JT	T01	2.03	1.72 JV	3.5 JV	0.37 UT	33 UT	02R113; 03R118; 04R126	7.56	2.94 JT	16.5 UV
Low Molecular Weight PAH	µg/kg-Wet	15	10	66.7	8.38 JT	33 T	02R113	14.6	12.5 JV	25.8 JV	8.38 JT	41 UT	02R102	15.7	16 UT	24.3 V
Naphthalene	µg/kg-Wet	15	8	53	3.8	33 T	02R113	8.4	5.1 V	24 V	2.9 U	33 T	02R113; 03R118; 04R126	10	5.8	21 V
Phenanthrene	µg/kg-Wet	15	9	60	0.88	1.9	T01	1.4	1.4	1.9 V	0.88	33 UT	02R113; 03R118; 04R126	7.3	1.8	17 UV
Total BaPEq	µg/kg-Wet	15	8	53.3	0.002 JT	0.249 JT	T02	0.0915	0.0345 JV	0.241 JV	0.002 JT	33 UT	02R113; 03R118; 04R126	6.52	0.225 JT	16.5 UV
Total cPAHs	µg/kg-Wet	15	8	53.3	0.15 JT	1.6 JT	T01	0.61	0.39 JV	1.4 JV	0.15 JT	33 UT	02R113; 03R118; 04R126	6.8	1.1 JT	17 UV
Total PAHs	µg/kg-Wet	15	10	66.7	9.96 JT	33 T	02R113	16.2	14.3 JV	26.2 JV	9.96 JT	41 UT	02R102	16.7	16 UT	24.3 V
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg-Wet	11	0	0	--	--	--	--	--	--	95 UT	860 UT	04R126	160	55 U	400 UV
Butylbenzyl phthalate	µg/kg-Wet	11	4	36	160 J	220	T01	190	190 V	220 V	160 J	3700 U	04R126	660	190	1800 UV
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg-Wet	11	4	36	55 J	200 J	T03	97	67 JV	180 JV	55 J	330 U	02R113; 03R118; 04R126	130	160 U	180 JV
Hexachlorobenzene	µg/kg-Wet	15	9	60	0.62 J	1.2	T02	0.85	0.83 J	1.1 JV	0.62 J	33 UT	04R126	3.4	0.83 J	16 UV
Phenols																
Pentachlorophenol	µg/kg-Wet	11	1	9.1	400 J	400 J	T01	400	400 J	400 J	60 U	420 U	T03	120	80 UT	310 JV
Lamprey Ammocoetes and Macropthalmia																
Conventionals																
Lipids	percent-Wet	6	6	100	3.68	9.84	LTMC1	6.55	5.78 V	9.84 V	3.68	9.84	LTMC1	6.55	5.78 V	9.84 V
Metals																
Arsenic	mg/kg-Wet	4	4	100	0.05 J	0.19	LTAC2	0.12	0.12 JV	0.18 V	0.05 J	0.19	LTAC2	0.12	0.12 JV	0.18 V
Cadmium	mg/kg-Wet	4	4	100	0.002 J	0.005	LTAC2	0.003	0.0025 JV	0.0047 JV	0.002 J	0.005	LTAC2	0.003	0.0025 JV	0.0047 JV
Chromium	mg/kg-Wet	4	4	100	0.13 J	0.32	LTAC2	0.25	0.27 V	0.31 V	0.13 J	0.32	LTAC2	0.25	0.27 V	0.31 V
Copper	mg/kg-Wet	4	4	100	3.08	6.2	LTMC1	4.27	3.9 V	5.89 V	3.08	6.2	LTMC1	4.27	3.9 V	5.89 V
Lead	mg/kg-Wet	4	4	100	0.0331	0.153	LTAC2	0.0823	0.0715 V	0.144 V	0.0331	0.153	LTAC2	0.0823	0.0715 V	0.144 V
Mercury	mg/kg-Wet	2	2	100	0.217	0.355	LTAC2	0.286	0.286 V	0.348 V	0.217	0.355	LTAC2	0.286	0.286 V	0.348 V
Nickel	mg/kg-Wet	4	4	100	0.129	0.292	LTAC2	0.21	0.209 V	0.284 V	0.129	0.292	LTAC2	0.21	0.209 V	0.284 V
Zinc	mg/kg-Wet	4	4	100	19	26.7	LTA3M2	24.4	25.9 V	26.7 V	19	26.7	LTA3M2	24.4	25.9 V	26.7 V
Butyltins																
Tributyltin ion	µg/kg-Wet	1	1	100	4.1	4.1	LTAC2	4.1	4.1	4.1	4.1	4.1	LTAC2	4.1	4.1	4.1
PCB Congeners																
Total PCB Congeners	pg/g-Wet	6	6	100	80600 JT	399000 JT	LTAC2	242000	241000 JV	395000 JV	80600 JT	399000 JT	LTAC2	242000	241000 JV	395000 JV
Total PCBs[c]																
Total PCBs	µg/kg-Wet	6	6	100	80.6 JT	399 JT	LTAC2	242	241 JV	395 JV	80.6 JT	399 JT	LTAC2	242	241 JV	395 JV
PCDD/F Homologs																
Total PCDD/F	pg/g-Wet	6	6	100	69.1 JT	90.1 JT	LTAC2	78.9	78.7 V	87.8 JV	69.1 JT	90.1 JT	LTAC2	78.9	78.7 V	87.8 JV

Table 5.5-1. Summary Statistics for Indicator Chemicals for Fish Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g-Wet	6	6	100	2.36 JT	4.18 JT	LTA3M2	3.11	2.78 JV	4.16 JV	2.36 JT	4.18 JT	LTA3M2	3.11	2.78 JV	4.16 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	6	6	100	1.01 T	3.68 T	LTAC2	2.18	1.89 V	3.64 V	1.01 T	3.68 T	LTAC2	2.18	1.89 V	3.64 V
Pesticides																
Aldrin	µg/kg-Wet	6	6	100	0.874	1.82	LT002	1.6	1.76 V	1.82 V	0.874	1.82	LT002	1.6	1.76 V	1.82 V
Dieldrin	µg/kg-Wet	6	6	100	0.89	6.38	LTMC1	3.24	2.55 V	6.15 V	0.89	6.38	LTMC1	3.24	2.55 V	6.15 V
gamma-Hexachlorocyclohexane	µg/kg-Wet	6	4	66.7	0.0181 J	0.0696 J	LTA3M2	0.0495	0.0552 JV	0.0688 JV	0.0181 J	0.0696 J	LTA3M2	0.0372	0.0321 JV	0.0683 JV
Total Chlordanes	µg/kg-Wet	6	6	100	12.5 JT	29.3 JT	LT002	20.1	19.2 JV	28.8 JV	12.5 JT	29.3 JT	LT002	20.1	19.2 JV	28.8 JV
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	6	6	100	15.1 T	68.8 T	LTMC1	37.9	35.1 V	61.1 V	15.1 T	68.8 T	LTMC1	37.9	35.1 V	61.1 V
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	6	6	100	42.3 T	121 T	LTMC1	79.1	79.7 V	111 V	42.3 T	121 T	LTMC1	79.1	79.7 V	111 V
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	6	6	100	24 T	41 T	LTMC1	35.1	37.3 V	40.5 V	24 T	41 T	LTMC1	35.1	37.3 V	40.5 V
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	6	6	100	2.95 T	11.4 T	LTMC1	6.22	5.87 V	10.5 V	2.95 T	11.4 T	LTMC1	6.22	5.87 V	10.5 V
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	3	1	33	0.47 J	0.47 J	LTAC2	0.47	0.47 J	0.47 J	0.22 U	0.47 J	LTAC2	0.23	0.11 U	0.43 JV
High Molecular Weight PAH	µg/kg-Wet	3	3	100	7.8 JT	160 JT	LTAC2	75	56 JT	150 JV	7.8 JT	160 JT	LTAC2	75	56 JT	150 JV
Low Molecular Weight PAH	µg/kg-Wet	3	3	100	40 T	190 JT	LTMC1	120	120 T	180 JV	40 T	190 JT	LTMC1	120	120 T	180 JV
Naphthalene	µg/kg-Wet	3	3	100	2.6	3.7	LTAC2	3.2	3.2	3.7 V	2.6	3.7	LTAC2	3.2	3.2	3.7 V
Phenanthrene	µg/kg-Wet	3	3	100	14	96	LTMC1	51	43	91 V	14	96	LTMC1	51	43	91 V
Total BaPEq	µg/kg-Wet	3	3	100	0.00024 JT	0.587 JT	LTAC2	0.212	0.0473 JT	0.533 JV	0.00024 JT	0.587 JT	LTAC2	0.212	0.0473 JT	0.533 JV
Total cPAHs	µg/kg-Wet	3	3	100	0.24 JT	1.9 JT	LTAC2	0.96	0.74 JT	1.8 JV	0.24 JT	1.9 JT	LTAC2	0.96	0.74 JT	1.8 JV
Total PAHs	µg/kg-Wet	3	3	100	48 JT	270 JT	LTAC2	190	240 JT	270 JV	48 JT	270 JT	LTAC2	190	240 JT	270 JV
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg-Wet	1	1	100	170 J	170 J	LTAC2	170	170 J	170 J	170 J	170 J	LTAC2	170	170 J	170 J
Butylbenzyl phthalate	µg/kg-Wet	1	0	0	--	--	--	--	--	--	7.3 U	7.3 U	LTAC2	3.7	3.7 U	3.7 U
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg-Wet	1	0	0	--	--	--	--	--	--	22 U	22 U	LTAC2	11	11 U	11 U
Hexachlorobenzene	µg/kg-Wet	6	6	100	1.25	4.62	LTA3M2	2.84	2.82 V	4.48 V	1.25	4.62	LTA3M2	2.84	2.82 V	4.48 V
Phenols																
Pentachlorophenol	µg/kg-Wet	1	0	0	--	--	--	--	--	--	30 U	30 U	LTAC2	15	15 U	15 U
Largescale sucker (whole body)																
Conventionals																
Lipids	percent-Wet	6	6	100	5.4 T	8.7 T	03R014	7.56	7.85 V	8.68 V	5.4 T	8.7 T	03R014	7.56	7.85 V	8.68 V
Metals																
Arsenic	mg/kg-Wet	6	6	100	0.18	0.27	03R014; 05R006	0.233	0.228 V	0.27 V	0.18	0.27	03R014; 05R006	0.233	0.228 V	0.27 V
Cadmium	mg/kg-Wet	6	6	100	0.015 J	0.0325 JT	08R010	0.0206	0.0185 JV	0.0301 JV	0.015 J	0.0325 JT	08R010	0.0206	0.0185 JV	0.0301 JV
Chromium	mg/kg-Wet	6	6	100	0.38	2.77 T	08R010	1.12	0.69 V	2.52 V	0.38	2.77 T	08R010	1.12	0.69 V	2.52 V
Copper	mg/kg-Wet	6	6	100	0.735	1.1 T	08R010	0.901	0.907 V	1.05 V	0.735	1.1 T	08R010	0.901	0.907 V	1.05 V
Lead	mg/kg-Wet	6	6	100	0.064	0.191 T	08R010	0.122	0.114 V	0.187 V	0.064	0.191 T	08R010	0.122	0.114 V	0.187 V
Mercury	mg/kg-Wet	6	6	100	0.045	0.085	07R009	0.0677	0.0725 V	0.0835 V	0.045	0.085	07R009	0.0677	0.0725 V	0.0835 V
Nickel	mg/kg-Wet	6	6	100	0.29	0.81	09R006	0.463	0.395 V	0.749 V	0.29	0.81	09R006	0.463	0.395 V	0.749 V
Zinc	mg/kg-Wet	6	6	100	17.1	19.7 T	08R010	17.9	17.8 V	19.3 V	17.1	19.7 T	08R010	17.9	17.8 V	19.3 V

Table 5.5-1. Summary Statistics for Indicator Chemicals for Fish Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
PCB Aroclors																
Aroclors	µg/kg-Wet	6	6	100	95 T	2020 JT	03R014	819	540 V	1870 JV	95 T	2020 JT	03R014	819	540 V	1870 JV
Total PCBs[d]																
Total PCBs	µg/kg-Wet	6	6	100	95 T	2020 JT	03R014	819	540 V	1870 JV	95 T	2020 JT	03R014	819	540 V	1870 JV
Pesticides																
Aldrin	µg/kg-Wet	6	0	0	--	--	--	--	--	--	1 U	13 UT	07R009	2.5	2 UV	5.4 UV
Dieldrin	µg/kg-Wet	6	0	0	--	--	--	--	--	--	1 U	14 UT	03R014; 07R009	3.8	3.1 UV	7 UV
gamma-Hexachlorocyclohexane	µg/kg-Wet	6	1	17	4.5 NJ	4.5 NJ	03R014	4.5	4.5 NJ	4.5 NJ	3.5 U	9.6 UT	07R009	2.8	2 UV	4.7 JV
Total Chlordanes	µg/kg-Wet	6	2	33	8.6 NJT	9.6 NJT	03R014	9.1	9.1 JV	9.6 JV	7.1 UT	20 UT	07R009	7	7.1 JV	9.9 JV
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	6	6	100	27.5 JT	190 T	08R010	63.8	38.5 JV	157 V	27.5 JT	190 T	08R010	63.8	38.5 JV	157 V
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	6	6	100	143 JT	670 T	08R010	256	177 JV	557 JV	143 JT	670 T	08R010	256	177 JV	557 JV
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	6	6	100	79 T	185 T	08R010	121	106 JV	179 V	79 T	185 T	08R010	121	106 JV	179 V
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	6	5	83.3	17 JT	295 T	08R010	85.1	36.3 NJT	245 JV	6.9 UT	295 T	08R010	71.5	33.7 JV	233 JV
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	6	0	0	--	--	--	--	--	--	26 UT	33 UT	03R014	14	14 UV	16 UV
High Molecular Weight PAH	µg/kg-Wet	6	0	0	--	--	--	--	--	--	26 UT	33 UT	03R014	14	14 UV	16 UV
Low Molecular Weight PAH	µg/kg-Wet	6	2	33.3	42 JT	147 JT	07R009	94.5	94.5 JV	142 JV	26 UT	147 JT	07R009	41.1	15.8 UV	121 JV
Naphthalene	µg/kg-Wet	6	1	17	54 T	54 T	07R009	54	54 T	54 T	26 UT	54 T	07R009	21	16 UV	45 V
Phenanthrene	µg/kg-Wet	6	0	0	--	--	--	--	--	--	26 UT	33 UT	03R014	14	14 UV	16 UV
Total BaPEq	µg/kg-Wet	6	0	0	--	--	--	--	--	--	26 UT	33 UT	03R014	14.4	14 UV	16.4 UV
Total cPAHs	µg/kg-Wet	6	0	0	--	--	--	--	--	--	26 UT	33 UT	03R014	14	14 UV	16 UV
Total PAHs	µg/kg-Wet	6	2	33.3	42 JT	147 JT	07R009	94.5	94.5 JV	142 JV	26 UT	147 JT	07R009	41.1	15.8 UV	121 JV
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg-Wet	6	2	33	800 T	3000 JT	08R010	1900	1900 JV	2900 JV	78 UT	3000 JT	08R010	660	49 UV	2500 JV
Butylbenzyl phthalate	µg/kg-Wet	6	0	0	--	--	--	--	--	--	260 U	330 U	03R014	140	140 UV	160 UV
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg-Wet	6	0	0	--	--	--	--	--	--	260 U	330 U	03R014	140	140 UV	160 UV
Hexachlorobenzene	µg/kg-Wet	6	0	0	--	--	--	--	--	--	4 UT	32 UT	05R006	4.5	2 UV	13 UV
Phenols																
Pentachlorophenol	µg/kg-Wet	6	0	0	--	--	--	--	--	--	130 UT	170 UT	03R014	73	70 UV	84 UV
Northern pikeminnow (whole body)																
Conventionals																
Lipids	percent-Wet	6	6	100	2.3 T	8.1 T	03R014	5.3	5.2 V	7.7 V	2.3 T	8.1 T	03R014	5.3	5.2 V	7.7 V
Metals																
Arsenic	mg/kg-Wet	6	6	100	0.19	0.36 T	03R014	0.26	0.23 V	0.36 V	0.19	0.36 T	03R014	0.26	0.23 V	0.36 V
Cadmium	mg/kg-Wet	6	6	100	0.007 J	0.012 J	05R006	0.00975	0.01 JV	0.0119 JV	0.007 J	0.012 J	05R006	0.00975	0.01 JV	0.0119 JV
Chromium	mg/kg-Wet	6	5	83	0.09 J	0.67	07R009	0.4	0.55	0.66 V	0.08 U	0.67	07R009	0.34	0.33 JV	0.65 V
Copper	mg/kg-Wet	6	6	100	0.575 T	0.89	09R006	0.661	0.6 V	0.848 V	0.575 T	0.89	09R006	0.661	0.6 V	0.848 V
Lead	mg/kg-Wet	6	4	66.7	0.008	0.016	07R009	0.0118	0.0115 V	0.0157 V	0.005 UT	0.016	07R009	0.00883	0.0085 V	0.0155 V
Mercury	mg/kg-Wet	6	6	100	0.146 T	0.494	07R009	0.28	0.25 V	0.468 V	0.146 T	0.494	07R009	0.28	0.25 V	0.468 V
Nickel	mg/kg-Wet	6	6	100	0.119 J	0.461 J	07R009	0.259	0.246 JV	0.422 JV	0.119 J	0.461 J	07R009	0.259	0.246 JV	0.422 JV
Zinc	mg/kg-Wet	6	6	100	16.4	20	08R010	18	17.9 V	19.9 V	16.4	20	08R010	18	17.9 V	19.9 V

Table 5.5-1. Summary Statistics for Indicator Chemicals for Fish Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
PCB Aroclors																
Aroclors	µg/kg-Wet	6	6	100	370 T	1800 T	07R009	833	690 V	1600 V	370 T	1800 T	07R009	833	690 V	1600 V
Total PCBs[d]																
Total PCBs	µg/kg-Wet	6	6	100	370 T	1800 T	07R009	833	690 V	1600 V	370 T	1800 T	07R009	833	690 V	1600 V
Pesticides																
Aldrin	µg/kg-Wet	6	0	0	--	--	--	--	--	--	4 UT	13 UT	07R009	4.2	4.9 UV	6.1 UV
Dieldrin	µg/kg-Wet	6	0	0	--	--	--	--	--	--	4.9 UT	14 UT	03R014; 07R009	5.2	5 UV	7 UV
gamma-Hexachlorocyclohexane	µg/kg-Wet	6	0	0	--	--	--	--	--	--	4 UT	9.8 U	08R010	3.9	4.8 UV	4.9 UV
Total Chlordanes	µg/kg-Wet	6	0	0	--	--	--	--	--	--	11 UT	19 UT	07R009	6.4	5.5 UV	8.9 UV
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	6	5	83.3	17 NJT	72 T	07R009	44.7	46 T	67.2 V	8.6 UT	72 T	07R009	38	43.3 V	66 V
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	6	6	100	145 T	761 T	07R009	322	261 V	659 V	145 T	761 T	07R009	322	261 V	659 V
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	6	6	100	82 T	598 T	07R009	261	218 V	525 V	82 T	598 T	07R009	261	218 V	525 V
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	6	2	33	53 JT	91 T	07R009	72	72 JV	89 JV	6.9 UT	91 T	07R009	26	3.5 UV	82 JV
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-Wet	6	0	0	--	--	--	--	--	--	4 UT	9.8 U	08R010	3.1	3.2 UV	4.5 UV
Peamouth (whole body)																
Conventionals																
Lipids	percent-Wet	4	4	100	6.93 T	10.7 T	05R006	8.93	9.05 V	10.6 V	6.93 T	10.7 T	05R006	8.93	9.05 V	10.6 V
Metals																
Arsenic	mg/kg-Wet	4	4	100	0.35	0.48	08R010	0.43	0.44 V	0.48 V	0.35	0.48	08R010	0.43	0.44 V	0.48 V
Cadmium	mg/kg-Wet	4	4	100	0.021	0.053	09R006	0.032	0.027 V	0.0493 V	0.021	0.053	09R006	0.032	0.027 V	0.0493 V
Chromium	mg/kg-Wet	4	3	75	0.2	0.49	03R014	0.3	0.21	0.46 V	0.09 U	0.49	03R014	0.24	0.21 V	0.45 V
Copper	mg/kg-Wet	4	4	100	0.73	1.61	03R014	1.21	1.25 V	1.59 V	0.73	1.61	03R014	1.21	1.25 V	1.59 V
Lead	mg/kg-Wet	4	4	100	0.031	10.6	03R014	2.7	0.079 V	9.03 V	0.031	10.6	03R014	2.7	0.079 V	9.03 V
Mercury	mg/kg-Wet	4	4	100	0.031	0.054	09R006	0.0383	0.034 V	0.0512 V	0.031	0.054	09R006	0.0383	0.034 V	0.0512 V
Nickel	mg/kg-Wet	4	4	100	0.27 J	0.482 J	03R014	0.386	0.397 JV	0.477 JV	0.27 J	0.482 J	03R014	0.386	0.397 JV	0.477 JV
Zinc	mg/kg-Wet	4	4	100	23.1	25.2	08R010	24.1	24.1 V	25.1 V	23.1	25.2	08R010	24.1	24.1 V	25.1 V
PCB Aroclors																
Aroclors	µg/kg-Wet	4	4	100	138 T	290 T	09R006	187	161 V	273 V	138 T	290 T	09R006	187	161 V	273 V
Total PCBs[d]																
Total PCBs	µg/kg-Wet	4	4	100	138 T	290 T	09R006	187	161 V	273 V	138 T	290 T	09R006	187	161 V	273 V
Pesticides																
Aldrin	µg/kg-Wet	4	0	0	--	--	--	--	--	--	1 UT	1.7 UT	08R010	0.61	0.55 UV	0.81 UV
Dieldrin	µg/kg-Wet	4	0	0	--	--	--	--	--	--	1.4 UT	3.3 UT	09R006	1.1	1 UV	1.6 UV
gamma-Hexachlorocyclohexane	µg/kg-Wet	4	0	0	--	--	--	--	--	--	1 UT	3.3 UT	03R014	1.1	1 UV	1.6 UV
Total Chlordanes	µg/kg-Wet	4	2	50	3.1 NT	3.4 NT	05R006	3.3	3.3 V	3.4 V	3.1 NT	11 UT	03R014	3.7	3.3 V	5.2 V
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	4	4	100	11.1 T	29.5 T	09R006	22.5	24.8 JV	28.8 JV	11.1 T	29.5 T	09R006	22.5	24.8 JV	28.8 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	4	4	100	132 JT	215 T	09R006	160	146 JV	205 JV	132 JT	215 T	09R006	160	146 JV	205 JV
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	4	4	100	109 T	185 T	09R006	132	118 JV	176 JV	109 T	185 T	09R006	132	118 JV	176 JV
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	4	2	50	7 T	12.1 JT	03R014	9.55	9.55 JV	11.8 JV	6.9 UJT	12.1 JT	03R014	6.5	5.23 JV	11.3 JV
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-Wet	4	3	75	5.7 NT	7.3 NT	03R014	6.2	5.7 NT	7.1 V	3.8 UT	7.3 NT	03R014	5.2	5.7 V	7.1 V

Table 5.5-1. Summary Statistics for Indicator Chemicals for Fish Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Sculpin (whole body)																
Conventionals																
Lipids	percent-Wet	42	42	100	2.2 T	6	03R001	4.11	4.1 V	5.5 V	2.2 T	6	03R001	4.11	4.1 V	5.5 V
Metals																
Arsenic	mg/kg-Wet	42	42	100	0.13	0.35	SP10W	0.22	0.22 V	0.33 V	0.13	0.35	SP10W	0.22	0.22 V	0.33 V
Cadmium	mg/kg-Wet	42	42	100	0.003 J	0.022	02R015	0.00776	0.0065 JV	0.0189 V	0.003 J	0.022	02R015	0.00776	0.0065 JV	0.0189 V
Chromium	mg/kg-Wet	42	26	62	0.1 J	0.6	SP09W	0.24	0.2 JV	0.4 V	0.07 U	0.6	SP09W	0.16	0.14 V	0.4 V
Copper	mg/kg-Wet	42	42	100	0.856 T	7.16	SP10W	1.67	1.26 V	3.76 V	0.856 T	7.16	SP10W	1.67	1.26 V	3.76 V
Lead	mg/kg-Wet	42	41	97.6	0.0149 J	0.96 J	04R002	0.105	0.056	0.255 J	0.0149 J	0.96 J	04R002	0.107	0.0575 V	0.252 JV
Mercury	mg/kg-Wet	43	43	100	0.025	0.127 T	SP07E	0.0499	0.042	0.0859 V	0.025	0.127 T	SP07E	0.0499	0.042	0.0859 V
Nickel	mg/kg-Wet	42	36	85.7	0.153 T	1.01	SP04W	0.33	0.312 V	0.563 V	0.08 U	1.01	SP04W	0.291	0.296 V	0.478 V
Zinc	mg/kg-Wet	42	42	100	11.7	18	04R002; 09R001	15	15.2 V	17.5 V	11.7	18	04R002; 09R001	15	15.2 V	17.5 V
Butyltins																
Tributyltin ion	µg/kg-Wet	16	5	31	2.3 J	6.2 T	SP12WA	3.6	2.8 J	5.8 JV	1.8 U	6.2 T	SP12WA	1.7	0.9 UV	4.6 JV
PCB Aroclors																
Aroclors	µg/kg-Wet	26	26	100	62 JT	3360 T	02R015	562	266 JV	2320 JV	62 JT	3360 T	02R015	562	266 JV	2320 JV
PCB Congeners																
Total PCB Congeners	pg/g-Wet	25	25	100	55800 JT	8770000 JT	SP11E	787000	277000 JT	2350000 JV	55800 JT	8770000 JT	SP11E	787000	277000 JT	2350000 JV
Total PCBs[c]																
Total PCBs	µg/kg-Wet	42	42	100	55.8 JT	8770 JT	SP11E	628	192 JV	2420 JV	55.8 JT	8770 JT	SP11E	628	192 JV	2420 JV
PCDD/F Homologs																
Total PCDD/F	pg/g-Wet	25	25	100	5.27 JT	388 T	07R006	43.1	12.2 JT	207 V	5.27 JT	388 T	07R006	43.1	12.2 JT	207 V
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g-Wet	25	25	100	0.528 JT	31.8 T	07R006	2.75	1.08 JT	4.76 JV	0.528 JT	31.8 T	07R006	2.75	1.08 JT	4.76 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	25	25	100	0.194 T	24.1 T	02R001	3.38	0.568 T	8.59 V	0.194 T	24.1 T	02R001	3.38	0.568 T	8.59 V
Pesticides																
Aldrin	µg/kg-Wet	42	12	28.6	0.00532 J	0.0348 J	SP08W	0.0144	0.012 JV	0.0285 JV	0.00532 J	13 UT	03R034; 06R002	0.989	0.5 UV	4.66 UV
Dieldrin	µg/kg-Wet	42	30	71.4	0.867 J	24 JT	02R001	4.56	2.04 V	17.2 JV	0.867 J	24 JT	02R001	4.55	2.38 JV	15 JV
gamma-Hexachlorocyclohexane	µg/kg-Wet	42	20	47.6	0.0133 JT	3.1 NJ	03R004	1.06	1.15 JV	2.72 JV	0.00834 U	9.6 U	05R001; 06R002; 09R002	1.35	1.15 JV	4.8 UV
Total Chlordanes	µg/kg-Wet	42	30	71.4	2.5 NJT	16 NJT	07R006	8.65	8.84 JV	13.3 JV	2.5 NJT	20 UT	06R002	7.29	8.37 JV	11.9 V
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	42	35	83.3	1.11 JT	376 T	07R006	25.8	7.12 T	123 JV	1.11 JT	376 T	07R006	22	6.07 V	98.5 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	42	42	100	12.7 JT	3060 T	07R006	144	37.9 JV	550 JV	12.7 JT	3060 T	07R006	144	37.9 JV	550 JV
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	42	35	83.3	8.25 JT	657 T	07R006	50.3	22.3 T	191 JV	8.25 JT	657 T	07R006	43.7	20.7 JV	161 JV
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	42	38	90.5	2.33 T	2030 T	07R006	89.1	16.1 V	185 JV	2.33 T	2030 T	07R006	80.9	11.5 JV	162 JV

Table 5.5-1. Summary Statistics for Indicator Chemicals for Fish Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	42	1	2.38	1.2 J	1.2 J	SP08E	1.2	1.2 J	1.2 J	0.081 U	33 UT	02R015; 03R004; 06R002	9.47	14.5 UV	16.5 UV
High Molecular Weight PAH	µg/kg-Wet	42	15	35.7	0.62 T	38 T	SP06W	6.28	4.4 T	16 V	0.098 UT	38 T	SP06W	11.7	14.5 UV	16.5 UV
Low Molecular Weight PAH	µg/kg-Wet	42	26	61.9	7.2 JT	510 T	SP06W	48.6	30 V	110 JV	7.2 JT	510 T	SP06W	37.1	17.3 V	49.8 JV
Naphthalene	µg/kg-Wet	42	17	40	1.3	250	SP06W	19	2.3	84 V	1.3	250	SP06W	17	15 UV	17 UV
Phenanthrene	µg/kg-Wet	42	16	38	0.93	33	SP06W	6.8	4.2 V	20 V	0.93	33	02R015; 03R004; 06R002; SP06W	12	15 UV	17 UV
Total BaPEq	µg/kg-Wet	42	5	11.9	0.0639 T	1.2 T	SP08E	0.383	0.0879 T	1.06 JV	0.0639 T	33 UT	02R015; 03R004; 06R002	9.48	14.5 UV	16.5 UV
Total cPAHs	µg/kg-Wet	42	5	11.9	1.2 JT	9.8 T	SP06W	3.18	1.6 T	8.2 V	0.081 UT	33 UT	02R015; 03R004; 06R002	9.82	14.5 UV	16.5 UV
Total PAHs	µg/kg-Wet	42	26	61.9	7.8 JT	550 T	SP06W	52.3	31 JV	111 V	7.8 JT	550 T	SP06W	39.3	19 V	49.9 V
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg-Wet	42	7	17	73 J	28000 JT	08R003	5400	110 J	22000 JV	66 U	28000 JT	08R003	970	72 JV	390 UV
Butylbenzyl phthalate	µg/kg-Wet	42	0	0	--	--	--	--	--	--	7.3 U	330 UJ	02R015; 03R004; 04R004; 06R002; 08R003	97	150 UV	170 UV
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg-Wet	42	10	24	22 J	36 J	SP01W	28	28 JV	34 JV	22 J	330 U	02R015; 03R004; 04R004; 06R002; 08R003	100	150 UV	170 UV
Hexachlorobenzene	µg/kg-Wet	42	16	38.1	0.691	2.08 T	SP12WA	1.45	1.44 V	1.87 V	0.691	33 UT	03R004	6.07	2 UV	16 UV
Phenols																
Pentachlorophenol	µg/kg-Wet	42	0	0	--	--	--	--	--	--	30 U	170 UT	03R004; 06R002	53	70 UV	80 UV
Smallmouth bass (fillet without skin)																
Metals																
Mercury	mg/kg-Wet	5	5	100	0.071	0.129 T	03R014	0.0946	0.087	0.126 V	0.071	0.129 T	03R014	0.0946	0.087	0.126 V
Smallmouth bass (fillet)																
Conventionals																
Lipids	percent-Wet	23	23	100	0.32	1.48	SB09E	1.05	1.05	1.38 V	0.32	1.48	SB09E	1.05	1.05	1.38 V
Metals																
Arsenic	mg/kg-Wet	23	23	100	0.14	0.34	SB02E	0.19	0.18	0.29 V	0.14	0.34	SB02E	0.19	0.18	0.29 V
Cadmium	mg/kg-Wet	23	2	8.7	0.001 J	0.001 J	06R024; 08R032	0.001	0.001 JV	0.001 JV	0.001 J	0.003 U	SB011E; SB03E; SB07W	0.001	0.001 U	0.0015 UV
Chromium	mg/kg-Wet	23	2	8.7	0.2 J	0.9	SB09W	0.55	0.55 JV	0.87 JV	0.06 U	0.9	SB09W	0.09	0.05 U	0.19 JV
Copper	mg/kg-Wet	23	23	100	0.187	1.12	05R006	0.395	0.344	0.89 V	0.187	1.12	05R006	0.395	0.344	0.89 V
Lead	mg/kg-Wet	23	19	82.6	0.007 T	0.518	SB03E	0.0471	0.013	0.102 V	0.002 U	0.518	SB03E	0.0392	0.011	0.055 V
Mercury	mg/kg-Wet	18	18	100	0.0591 J	0.349 J	SB09W	0.171	0.174 JV	0.261 JV	0.0591 J	0.349 J	SB09W	0.171	0.174 JV	0.261 JV
Nickel	mg/kg-Wet	23	23	100	0.004 J	0.224	05R006	0.0596	0.05 J	0.131 JV	0.004 J	0.224	05R006	0.0596	0.05 J	0.131 JV
Zinc	mg/kg-Wet	23	23	100	7.12	10.9 J	05R006	8.65	8.63 T	9.61 JV	7.12	10.9 J	05R006	8.65	8.63 T	9.61 JV
Butyltins																
Tributyltin ion	µg/kg-Wet	18	4	22	0.48 J	0.92 JT	SB04E	0.68	0.66 JV	0.89 JV	0.35 U	0.92 JT	SB04E	0.29	0.18 UV	0.77 JV

Table 5.5-1. Summary Statistics for Indicator Chemicals for Fish Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
PCB Aroclors																
Aroclors	µg/kg-Wet	5	5	100	39 T	93 T	08R032	62	60 T	89 V	39 T	93 T	08R032	62	60 T	89 V
PCB Congeners																
Total PCB Congeners	pg/g-Wet	18	18	100	27000 JT	1480000 JT	SB011E	166000	74100 JV	427000 JV	27000 JT	1480000 JT	SB011E	166000	74100 JV	427000 JV
Total PCBs[e]																
Total PCBs	µg/kg-Wet	23	23	100	27 JT	1480 JT	SB011E	144	65.8 JT	238 JV	27 JT	1480 JT	SB011E	144	65.8 JT	238 JV
PCDD/F Homologs																
Total PCDD/F	pg/g-Wet	18	18	100	0.662 JT	56.9 JT	SB07W	4.76	1.4 JV	12.3 JV	0.662 JT	56.9 JT	SB07W	4.76	1.4 JV	12.3 JV
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g-Wet	18	18	100	0.187 JT	8.74 JT	SB07W	0.928	0.369 JV	3.27 JV	0.187 JT	8.74 JT	SB07W	0.928	0.369 JV	3.27 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	18	18	100	0.0672 T	1.04 T	SB09W	0.315	0.152 JV	0.931 V	0.0672 T	1.04 T	SB09W	0.315	0.152 JV	0.931 V
Pesticides																
Aldrin	µg/kg-Wet	23	6	26.1	0.005 J	0.011 J	SB09W	0.00664	0.00589 JV	0.00998 JV	0.00334 U	1 U	03R014; 05R006; 06R024; 08R032; 09R006	0.12	0.0206 U	0.5 UV
Dieldrin	µg/kg-Wet	23	21	91.3	0.183	3.3 NJ	03R014	0.555	0.364	1.4 NJ	0.183	3.3 NJ	03R014	0.55	0.369	1.36 JV
gamma-Hexachlorocyclohexane	µg/kg-Wet	23	7	30.4	0.003 J	0.011 JT	SB010E	0.00614	0.005 J	0.0104 JV	0.003 J	1 U	03R014; 05R006; 06R024; 08R032; 09R006	0.113	0.0045 U	0.5 UV
Total Chlordanes	µg/kg-Wet	23	21	91.3	0.915 JT	4.1 NJT	03R014	1.75	1.51 JT	3 NJT	0.915 JT	4.1 NJT	03R014	1.69	1.51 JT	2.95 JV
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	23	23	100	0.744 JT	62.7 T	SB07W	6.04	2.94 T	12.1 V	0.744 JT	62.7 T	SB07W	6.04	2.94 T	12.1 V
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	23	23	100	6.41 JT	181 T	SB07W	26	15.5 JT	47.7 JV	6.41 JT	181 T	SB07W	26	15.5 JT	47.7 JV
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	23	23	100	4.98 JT	58.9 T	SB07W	13.4	10.3 JT	24.7 V	4.98 JT	58.9 T	SB07W	13.4	10.3 JT	24.7 V
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	23	23	100	0.674 JT	59 T	SB07W	6.58	1.54 JT	15.1 JV	0.674 JT	59 T	SB07W	6.58	1.54 JT	15.1 JV
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	18	5	27.8	0.091 J	2.5	SB08W	1.1	0.48	2.44 V	0.081 U	2.5	SB08W	0.335	0.0405 UV	2.25 V
High Molecular Weight PAH	µg/kg-Wet	18	11	61	0.92 JT	40 JT	SB08W	10	2.9 JT	35 JV	0.42 UT	40 JT	SB08W	6.3	1.5 V	31 JV
Low Molecular Weight PAH	µg/kg-Wet	18	18	100	0.58 JT	43 T	SB08W	7.8	2.9 JV	24 V	0.58 JT	43 T	SB08W	7.8	2.9 JV	24 V
Naphthalene	µg/kg-Wet	18	18	100	0.52 J	11	SB08W	1.7	0.81 JV	4.1 V	0.52 J	11	SB08W	1.7	0.81 JV	4.1 V
Phenanthrene	µg/kg-Wet	18	8	44	2.7	22	SB08W	7.6	4.8 V	19 V	0.36 U	22	SB08W	3.8	1.2 UV	14 V
Total BaPEq	µg/kg-Wet	18	9	50	0.00799 JT	3.38 JT	SB08W	0.866	0.135 JT	3.18 JV	0.00799 JT	3.38 JT	SB08W	0.453	0.0405 UV	2.96 JV
Total cPAHs	µg/kg-Wet	18	9	50	0.17 JT	13 JT	SB08W	4.45	3.1 JT	12.2 JV	0.081 UT	13 JT	SB08W	2.24	0.105 JV	11.3 JV
Total PAHs	µg/kg-Wet	18	18	100	0.58 JT	84 JT	SB08W	14	6.2 JV	55 JV	0.58 JT	84 JT	SB08W	14	6.2 JV	55 JV
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg-Wet	18	3	17	69 J	130 J	SB09E	97	93 J	130 JV	66 U	130 J	SB09E	44	33 UV	99 JV
Butylbenzyl phthalate	µg/kg-Wet	18	0	0	--	--	--	--	--	--	7.3 U	7.3 U	SB010E; SB010W; SB011E; SB011W; SB02E; SB03E; SB03W; SB04E; SB04W; SB05W; SB06E; SB06W; SB07E; SB07W; SB08E; SB08W; SB09E; SB09W	3.7	3.7 UV	3.7 UV

Table 5.5-1. Summary Statistics for Indicator Chemicals for Fish Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg-Wet	18	10	56	23 J	29 J	SB07E	26	25 JV	29 JV	22 U	29 J	SB07E	19	23 JV	28 JV
Hexachlorobenzene	µg/kg-Wet	23	18	78.3	0.24 J	0.876	SB07W	0.389	0.346 JV	0.575 V	0.24 J	1.3 U	03R014	0.42	0.371 J	0.637 V
Phenols																
Pentachlorophenol	µg/kg-Wet	18	0	0	--	--	--	--	--	--	30 U	30 U	SB010E; SB010W; SB011E; SB011W; SB02E; SB03E; SB03W; SB04E; SB04W; SB05W; SB06E; SB06W; SB07E; SB07W; SB08E; SB08W; SB09E; SB09W	15	15 UV	15 UV
Smallmouth bass (whole body)																
Conventionals																
Lipids	percent-Wet	32	32	100	1.5 T	7.2 T	04R023	5.39	5.45 V	6.78 V	1.5 T	7.2 T	04R023	5.39	5.45 V	6.78 V
Metals																
Arsenic	mg/kg-Wet	32	32	100	0.16 T	0.39	03R014	0.248	0.238 V	0.349 V	0.16 T	0.39	03R014	0.248	0.238 V	0.349 V
Cadmium	mg/kg-Wet	32	26	81.3	0.002 J	0.2 T	SB010E	0.0136	0.0043 JV	0.0213 JV	0.002 J	0.2 T	SB010E	0.0113	0.004 JV	0.018 JV
Chromium	mg/kg-Wet	32	21	65.6	0.13 JT	1.14	08R010	0.409	0.3	1.03	0.06 U	1.14	08R010	0.285	0.16 JV	1 V
Copper	mg/kg-Wet	32	32	100	0.365	1.92 T	SB010E	0.805	0.749 V	1.41 V	0.365	1.92 T	SB010E	0.805	0.749 V	1.41 V
Lead	mg/kg-Wet	32	32	100	0.0048 J	1100 JT	SB010E	34.7	0.014 V	4.05 V	0.0048 J	1100 JT	SB010E	34.7	0.014 V	4.05 V
Mercury	mg/kg-Wet	32	32	100	0.0509 JT	0.166 JT	SB09W	0.0934	0.0899 JV	0.144 JV	0.0509 JT	0.166 JT	SB09W	0.0934	0.0899 JV	0.144 JV
Nickel	mg/kg-Wet	32	25	78.1	0.045 JT	0.2	04R023	0.117	0.13	0.188 JV	0.02 U	0.2	04R023	0.0959	0.0792 JV	0.185 JV
Zinc	mg/kg-Wet	32	32	100	10.8 T	16.3	03R014	13.2	12.9 V	16 V	10.8 T	16.3	03R014	13.2	12.9 V	16 V
Butyltins																
Tributyltin ion	µg/kg-Wet	18	4	22	0.78 JT	1.6 JT	SB04E	1	0.84 JV	1.5 JV	0.78 JT	4.9 UT	SB08E	0.88	0.7 UV	1.7 JV
PCB Aroclors																
Aroclors	µg/kg-Wet	14	14	100	90 JT	4500 JT	08R010	1110	780 JV	3720 JV	90 JT	4500 JT	08R010	1110	780 JV	3720 JV
PCB Congeners																
Total PCB Congeners	pg/g-Wet	32	32	100	205000 JT	6600000 JT	SB011E	1050000	543000 JV	3950000 JV	205000 JT	6600000 JT	SB011E	1050000	543000 JV	3950000 JV
Total PCBs[c]																
Total PCBs	µg/kg-Wet	32	32	100	205 JT	6600 JT	SB011E	1050	543 JV	3950 JV	205 JT	6600 JT	SB011E	1050	543 JV	3950 JV
PCDD/F Homologs																
Total PCDD/F	pg/g-Wet	32	32	100	4.74 T	345 JT	SB07W	26.3	13.7 V	48 V	4.74 T	345 JT	SB07W	26.3	13.7 V	48 V
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g-Wet	32	32	100	1.26 JT	51.9 JT	SB07W	4.77	2.69 JV	11.3 JV	1.26 JT	51.9 JT	SB07W	4.77	2.69 JV	11.3 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	32	32	100	0.524 T	21 T	SB02E	6.16	5.15 V	13.5 V	0.524 T	21 T	SB02E	6.16	5.15 V	13.5 V

Table 5.5-1. Summary Statistics for Indicator Chemicals for Fish Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Pesticides																
Aldrin	µg/kg-Wet	32	15	46.9	0.0104 JT	0.04 JT	SB09E; SB09W	0.0222	0.0199 JT	0.04 JV	0.0104 JT	13 UT	08R010	1.12	0.0369 JV	5.68 UV
Dieldrin	µg/kg-Wet	32	19	59.4	1.38 T	7.3 JT	08R032	2.43	2.19 T	3.38 JV	1.38 T	20 UT	08R010	4	2.68 V	8.52 JV
gamma-Hexachlorocyclohexane	µg/kg-Wet	32	12	37.5	0.014 JT	0.035 JT	SB06E; SB07W	0.0244	0.0235 JV	0.035 JV	0.014 JT	9.6 UT	04R023; 08R010	1.1	0.0325 JV	4.8 UV
Total Chlordanes	µg/kg-Wet	32	20	62.5	5.4 NJT	21.7 JT	SB09W	11	10.8 JV	14.9 JV	5.4 NJT	32 UT	05R006	9.5	9.85 JV	15.2 JV
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	32	32	100	4.19 JT	518 T	SB07W	51	26 V	140 V	4.19 JT	518 T	SB07W	51	26 V	140 V
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	32	32	100	34.5 JT	1460 T	SB07W	203	136 JV	411 V	34.5 JT	1460 T	SB07W	203	136 JV	411 V
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	32	32	100	26.8 JT	474 T	SB07W	115	93.3 JV	204 V	26.8 JT	474 T	SB07W	115	93.3 JV	204 V
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	32	27	84.4	0.758 JT	463 T	SB07W	43.4	11.7 JT	147 JV	0.758 JT	463 T	SB07W	37.2	10 JV	135 JV
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	32	5	16	0.15 JT	1.3 T	SB09E	0.64	0.66 T	1.2 V	0.15 JT	33 UT	07R009; 08R010	6.9	0.8 V	16 UV
High Molecular Weight PAH	µg/kg-Wet	32	12	38	0.86 JT	75 T	04R023	21	12 JV	74 JV	0.4 UT	75 T	04R023	14	15 UV	46 JV
Low Molecular Weight PAH	µg/kg-Wet	32	25	78.1	11 JT	308 T	07R009	61.4	31 JT	234 JV	11 JT	308 T	07R009	51.4	25.5 JV	201 JV
Naphthalene	µg/kg-Wet	32	20	63	0.73 JT	86 T	07R009	10	1.7 JV	53 V	0.73 JT	86 T	07R009	12	7.1 JV	35 V
Phenanthrene	µg/kg-Wet	32	20	63	3.6 T	85 T	07R009	20	9.6 V	53 V	3.6 T	85 T	07R009	18	16 UV	50 V
Total BaPEq	µg/kg-Wet	32	9	28.1	0.0121 JT	1.64 JT	SB09E	0.525	0.192 JT	1.56 JV	0.0121 JT	33 UT	07R009; 08R010	6.95	1.19 JV	16.2 UV
Total cPAHs	µg/kg-Wet	32	9	28.1	0.26 JT	6.8 JT	SB09E	2.5	1.5 JT	6.5 JV	0.25 UT	33 UT	07R009; 08R010	7.5	4.8 JV	16 UV
Total PAHs	µg/kg-Wet	32	25	78.1	11 JT	308 T	07R009	71.5	39 JT	238 JV	11 JT	308 T	07R009	59.3	29 JV	212 JV
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg-Wet	31	6	19	44 JT	87000 JT	04R023	21000	2800 V	73000 JV	44 JT	87000 JT	04R023	4100	48 UT	17000 JV
Butylbenzyl phthalate	µg/kg-Wet	32	0	0	--	--	--	--	--	--	7.3 UT	330 U	07R009; 08R010	70	3.7 UV	160 UV
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg-Wet	32	16	50	14 JT	33 JT	SB09E	27	27 JV	32 JV	14 JT	330 U	07R009; 08R010	81	32 JV	160 UV
Hexachlorobenzene	µg/kg-Wet	32	18	56.3	1.67 T	4.79 T	SB07W	2.2	1.99 JV	3.08 V	1 UT	6.4 UT	03R014; 04R023; 05R006; 07R009; 08R010; 08R032; 09R006	2.51	2.34 JV	3.2 UV
Phenols																
Pentachlorophenol	µg/kg-Wet	32	0	0	--	--	--	--	--	--	30 UT	160 UT	06R024; 07R009; 08R010; 08R032; 09R006	42	15 UV	80 UV
Sturgeon (fillet without skin)																
Conventionals																
Lipids	percent-Wet	5	5	100	0.83	3.4	RM 3.5-9.2	2	1.6	3.3 V	0.83	3.4	RM 3.5-9.2	2	1.6	3.3 V
Metals																
Arsenic	mg/kg-Wet	5	5	100	0.157	0.538	RM 3.5-9.2	0.342	0.314	0.515 V	0.157	0.538	RM 3.5-9.2	0.342	0.314	0.515 V
Cadmium	mg/kg-Wet	5	0	0	--	--	--	--	--	--	0.00975 U	0.0105 UT	RM 3.5-9.2	0.00506	0.0051 U	0.00523 UV
Chromium	mg/kg-Wet	5	5	100	0.412	3.25	RM 3.5-9.2	1.55	1.17 T	3.07 V	0.412	3.25	RM 3.5-9.2	1.55	1.17 T	3.07 V
Copper	mg/kg-Wet	5	5	100	0.127	0.253	RM 3.5-9.2	0.189	0.169	0.249 V	0.127	0.253	RM 3.5-9.2	0.189	0.169	0.249 V
Lead	mg/kg-Wet	5	1	20	0.0165	0.0165	RM 3.5-9.2	0.0165	0.0165	0.0165	0.00975 U	0.0165	RM 3.5-9.2	0.00733	0.0051 U	0.0143 V
Mercury	mg/kg-Wet	5	5	100	0.0963	0.322 T	RM 3.5-9.2	0.242	0.263	0.319 V	0.0963	0.322 T	RM 3.5-9.2	0.242	0.263	0.319 V
Nickel	mg/kg-Wet	5	5	100	0.0351	1.65	RM 3.5-9.2	0.727	0.586 T	1.58 V	0.0351	1.65	RM 3.5-9.2	0.727	0.586 T	1.58 V
Zinc	mg/kg-Wet	5	5	100	2.08	2.93 T	RM 3.5-9.2	2.56	2.55	2.89 V	2.08	2.93 T	RM 3.5-9.2	2.56	2.55	2.89 V

Table 5.5-1. Summary Statistics for Indicator Chemicals for Fish Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
PCB Aroclors																
Aroclors	µg/kg-Wet	5	5	100	43 T	430 JT	RM 3.5-9.2	133	51.5 JT	362 JV	43 T	430 JT	RM 3.5-9.2	133	51.5 JT	362 JV
PCB Congeners																
Total PCB Congeners	pg/g-Wet	5	5	100	84700	964000	RM 3.5-9.2	289000	96200	812000 V	84700	964000	RM 3.5-9.2	289000	96200	812000 V
Total PCBs[c]																
Total PCBs	µg/kg-Wet	5	5	100	84.7	964	RM 3.5-9.2	289	96.2	812 V	84.7	964	RM 3.5-9.2	289	96.2	812 V
PCDD/F Homologs																
Total PCDD/F	pg/g-Wet	5	5	100	1.64 T	23.2 T	RM 3.5-9.2	7.72	4.45 T	19.7 V	1.64 T	23.2 T	RM 3.5-9.2	7.72	4.45 T	19.7 V
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g-Wet	5	5	100	0.135 T	1.33 T	RM 3.5-9.2	0.564	0.516 T	1.18 V	0.135 T	1.33 T	RM 3.5-9.2	0.564	0.516 T	1.18 V
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	5	5	100	0.12 T	0.874 T	RM 3.5-9.2	0.501	0.559 T	0.822 V	0.12 T	0.874 T	RM 3.5-9.2	0.501	0.559 T	0.822 V
Pesticides																
Aldrin	µg/kg-Wet	5	0	0	--	--	--	--	--	--	0.47 U	1 U	RM 3.5-9.2	0.42	0.46 UT	0.5 UV
Dieldrin	µg/kg-Wet	5	2	40	0.67 J	1.4 J	RM 3.5-9.2	1	1 JV	1.4 JV	0.67 J	1.4 J	RM 3.5-9.2	0.7	0.5 U	1.3 JV
gamma-Hexachlorocyclohexane	µg/kg-Wet	5	0	0	--	--	--	--	--	--	0.23 U	1 U	RM 3.5-9.2	0.4	0.46 UT	0.5 UV
Total Chlordanes	µg/kg-Wet	5	4	80	2.5 JA	5.6 JA	RM 3.5-9.2	4.1	4.2 JV	5.6 JV	2.5 JA	5.6 JA	RM 3.5-9.2	3.6	3 JA	5.5 JV
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	5	0	0	--	--	--	--	--	--	1.1 UT	24 UT	RM 3.5-9.2	5.8	5 UT	11 UV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	5	5	100	38 JT	125 JT	RM 3.5-9.2	77.7	64 JT	124 JV	38 JT	125 JT	RM 3.5-9.2	77.7	64 JT	124 JV
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	5	5	100	27.5 JT	94 JT	RM 3.5-9.2	50.3	51 JT	85.4 JV	27.5 JT	94 JT	RM 3.5-9.2	50.3	51 JT	85.4 JV
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	5	5	100	10 JT	74 JT	RM 3.5-9.2	27	13 JT	65 JV	10 JT	74 JT	RM 3.5-9.2	27	13 JT	65 JV
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	5	0	0	--	--	--	--	--	--	3.8 U	3.9 U	RM 3.5-9.2	1.9	1.9 UT	2 UV
High Molecular Weight PAH	µg/kg-Wet	5	2	40	0.9 JT	2.5 JT	RM 3.5-9.2	1.7	1.7 JV	2.4 JV	0.9 JT	15 UT	RM 3.5-9.2	5.2	7.5 UT	7.5 UV
Low Molecular Weight PAH	µg/kg-Wet	5	3	60	3.1 JT	23.1 T	RM 3.5-9.2	9.87	3.4 JT	21.1 JV	3.1 JT	23.1 T	RM 3.5-9.2	6.72	3.1 JT	19.2 JV
Naphthalene	µg/kg-Wet	5	0	0	--	--	--	--	--	--	3.8 UT	4.9 U	RM 3.5-9.2	2.1	2.1 U	2.4 UV
Phenanthrene	µg/kg-Wet	5	0	0	--	--	--	--	--	--	3.8 U	5.8 U	RM 3.5-9.2	2.1	2 U	2.7 UV
Total BaPEq	µg/kg-Wet	5	0	0	--	--	--	--	--	--	3.8 UT	3.9 UT	RM 3.5-9.2	1.92	1.9 UT	1.95 UV
Total cPAHs	µg/kg-Wet	5	0	0	--	--	--	--	--	--	15 UT	16 UT	RM 3.5-9.2	7.6	7.5 UT	7.9 UV
Total PAHs	µg/kg-Wet	5	3	60	4 JT	23.1 T	RM 3.5-9.2	11	5.9 JT	21.4 JV	4 JT	23.1 T	RM 3.5-9.2	9.6	7.5 UT	20 V
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-Wet	5	3	60	1.5 J	1.6 JT	RM 3.5-9.2	1.6	1.6 J	1.6 JV	1.5 J	3.9 U	RM 3.5-9.2	1.7	1.6 JT	1.9 UV
Sturgeon (whole body)																
Conventionals																
Lipids	percent-Wet	15	15	100	2.59	8.45	STWB02	5.29	4.59	8.33 V	2.59	8.45	STWB02	5.29	4.59	8.33 V
Metals																
Arsenic	mg/kg-Wet	15	15	100	0.298 T	1.06	STWB03	0.594	0.56	0.913 V	0.298 T	1.06	STWB03	0.594	0.56	0.913 V
Cadmium	mg/kg-Wet	15	15	100	0.003 J	0.019 T	STWB04	0.0076	0.006	0.0155 V	0.003 J	0.019 T	STWB04	0.0076	0.006	0.0155 V
Chromium	mg/kg-Wet	15	2	13.3	0.2 J	40.2	STWB01	20.2	20.2 JV	38.2 JV	0.1 U	40.2	STWB01	2.74	0.05 U	12.2 JV
Copper	mg/kg-Wet	15	15	100	0.544	0.959	STWB01	0.791	0.816	0.945 V	0.544	0.959	STWB01	0.791	0.816	0.945 V
Lead	mg/kg-Wet	15	15	100	0.007	0.024	STWB01	0.0138	0.012	0.0219 V	0.007	0.024	STWB01	0.0138	0.012	0.0219 V
Mercury	mg/kg-Wet	15	15	100	0.034	0.14 T	STWB04	0.0545	0.046	0.0917 V	0.034	0.14 T	STWB04	0.0545	0.046	0.0917 V
Nickel	mg/kg-Wet	15	1	6.67	0.461	0.461	STWB01	0.461	0.461	0.461	0.061 U	0.461	STWB01	0.0755	0.047 U	0.19 V
Zinc	mg/kg-Wet	15	15	100	7.39	11.9	STWB02	9.53	9.61	11.8 V	7.39	11.9	STWB02	9.53	9.61	11.8 V

Table 5.5-1. Summary Statistics for Indicator Chemicals for Fish Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Butyltins																
Tributyltin ion	µg/kg-Wet	15	4	27	0.61 J	1.1	STWB05	0.78	0.7 JV	1 JV	0.35 U	1.8 U	STWB02; STWB04; STWB05	0.58	0.69 J	0.96 V
PCB Congeners																
Total PCB Congeners	pg/g-Wet	15	15	100	69100 JT	325000 JT	STWB04	114000	97400 NJT	186000 JV	69100 JT	325000 JT	STWB04	114000	97400 NJT	186000 JV
Total PCBs[c]																
Total PCBs	µg/kg-Wet	15	15	100	69.1 JT	325 JT	STWB04	114	97.4 NJT	186 JV	69.1 JT	325 JT	STWB04	114	97.4 NJT	186 JV
PCDD/F Homologs																
Total PCDD/F	pg/g-Wet	15	15	100	4.32 JT	13.9 JT	STWB02	8.62	8.21 JT	12.9 JV	4.32 JT	13.9 JT	STWB02	8.62	8.21 JT	12.9 JV
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g-Wet	15	15	100	0.35 JT	1.33 JT	STWB02	0.849	0.945 JT	1.22 JV	0.35 JT	1.33 JT	STWB02	0.849	0.945 JT	1.22 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	15	15	100	0.098 T	0.446 T	STWB04	0.18	0.168 T	0.284 V	0.098 T	0.446 T	STWB04	0.18	0.168 T	0.284 V
Pesticides																
Aldrin	µg/kg-Wet	15	13	86.7	0.0103 J	0.0554 J	STWB01	0.0306	0.0273 J	0.0546 JV	0.0103 J	0.0554 J	STWB01	0.0283	0.0266 J	0.0545 JV
Dieldrin	µg/kg-Wet	15	15	100	1.24	3.11	STWB04	1.96	1.89 T	2.87 V	1.24	3.11	STWB04	1.96	1.89 T	2.87 V
gamma-Hexachlorocyclohexane	µg/kg-Wet	15	13	86.7	0.0123 J	0.0618 J	STWB02	0.0331	0.033 J	0.0544 JV	0.0123 J	0.0618 J	STWB02	0.0303	0.0256 J	0.0532 JV
Total Chlordanes	µg/kg-Wet	15	15	100	6.22 JT	20.4 T	STWB04	9.98	9.27 JT	14.7 V	6.22 JT	20.4 T	STWB04	9.98	9.27 JT	14.7 V
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	15	15	100	10.7 T	29.4 T	STWB02	19	16 T	27.9 V	10.7 T	29.4 T	STWB02	19	16 T	27.9 V
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	15	15	100	77.9 T	176 JT	STWB04	118	124 T	158 JV	77.9 T	176 JT	STWB04	118	124 T	158 JV
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	15	15	100	59.5 T	156 JT	STWB04	92.3	94.1 T	125 JV	59.5 T	156 JT	STWB04	92.3	94.1 T	125 JV
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	15	15	100	3.26 T	10.2 T	STWB02	6.11	5.82 T	9.31 V	3.26 T	10.2 T	STWB02	6.11	5.82 T	9.31 V
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	15	0	0	--	--	--	--	--	--	0.081 U	0.081 U	STWB01; STWB02; STWB03; STWB04; STWB05	0.0405	0.0405 U	0.0405 UV
High Molecular Weight PAH	µg/kg-Wet	15	2	13.3	0.82 T	1.6 T	STWB03	1.21	1.21 V	1.56 V	0.098 UT	1.6 T	STWB03	0.204	0.049 UT	1.05 V
Low Molecular Weight PAH	µg/kg-Wet	15	15	100	1.1 T	59 T	STWB03	9	6.4 JT	28 JV	1.1 T	59 T	STWB03	9	6.4 JT	28 JV
Naphthalene	µg/kg-Wet	15	8	53	4.1	14	STWB03	6.4	5.2 V	12 V	0.4 U	14	STWB03	3.8	4.1	9.4 V
Phenanthrene	µg/kg-Wet	15	10	67	0.37 J	5.3	STWB03	1.1	0.67 V	3.5 V	0.36 U	5.3	STWB03	0.82	0.48 JT	2.5 V
Total BaPEq	µg/kg-Wet	15	0	0	--	--	--	--	--	--	0.081 UT	0.081 UT	STWB01; STWB02; STWB03; STWB04; STWB05	0.0405	0.0405 UT	0.0405 UV
Total cPAHs	µg/kg-Wet	15	0	0	--	--	--	--	--	--	0.081 UT	0.081 UT	STWB01; STWB02; STWB03; STWB04; STWB05	0.0405	0.0405 UT	0.0405 UV
Total PAHs	µg/kg-Wet	15	15	100	1.1 T	61 T	STWB03	9.2	6.4 JT	28 JV	1.1 T	61 T	STWB03	9.2	6.4 JT	28 JV
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg-Wet	15	4	27	67 J	300	STWB04	150	110 JV	280 JV	66 U	300	STWB04	63	33 U	190 JV
Butylbenzyl phthalate	µg/kg-Wet	15	0	0	--	--	--	--	--	--	7.3 U	7.3 U	STWB01; STWB02; STWB03; STWB04; STWB05	3.7	3.7 U	3.7 UV

Table 5.5-1. Summary Statistics for Indicator Chemicals for Fish Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg-Wet	15	15	100	48	75 JT	STWB04	62	64	72 JV	48	75 JT	STWB04	62	64	72 JV
Hexachlorobenzene	µg/kg-Wet	15	15	100	0.911	2.38	STWB02	1.47	1.35	2.12 V	0.911	2.38	STWB02	1.47	1.35	2.12 V
Phenols																
Pentachlorophenol	µg/kg-Wet	15	0	0	--	--	--	--	--	--	30 U	30 U	STWB01; STWB02; STWB03; STWB04; STWB05	15	15 U	15 UV

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners.

[d] Total PCBs are total Aroclors.

[e] Total PCBs are total PCB congeners whenever available and total Aroclors if not.

Reason codes for qualifiers:

A - Total value based on limited number of analytes.

J - The associated numerical value is an estimated quantity.

N - Presumptive evidence of presence of material; identification of the compound is not definitive.

T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.

U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.

V - Median or 95th percentile obtained through interpolation.

-- data not available.

BaPEq - benzo(a)pyrene equivalent

cPAH - carcinogenic polycyclic aromatic hydrocarbon

DL - detection limit

ND - non-detect

PAH - polycyclic aromatic hydrocarbon

PBDE - polybrominated diphenyl ether

PCB - polychlorinated biphenyl

PCDD/Fs - dioxins/furans

TEQ - toxic equivalent concentration

Table 5.5-2. Summary Statistics for Indicator Chemicals for Invertebrate Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Chinook (stomach contents)																
PCB Congeners																
Total PCB Congeners	pg/g-Wet	5	5	100	53800 JT	162000 JT	T03	83900	59800 JT	147000 JV	53800 JT	162000 JT	T03	83900	59800 JT	147000 JV
Total PCBs[c]																
Total PCBs	µg/kg-Wet	5	5	100	53.8 JT	162 JT	T03	83.9	59.8 JT	147 JV	53.8 JT	162 JT	T03	83.9	59.8 JT	147 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	5	5	100	0.0889 T	1.85 T	T02	1.08	1.3 T	1.8 V	0.0889 T	1.85 T	T02	1.08	1.3 T	1.8 V
Pesticides																
Aldrin	µg/kg-Wet	5	2	40	0.00576 J	0.0426 J	T02	0.0242	0.0242 JV	0.0408 JV	0.00576 J	0.0426 J	T02	0.0175	0.0167 U	0.0376 JV
Dieldrin	µg/kg-Wet	5	5	100	0.471 J	2.92	T02	1.48	1.58	2.7 V	0.471 J	2.92	T02	1.48	1.58	2.7 V
gamma-Hexachlorocyclohexane	µg/kg-Wet	5	1	20	0.128 J	0.128 J	T02	0.128	0.128 J	0.128 J	0.0194 U	0.128 J	T02	0.0412	0.0218 U	0.109 JV
Total Chlordanes	µg/kg-Wet	5	5	100	1.08 JT	4.61 JT	T02	2.67	2.98 JT	4.36 JV	1.08 JT	4.61 JT	T02	2.67	2.98 JT	4.36 JV
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	5	5	100	0.62 JT	137 NJT	T02	34	2.43 NJT	115 JV	0.62 JT	137 NJT	T02	34	2.43 NJT	115 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	5	5	100	8.88 JT	327 NJT	T02	107	12.7 JT	297 JV	8.88 JT	327 NJT	T02	107	12.7 JT	297 JV
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	5	5	100	5.03 NJT	147 NJT	T02	49.2	9.21 JT	133 JV	5.03 NJT	147 NJT	T02	49.2	9.21 JT	133 JV
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	5	5	100	1.18 JT	69.4 T	T02	23.5	1.5 JT	64.3 JV	1.18 JT	69.4 T	T02	23.5	1.5 JT	64.3 JV
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	5	2	40	2.26 J	20.7	T02	11.5	11.5 JV	19.8 JV	1.63 U	20.7	T02	5.67	2.26 J	17.1 V
High Molecular Weight PAH	µg/kg-Wet	5	5	100	49.9 JT	1050 JT	T02	338	200 JT	892 JV	49.9 JT	1050 JT	T02	338	200 JT	892 JV
Low Molecular Weight PAH	µg/kg-Wet	5	5	100	45.7 JT	1410 JT	T02	347	72.3 JT	1160 JV	45.7 JT	1410 JT	T02	347	72.3 JT	1160 JV
Naphthalene	µg/kg-Wet	5	0	0	--	--	--	--	--	--	27.3 U	38.8 UJ	T02	17.1	18.8 U	19.3 UJV
Phenanthrene	µg/kg-Wet	5	5	100	33.9	862	T02	220	53.8	710 V	33.9	862	T02	220	53.8	710 V
Total BaPEq	µg/kg-Wet	5	5	100	0.5 JT	35.9 JT	T02	9.46	3.77 JT	29.8 JV	0.5 JT	35.9 JT	T02	9.46	3.77 JT	29.8 JV
Total cPAHs	µg/kg-Wet	5	5	100	14 JT	270 JT	T02	95	65 JT	230 JV	14 JT	270 JT	T02	95	65 JT	230 JV
Total PAHs	µg/kg-Wet	5	5	100	95.5 JT	2460 JT	T02	685	272 JT	2050 JV	95.5 JT	2460 JT	T02	685	272 JT	2050 JV
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-Wet	5	5	100	0.469	1.66	T02	0.932	0.849	1.54 V	0.469	1.66	T02	0.932	0.849	1.54 V
Clam (Corbicula spp. – body without shell)																
Conventionals																
Lipids	percent-Wet	45	45	100	0.837 T	4.63	FC028	2.19	2.09	3.33 V	0.837 T	4.63	FC028	2.19	2.09	3.33 V
Metals																
Arsenic	mg/kg-Wet	41	41	100	0.615	1.25	FC002	0.902	0.909	1.07	0.615	1.25	FC002	0.902	0.909	1.07
Cadmium	mg/kg-Wet	41	41	100	0.035 J	0.218	FC002	0.086	0.076	0.154 J	0.035 J	0.218	FC002	0.086	0.076	0.154 J
Chromium	mg/kg-Wet	41	41	100	0.4	1.05 T	FC0061	0.615	0.62	0.92	0.4	1.05 T	FC0061	0.615	0.62	0.92
Copper	mg/kg-Wet	41	41	100	4.57	13.5	FC023	8.99	9.26	11.6	4.57	13.5	FC023	8.99	9.26	11.6
Lead	mg/kg-Wet	41	41	100	0.024	0.316	07R006	0.0918	0.071	0.192	0.024	0.316	07R006	0.0918	0.071	0.192
Mercury	mg/kg-Wet	38	38	100	0.005 JT	0.0263 J	CA11E	0.0119	0.0107 JV	0.0247 JV	0.005 JT	0.0263 J	CA11E	0.0119	0.0107 JV	0.0247 JV
Nickel	mg/kg-Wet	41	41	100	0.151	0.485 J	FC030	0.293	0.297 J	0.441 J	0.151	0.485 J	FC030	0.293	0.297 J	0.441 J
Zinc	mg/kg-Wet	41	41	100	19.6	54	FC023	33.1	31.8 T	46.9	19.6	54	FC023	33.1	31.8 T	46.9
Butyltins																
Tributyltin ion	µg/kg-Wet	37	22	59	2.5	530	FC023	34	6.5 V	62 V	1.8 U	530	FC023	21	3.7	39 V
PCB Aroclors																
Aroclors	µg/kg-Wet	3	3	100	62 JT	120 T	07R006	86	77 T	120 V	62 JT	120 T	07R006	86	77 T	120 V

Table 5.5-2. Summary Statistics for Indicator Chemicals for Invertebrate Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
PCB Congeners																
Total PCB Congeners	pg/g-Wet	41	41	100	39100 JT	2650000 JT	FC016	234000	108000 JT	513000 T	39100 JT	2650000 JT	FC016	234000	108000 JT	513000 T
Total PCBs[d]																
Total PCBs	µg/kg-Wet	44	44	100	39.1 JT	2650 JT	FC016	224	105 JV	505 V	39.1 JT	2650 JT	FC016	224	105 JV	505 V
PCDD/F Homologs																
Total PCDD/F	pg/g-Wet	39	39	100	25.3 JT	189 T	FC019	71.9	53.5 JT	172 JV	25.3 JT	189 T	FC019	71.9	53.5 JT	172 JV
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g-Wet	39	39	100	0.0963 JT	5.45 JT	FC018	0.802	0.437 JT	3.2 JV	0.0963 JT	5.45 JT	FC018	0.802	0.437 JT	3.2 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	41	41	100	0.458 T	5.32 T	FC0061	1.38	1 T	3.23 T	0.458 T	5.32 T	FC0061	1.38	1 T	3.23 T
Pesticides																
Aldrin	µg/kg-Wet	44	40	90.9	0.11 J	5.07	FC028	0.361	0.224 JV	0.405 V	0.0901 U	5.07	FC028	0.365	0.227 JV	0.524 V
Dieldrin	µg/kg-Wet	44	41	93.2	0.338 J	2.62	FC028	0.824	0.732	1.19	0.338 J	2.62	FC028	0.801	0.717 V	1.18 JV
gamma-Hexachlorocyclohexane	µg/kg-Wet	44	36	81.8	0.018 J	0.0837 J	FC017	0.0559	0.0633 JV	0.079 JV	0.018 J	1 U	06R002; 07R003; 07R006	0.0877	0.0633 JV	0.463 UV
Total Chlordanes	µg/kg-Wet	44	44	100	1.1 NJT	16 JT	FC028	3.72	3.17 JV	6.23 JV	1.1 NJT	16 JT	FC028	3.72	3.17 JV	6.23 JV
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	44	44	100	1.63 T	242 T	07R006	23.4	10.2 V	105 JV	1.63 T	242 T	07R006	23.4	10.2 V	105 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	44	44	100	7.44 JT	463 JT	07R006	48.9	23.6 V	175 JV	7.44 JT	463 JT	07R006	48.9	23.6 V	175 JV
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	44	44	100	4.89 JT	107 JT	07R006	17.5	12.6 V	59.9 V	4.89 JT	107 JT	07R006	17.5	12.6 V	59.9 V
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	44	43	97.7	0.464 JT	114 T	07R006	8.15	2.05 T	42.4 V	0.464 JT	114 T	07R006	8.06	2.07 V	41.4 V
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	42	36	86	0.32 J	490	FC015	34	4.6 V	160 V	0.16 U	490	FC015	30	4.6 V	59 V
High Molecular Weight PAH	µg/kg-Wet	42	42	100	16 JT	4450 T	FC014	421	151 JV	1050 V	16 JT	4450 T	FC014	421	151 JV	1050 V
Low Molecular Weight PAH	µg/kg-Wet	42	39	92.9	6.1 JT	542 T	FC015	61	30.5 T	247 V	6.1 JT	542 T	FC015	58.2	29.3 V	234 V
Naphthalene	µg/kg-Wet	42	5	12	2.6	78	CA12E	25	9	69 V	0.97 UT	78	CA12E	4.9	0.93 UV	16 UV
Phenanthrene	µg/kg-Wet	42	39	93	2.7	300	FC015	35	16	160 V	2.7	300	FC015	34	16 V	160 V
Total BaPEq	µg/kg-Wet	42	40	95.2	0.194 T	663 T	FC015	43.5	6.69 V	118 V	0.194 T	663 T	FC015	42.2	7.38 V	89.8 V
Total cPAHs	µg/kg-Wet	42	40	95.2	5.7 T	2700 T	FC015	220	59 JV	600 V	5.7 T	2700 T	FC015	210	57 JV	500 V
Total PAHs	µg/kg-Wet	42	42	100	22 JT	4980 T	FC015	478	181 JV	1170 V	22 JT	4980 T	FC015	478	181 JV	1170 V
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg-Wet	41	7	17	77 J	150 J	CA05W; CA12E	120	120 J	150 JV	53 U	340 UT	07R006	54	33 U	150 J
Butylbenzyl phthalate	µg/kg-Wet	41	0	0	--	--	--	--	--	--	7.3 U	330 U	06R002	19	7 U	160 U
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg-Wet	41	31	75.6	8.6 J	1300 T	07R003	69.3	18 J	115 JV	6.7 U	1300 T	07R003	62	13.5 JT	155 U
Hexachlorobenzene	µg/kg-Wet	45	41	91.1	0.373	1.07	FC017	0.611	0.624	0.839 J	0.373	12 U	FC009	0.788	0.629	1.02 V
Phenols																
Pentachlorophenol	µg/kg-Wet	13	1	7.7	30 JT	30 JT	CA01E	30	30 JT	30 JT	30 JT	160 UT	06R002; 07R003; 07R006	31	15 U	80 UV

Table 5.5-2. Summary Statistics for Indicator Chemicals for Invertebrate Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Clam (Corbicula spp. – depurated w/o shell)																
Conventionals																
Lipids	percent-Wet	5	5	100	1	2.14	CA02W	1.63	1.62	2.1 V	1	2.14	CA02W	1.63	1.62	2.1 V
Metals																
Arsenic	mg/kg-Wet	5	5	100	0.76	1.35	CA02W	0.949	0.819	1.28 V	0.76	1.35	CA02W	0.949	0.819	1.28 V
Cadmium	mg/kg-Wet	5	5	100	0.052 J	0.104 J	CA01E	0.081	0.09 J	0.103 JV	0.052 J	0.104 J	CA01E	0.081	0.09 J	0.103 JV
Chromium	mg/kg-Wet	5	5	100	0.4	0.5	CA02W; CA10W; CA12E	0.46	0.5	0.5 V	0.4	0.5	CA02W; CA10W; CA12E	0.46	0.5	0.5 V
Copper	mg/kg-Wet	5	5	100	6.85	9.03	CA02W	7.63	7.59	8.75 V	6.85	9.03	CA02W	7.63	7.59	8.75 V
Lead	mg/kg-Wet	5	5	100	0.023	0.114	CA12E	0.0564	0.054	0.103 V	0.023	0.114	CA12E	0.0564	0.054	0.103 V
Mercury	mg/kg-Wet	4	4	100	0.0156 J	0.0223 J	CA02W; CA12E	0.0199	0.0209 JV	0.0223 JV	0.0156 J	0.0223 J	CA02W; CA12E	0.0199	0.0209 JV	0.0223 JV
Nickel	mg/kg-Wet	5	5	100	0.121	0.204	CA10W	0.179	0.194	0.202 V	0.121	0.204	CA10W	0.179	0.194	0.202 V
Zinc	mg/kg-Wet	5	5	100	19.3	27.9	CA10W	22.9	22.4	27.1 V	19.3	27.9	CA10W	22.9	22.4	27.1 V
Butyltins																
Tributyltin ion	µg/kg-Wet	4	0	0	--	--	--	--	--	--	4 U	14 U	CA02W	3.3	2.1 UV	6.3 UV
PCB Congeners																
Total PCB Congeners	pg/g-Wet	5	5	100	82600 JT	480000 T	CA11E	183000	110000 JT	415000 V	82600 JT	480000 T	CA11E	183000	110000 JT	415000 V
Total PCBs[c]																
Total PCBs	µg/kg-Wet	5	5	100	82.6 JT	480 T	CA11E	183	110 JT	415 V	82.6 JT	480 T	CA11E	183	110 JT	415 V
PCDD/F Homologs																
Total PCDD/F	pg/g-Wet	5	5	100	24.3 JT	42.5 JT	CA10W	30.6	29.3 JT	40.2 JV	24.3 JT	42.5 JT	CA10W	30.6	29.3 JT	40.2 JV
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g-Wet	5	5	100	0.139 JT	0.367 JT	CA02W	0.229	0.22 JT	0.339 JV	0.139 JT	0.367 JT	CA02W	0.229	0.22 JT	0.339 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	5	5	100	0.283 T	1.2 T	CA01E	0.647	0.521 T	1.13 V	0.283 T	1.2 T	CA01E	0.647	0.521 T	1.13 V
Pesticides																
Aldrin	µg/kg-Wet	5	3	60	0.173 J	0.278 J	CA02W	0.213	0.187 J	0.269 JV	0.0679 U	0.278 J	CA02W	0.142	0.173 J	0.26 JV
Dieldrin	µg/kg-Wet	5	5	100	0.339 J	0.593 J	CA02W	0.49	0.504 J	0.592 JV	0.339 J	0.593 J	CA02W	0.49	0.504 J	0.592 JV
gamma-Hexachlorocyclohexane	µg/kg-Wet	5	4	80	0.0224 J	0.0367 J	CA10W	0.0303	0.0311 JV	0.0361 JV	0.0191 U	0.0367 J	CA10W	0.0262	0.0293 J	0.0359 JV
Total Chlordanes	µg/kg-Wet	5	5	100	1.35 JT	3.11 JT	CA02W	2.26	2.46 JT	2.98 JV	1.35 JT	3.11 JT	CA02W	2.26	2.46 JT	2.98 JV
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	5	5	100	1.27 T	10.8 T	CA02W	4.85	2.54 T	10.3 V	1.27 T	10.8 T	CA02W	4.85	2.54 T	10.3 V
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	5	5	100	6.04 JT	27.8 T	CA02W	15.1	11.4 JT	26.9 V	6.04 JT	27.8 T	CA02W	15.1	11.4 JT	26.9 V
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	5	5	100	4.14 JT	15.3 T	CA02W	9.17	8.17 JT	14.9 V	4.14 JT	15.3 T	CA02W	9.17	8.17 JT	14.9 V
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	5	5	100	0.633 JT	1.7 T	CA02W	1.06	0.792 JT	1.64 V	0.633 JT	1.7 T	CA02W	1.06	0.792 JT	1.64 V
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	5	3	60	0.31 J	0.43 J	CA01E; CA11E	0.39	0.43 J	0.43 JV	0.2 U	0.43 J	CA01E; CA11E	0.28	0.31 J	0.43 JV
High Molecular Weight PAH	µg/kg-Wet	5	5	100	18 JT	180 JT	CA02W	62	24 JT	160 JV	18 JT	180 JT	CA02W	62	24 JT	160 JV
Low Molecular Weight PAH	µg/kg-Wet	5	5	100	4.6 JT	41 JT	CA02W	15	8 JT	35 JV	4.6 JT	41 JT	CA02W	15	8 JT	35 JV
Naphthalene	µg/kg-Wet	5	0	0	--	--	--	--	--	--	1.6 U	3.3 U	CA10W	1.2	1.2 U	1.6 UV
Phenanthrene	µg/kg-Wet	5	5	100	2.6	25	CA02W	8.7	4.2	22 V	2.6	25	CA02W	8.7	4.2	22 V
Total BaPEq	µg/kg-Wet	5	5	100	0.294 T	1.05 T	CA02W	0.695	0.691 JT	1.03 JV	0.294 T	1.05 JT	CA02W	0.695	0.691 JT	1.03 JV
Total cPAHs	µg/kg-Wet	5	5	100	6.2 JT	26 JT	CA02W	12	7.1 T	24 JV	6.2 JT	26 JT	CA02W	12	7.1 T	24 JV
Total PAHs	µg/kg-Wet	5	5	100	23 JT	220 JT	CA02W	76	30 JT	190 JV	23 JT	220 JT	CA02W	76	30 JT	190 JV
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg-Wet	4	2	50	89 J	190 J	CA12E	140	140 JV	180 JV	66 U	190 J	CA12E	87	63 JV	170 JV
Butylbenzyl phthalate	µg/kg-Wet	4	0	0	--	--	--	--	--	--	7.3 U	8.2 U	CA02W	3.8	3.7 UV	4 UV

Table 5.5-2. Summary Statistics for Indicator Chemicals for Invertebrate Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg-Wet	4	1	25	27 J	27 J	CA12E	27	27 J	27 J	22 U	27 J	CA12E	15	12 UV	25 JV
Hexachlorobenzene	µg/kg-Wet	5	5	100	0.428	0.663	CA10W	0.534	0.548	0.64 V	0.428	0.663	CA10W	0.534	0.548	0.64 V
Phenols																
Pentachlorophenol	µg/kg-Wet	4	0	0	--	--	--	--	--	--	30 U	34 U	CA02W	16	15 UV	17 UV
Crayfish (whole body)																
Conventionals																
Lipids	percent-Wet	36	36	100	0.16	1.3	08R001	0.812	0.815 V	1.14 V	0.16	1.3	08R001	0.812	0.815 V	1.14 V
Metals																
Arsenic	mg/kg-Wet	36	35	97.2	0.235 T	0.5 J	07R004	0.344	0.35 J	0.422 JV	0.235 T	0.5 J	07R004	0.339	0.35 JV	0.42 JV
Cadmium	mg/kg-Wet	36	36	100	0.007 J	0.036 J	05R003	0.017	0.016 JV	0.0293 JV	0.007 J	0.036 J	05R003	0.017	0.016 JV	0.0293 JV
Chromium	mg/kg-Wet	36	36	100	0.09 J	0.9	02R001; 05R003; 06R001; 07R004	0.43	0.4 V	0.9 V	0.09 J	0.9	02R001; 05R003; 06R001; 07R004	0.43	0.4 V	0.9 V
Copper	mg/kg-Wet	36	36	100	10.4	20.2 T	CR11E	14.8	15 JV	17.9 V	10.4	20.2 T	CR11E	14.8	15 JV	17.9 V
Lead	mg/kg-Wet	36	36	100	0.041 J	1.3 JT	04R002	0.137	0.096 JV	0.232 JV	0.041 J	1.3 JT	04R002	0.137	0.096 JV	0.232 JV
Mercury	mg/kg-Wet	36	36	100	0.0189	0.041	06R001	0.0281	0.0269 V	0.0391 V	0.0189	0.041	06R001	0.0281	0.0269 V	0.0391 V
Nickel	mg/kg-Wet	36	35	97.2	0.18	0.83	07R006	0.371	0.341 T	0.562 JV	0.18	0.83	07R006	0.365	0.331 V	0.56 JV
Zinc	mg/kg-Wet	36	36	100	13.7 J	20.3 J	06R004	17	17 JV	19.8 V	13.7 J	20.3 J	06R004	17	17 JV	19.8 V
Butyltins																
Tributyltin ion	µg/kg-Wet	9	5	56	0.56 J	2.3	CR06W	1.3	1.3 J	2.2 V	0.35 U	2.3	CR06W	0.8	0.56 J	2 V
PCB Aroclors																
Aroclors	µg/kg-Wet	27	12	44	16 T	280 T	03R005	64	44 JV	190 V	1.7 UT	280 T	03R005	29	3.5 UT	95 V
PCB Congeners																
Total PCB Congeners	pg/g-Wet	19	19	100	7140 JT	1190000 JT	CR11E	104000	31500 NJT	305000 JV	7140 JT	1190000 JT	CR11E	104000	31500 NJT	305000 JV
Total PCBs[d]																
Total PCBs	µg/kg-Wet	36	26	72.2	7.14 JT	1190 JT	CR11E	86	34.9 JV	176 JV	1.7 UT	1190 JT	CR11E	62.6	23.2 JV	114 JV
PCDD/F Homologs																
Total PCDD/F	pg/g-Wet	19	19	100	9.46 T	281 T	07R006	49.2	34.9 T	131 V	9.46 T	281 T	07R006	49.2	34.9 T	131 V
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g-Wet	19	19	100	0.203 JT	18.2 T	07R006	1.58	0.588 JT	3.49 V	0.203 JT	18.2 T	07R006	1.58	0.588 JT	3.49 V
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	19	19	100	0.172 T	3.89 T	CR11E	0.951	0.477 T	3.2 V	0.172 T	3.89 T	CR11E	0.951	0.477 T	3.2 V
Pesticides																
Aldrin	µg/kg-Wet	36	1	2.78	0.037 J	0.037 J	CR08W	0.037	0.037 J	0.037 J	0.00171 UT	2 U	07R003	0.39	0.5 UV	0.5 UV
Dieldrin	µg/kg-Wet	36	8	22.2	0.00943 JT	0.0471 J	CR08W	0.0177	0.0146 JV	0.0364 JV	0.00943 JT	2 UJ	07R003	0.393	0.5 UV	0.5 UV
gamma-Hexachlorocyclohexane	µg/kg-Wet	36	0	0	--	--	--	--	--	--	0.00156 U	2 U	07R003	0.39	0.5 UV	0.5 UV
Total Chlordanes	µg/kg-Wet	36	14	38.9	0.164 JT	2.7 NJT	04R004	0.749	0.358 JV	2.18 JV	0.164 JT	2.7 NJT	04R004	0.663	0.5 UJV	1.45 JV
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	36	14	38.9	0.0366 JT	21.3 NJT	07R006	2.86	0.283 JV	13.7 JV	0.0366 JT	21.3 NJT	07R006	1.42	0.5 UJV	4.73 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	36	36	100	1.12 JT	84.9 NJT	07R006	9.38	5.9 JV	22.3 JV	1.12 JT	84.9 NJT	07R006	9.38	5.9 JV	22.3 JV
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	36	36	100	1.06 JT	51 T	07R006	5.44	3.5 JV	10.4 JV	1.06 JT	51 T	07R006	5.44	3.5 JV	10.4 JV
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	36	21	58.3	0.0982 JT	17.5 NJT	07R003	4.85	3 NJT	12.6 NT	0.0113 UT	17.5 NJT	07R003	3.14	1.8 JV	10.3 V

Table 5.5-2. Summary Statistics for Indicator Chemicals for Invertebrate Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	36	9	25	0.12 J	7.5	CR06W	1.1	0.28 J	4.7 V	0.12 J	37 UT	07R004	12	17 UV	17 UV
High Molecular Weight PAH	µg/kg-Wet	36	12	33	0.12 JT	380 JT	06R004	60	0.43 JV	260 JV	0.12 JT	380 JT	06R004	37	17 UV	110 JV
Low Molecular Weight PAH	µg/kg-Wet	36	10	28	0.8 JT	97 T	06R004	13	1.4 JV	63 JV	0.8 JT	97 T	06R004	24	17 UV	45 UV
Naphthalene	µg/kg-Wet	36	9	25	0.47 JT	2.9 J	CR06W	0.82	0.6 J	2 JV	0.47 JT	82 UT	07R004	20	17 UV	35 UV
Phenanthrene	µg/kg-Wet	36	2	5.6	7.6	97 T	06R004	52	52 V	93 V	0.46 UT	97 T	06R004	16	17 UV	43 UV
Total BaPEq	µg/kg-Wet	35	10	28.6	0.12 JT	10.1 JT	CR06W	2.04	0.293 JV	9.2 JV	0.12 JT	37 UT	07R004	12.2	16.5 UT	16.5 UV
Total cPAHs	µg/kg-Wet	36	10	28.6	0.12 JT	170 JT	06R004	22	0.3 JV	110 JV	0.12 JT	170 JT	06R004	18	17 UV	25 V
Total PAHs	µg/kg-Wet	36	12	33.3	0.99 JT	477 JT	06R004	71.2	2.7 JV	308 JV	0.99 JT	477 JT	06R004	43.4	16.5 UV	116 JV
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg-Wet	36	0	0	--	--	--	--	--	--	66 U	270 UJT	07R006	58	50 UJV	100 UV
Butylbenzyl phthalate	µg/kg-Wet	36	3	8.3	15 J	71 T	CR11E	38	27 J	67 JV	7.3 U	370 U	07R004	130	170 UV	170 UV
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg-Wet	36	2	5.6	26 J	28 J	CR01EA	27	27 JV	28 JV	22 U	370 U	07R004	130	170 UV	170 UV
Hexachlorobenzene	µg/kg-Wet	36	9	25	0.0357 JT	0.0911 J	CR12W	0.0569	0.0509 J	0.0885 JV	0.0357 JT	2 UT	07R003	0.403	0.5 UV	0.5 UV
Phenols																
Pentachlorophenol	µg/kg-Wet	36	1	2.8	130 T	130 T	08R003	130	130 T	130 T	30 UJ	190 UT	07R004	69	85 UV	88 UV
Epibenthic invertebrates (whole body)																
Metals																
Arsenic	mg/kg-Wet	2	2	100	0.349	0.45	MIT001	0.4	0.4 V	0.445 V	0.349	0.45	MIT001	0.4	0.4 V	0.445 V
Cadmium	mg/kg-Wet	2	2	100	0.0321	0.0366	MIT009	0.0344	0.0344 V	0.0364 V	0.0321	0.0366	MIT009	0.0344	0.0344 V	0.0364 V
Chromium	mg/kg-Wet	2	2	100	0.64	1.73	MIT009	1.19	1.19 V	1.68 V	0.64	1.73	MIT009	1.19	1.19 V	1.68 V
Copper	mg/kg-Wet	2	2	100	3.01 J	6 J	MIT001	4.51	4.51 JV	5.85 JV	3.01 J	6 J	MIT001	4.51	4.51 JV	5.85 JV
Lead	mg/kg-Wet	2	2	100	0.245 J	1.06 J	MIT009	0.653	0.653 JV	1.02 JV	0.245 J	1.06 J	MIT009	0.653	0.653 JV	1.02 JV
Nickel	mg/kg-Wet	2	2	100	0.401	1.12	MIT009	0.761	0.761 V	1.08 V	0.401	1.12	MIT009	0.761	0.761 V	1.08 V
Zinc	mg/kg-Wet	2	2	100	12.6 J	24.8 J	MIT009	18.7	18.7 JV	24.2 JV	12.6 J	24.8 J	MIT009	18.7	18.7 JV	24.2 JV
PCB Congeners																
Total PCB Congeners	pg/g-Wet	7	7	100	33100 JT	498000 T	MIT004	112000	45600 T	372000 V	33100 JT	498000 T	MIT004	112000	45600 T	372000 V
Total PCBs[c]																
Total PCBs	µg/kg-Wet	7	7	100	33.1 JT	498 T	MIT004	112	45.6 T	372 V	33.1 JT	498 T	MIT004	112	45.6 T	372 V
PCDD/F Homologs																
Total PCDD/F	pg/g-Wet	7	7	100	49.1 T	213 T	MIT009	119	108 T	205 JV	49.1 T	213 T	MIT009	119	108 T	205 JV
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g-Wet	7	7	100	0.275 JT	3.34 JT	MIT356	0.88	0.449 JT	2.56 JV	0.275 JT	3.34 JT	MIT356	0.88	0.449 JT	2.56 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	7	7	100	0.0652 T	0.52 T	MIT009	0.328	0.341 T	0.516 V	0.0652 T	0.52 T	MIT009	0.328	0.341 T	0.516 V
Pesticides																
Aldrin	µg/kg-Wet	7	6	85.7	0.00926 J	0.0872	MIT810	0.0464	0.0382 JV	0.0861 V	0.00926 J	0.0872	MIT810	0.0407	0.025 J	0.0859 V
Dieldrin	µg/kg-Wet	7	7	100	0.098	0.396	MIT356	0.238	0.228	0.386 V	0.098	0.396	MIT356	0.238	0.228	0.386 V
gamma-Hexachlorocyclohexane	µg/kg-Wet	7	4	57.1	0.0111 J	0.0214 J	MIT356	0.0145	0.0127 JV	0.0201 JV	0.00458 U	0.0214 J	MIT356	0.0111	0.0111 J	0.0189 JV
Total Chlordanes	µg/kg-Wet	7	7	100	0.313 JT	2.06 JT	MIT356	1.1	0.852 JT	1.96 JV	0.313 JT	2.06 JT	MIT356	1.1	0.852 JT	1.96 JV
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	7	7	100	0.782 T	44.4 T	MIT356	7.88	1.22 T	32.4 V	0.782 T	44.4 T	MIT356	7.88	1.22 T	32.4 V
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	7	7	100	2.67 T	94.8 T	MIT356	18.4	4.73 JT	69.9 V	2.67 T	94.8 T	MIT356	18.4	4.73 JT	69.9 V
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	7	7	100	1.28 T	30.7 T	MIT356	7.45	3.21 T	23.5 V	1.28 T	30.7 T	MIT356	7.45	3.21 T	23.5 V
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	7	7	100	0.0502 T	19.7 T	MIT356	3.06	0.288 T	14 V	0.0502 T	19.7 T	MIT356	3.06	0.288 T	14 V
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-Wet	7	7	100	0.12	0.544	MIT356	0.297	0.264	0.484 V	0.12	0.544	MIT356	0.297	0.264	0.484 V

Table 5.5-2. Summary Statistics for Indicator Chemicals for Invertebrate Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Lab-exposed clam (Corbicula fluminea – body without shell)																
Conventionals																
Lipids	percent-Wet	45	45	100	0.527	2.29	BT024	1.02	0.92	1.91 V	0.527	2.29	BT024	1.02	0.92	1.91 V
Metals																
Arsenic	mg/kg-Wet	45	45	100	0.303 JT	0.548	BT023	0.427	0.419 J	0.54 V	0.303 JT	0.548	BT023	0.427	0.419 J	0.54 V
Cadmium	mg/kg-Wet	45	45	100	0.0383 T	0.0666	BT023	0.0515	0.0499	0.0598 JV	0.0383 T	0.0666	BT023	0.0515	0.0499	0.0598 JV
Chromium	mg/kg-Wet	45	45	100	0.084	0.49	BT033	0.195	0.19	0.324 V	0.084	0.49	BT033	0.195	0.19	0.324 V
Copper	mg/kg-Wet	45	45	100	2.64 T	5.94 J	BT023	3.86	3.78	4.65 JV	2.64 T	5.94 J	BT023	3.86	3.78	4.65 JV
Lead	mg/kg-Wet	45	45	100	0.033	0.221	BT002	0.055	0.047	0.0804 V	0.033	0.221	BT002	0.055	0.047	0.0804 V
Mercury	mg/kg-Wet	45	45	100	0.00705 T	0.0162	BT022	0.00984	0.0095	0.0124 V	0.00705 T	0.0162	BT022	0.00984	0.0095	0.0124 V
Nickel	mg/kg-Wet	45	45	100	0.0753	0.313 J	BT033	0.138	0.137	0.185 JV	0.0753	0.313 J	BT033	0.138	0.137	0.185 JV
Zinc	mg/kg-Wet	45	45	100	10.2	16.8	BT030	13	12.5	15.7 V	10.2	16.8	BT030	13	12.5	15.7 V
Butyltins																
Tributyltin ion	µg/kg-Wet	45	19	42	0.45 J	680	BT023	42	3.7	99 V	0.45 J	680	BT023	18	0.9 U	15 V
PCB Aroclors																
Aroclors	µg/kg-Wet	10	10	100	11 JT	22 T	WR-VC-108	15	16 V	20 JV	11 JT	22 T	WR-VC-108	15	16 V	20 V
PCB Congeners																
Total PCB Congeners	pg/g-Wet	35	35	100	19100 JT	189000 T	BT028	43100	28000 JT	107000 JV	19100 JT	189000 T	BT028	43100	28000 JT	107000 JV
Total PCBs[c]																
Total PCBs	µg/kg-Wet	35	35	100	19.1 JT	189 T	BT028	43.1	28 JT	107 JV	19.1 JT	189 T	BT028	43.1	28 JT	107 JV
PCDD/F Homologs																
Total PCDD/F	pg/g-Wet	35	35	100	4.48 JT	696 JT	BT017	42	12.3 JT	109 JV	4.48 JT	696 JT	BT017	42	12.3 JT	109 JV
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g-Wet	35	35	100	0.000714 T	40.5 JT	BT017	1.4	0.12 JT	1.42 JV	0.000714 T	40.5 JT	BT017	1.4	0.12 JT	1.42 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	45	44	97.8	0.036 T	1.56 T	BT017	0.376	0.348 V	1.04 V	0.036 T	12 UT	WR-VC-28	0.501	0.361 T	1.19 V
Pesticides																
Aldrin	µg/kg-Wet	45	28	62.2	0.0118 J	2.14	BT028	0.102	0.0219 JV	0.0562 JV	0.0118 J	2.14	BT028	0.0911	0.0246 J	0.075 UV
Dieldrin	µg/kg-Wet	45	36	80	0.139 J	4.14	BT028	0.359	0.193 V	0.65 V	0.139 J	4.14	BT028	0.343	0.202	0.607 V
gamma-Hexachlorocyclohexane	µg/kg-Wet	45	27	60	0.0314 J	0.21 J	WR-VC-72	0.0637	0.0519 J	0.106 JV	0.0307 U	0.67 U	WR-VC-28	0.0661	0.0519 J	0.107 JV
Total Chlordanes	µg/kg-Wet	45	45	100	1.61 JT	8.2 JT	WR-VC-108	3.73	2.71 JT	7.28 JV	1.61 JT	8.2 JT	WR-VC-108	3.73	2.71 JT	7.28 JV
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	45	45	100	0.511 JT	941 T	BT018	24.9	0.995 JT	9.73 V	0.511 JT	941 T	BT018	24.9	0.995 JT	9.73 V
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	45	45	100	1.13 JT	1040 T	BT018	29.1	2.67 JT	16 JV	1.13 JT	1040 T	BT018	29.1	2.67 JT	16 JV
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	45	45	100	0.526 JT	11.2 T	BT018	1.66	0.936 JT	6.26 JV	0.526 JT	11.2 T	BT018	1.66	0.936 JT	6.26 JV
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	45	42	93.3	0.075 JT	87.1 T	BT018	2.66	0.161 JV	3.26 V	0.075 JT	87.1 T	BT018	2.49	0.146 JT	3.01 V
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	45	43	96	0.42 J	33	BT012	2.1	0.63	8.5 V	0.12 U	33	BT012	2.1	0.63	8.3 V
High Molecular Weight PAH	µg/kg-Wet	45	45	100	13.1 JT	1170 T	BT012	113	35.5 JT	645 JV	13.1 JT	1170 T	BT012	113	35.5 JT	645 JV
Low Molecular Weight PAH	µg/kg-Wet	45	45	100	5.07 JT	168 T	WR-VC-46	24.7	10.6 JT	144 V	5.07 JT	168 T	WR-VC-46	24.7	10.6 JT	144 V
Naphthalene	µg/kg-Wet	45	1	2.2	5.1	5.1	BT014	5.1	5.1	5.1	0.33 U	5.1	BT014	0.63	0.5 U	1.1 UV
Phenanthrene	µg/kg-Wet	45	45	100	3.5	140	WR-VC-46	17	7.1	100 V	3.5	140	WR-VC-46	17	7.1	100 V
Total BaPEq	µg/kg-Wet	45	45	100	0.0407 JT	45.9 JT	BT012	3.06	0.859 JT	12.7 JV	0.0407 JT	45.9 T	BT012	3.06	0.859 JT	12.7 JV
Total cPAHs	µg/kg-Wet	45	45	100	2.1 JT	270 T	BT012	22	6.8 JT	98 JV	2.1 JT	270 T	BT012	22	6.8 JT	98 JV
Total PAHs	µg/kg-Wet	45	45	100	18.2 JT	1320 T	BT012	138	45.9 JT	811 JV	18.2 JT	1320 T	BT012	138	45.9 JT	811 JV

Table 5.5-2. Summary Statistics for Indicator Chemicals for Invertebrate Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg-Wet	45	37	82	53 J	8600	BT028	360	100 J	340 JV	53 J	8600	BT028	300	88 J	330 JV
Butylbenzyl phthalate	µg/kg-Wet	45	0	0	--	--	--	--	--	--	14 UJ	14 UJ	BT001; BT002; BT003; BT004; BT005; BT0061; BT0062; BT007; BT008; BT009; BT010; BT011; BT012; BT013; BT014; BT015; BT016; BT017; BT018; BT019; BT020; BT021; BT022; BT023; BT024; BT025; BT026; BT0271; BT0272; BT028; BT029; BT030; BT031; BT032; BT033; WR-VC-	7	7 U	7 UV
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg-Wet	45	37	82	6.7 J	51	WR-VC-72	15	12 J	29 JV	6.7 J	51	WR-VC-72	13	9.5 J	28 JV
Hexachlorobenzene	µg/kg-Wet	45	34	75.6	0.0292 J	0.275	BT017	0.0625	0.0468 JV	0.108 JV	0.0292 J	0.275	BT017	0.0745	0.0529 J	0.12 UV
Phenols																
Pentachlorophenol	µg/kg-Wet	28	0	0	--	--	--	--	--	--	31 U	31 U	BT001; BT002; BT003; BT004; BT005; BT0061; BT0062; BT009; BT010; BT011; BT012; BT014; BT015; BT016; BT018; BT019; BT023; BT033; WR-VC-108; WR-VC-11; WR-VC-118; WR-VC-28; WR-VC-29; WR-VC-43; WR-VC-46; WR-VC-57; WR-VC-66; WR-VC-72	16	16 UV	16 UV
Lab-exposed worm (Lumbriculus variegatus – whole body)																
Conventionals																
Lipids	percent-Wet	45	45	100	1.35	3.46	BT023	2.32	2.32	2.9 V	1.35	3.46	BT023	2.32	2.32	2.9 V
Metals																
Arsenic	mg/kg-Wet	45	45	100	0.246 J	3.04	BT019	1.03	0.895	1.92 V	0.246 J	3.04	BT019	1.03	0.895	1.92 V
Cadmium	mg/kg-Wet	45	45	100	0.0364	0.254	BT007	0.0698	0.0561 J	0.114 JV	0.0364	0.254	BT007	0.0698	0.0561 J	0.114 JV
Chromium	mg/kg-Wet	45	43	95.6	0.0952	0.89	BT025	0.44	0.42	0.778 V	0.0384 U	0.89	BT025	0.421	0.41	0.776 V
Copper	mg/kg-Wet	45	45	100	1.83 T	20.2	BT023	2.82	2.35	3.29 V	1.83 T	20.2	BT023	2.82	2.35	3.29 V
Lead	mg/kg-Wet	45	45	100	0.122	0.847 T	BT008	0.334	0.287 T	0.663 V	0.122	0.847 T	BT008	0.334	0.287 T	0.663 V
Mercury	mg/kg-Wet	44	43	97.7	0.00206 J	0.0105	BT016	0.00492	0.0041	0.00901 V	0.0009 U	0.0105	BT016	0.00482	0.00405 V	0.00897 V
Nickel	mg/kg-Wet	45	45	100	0.132 J	0.535	BT025	0.34	0.328	0.523 V	0.132 J	0.535	BT025	0.34	0.328	0.523 V
Zinc	mg/kg-Wet	45	45	100	18.2 T	31.5	BT007	26.4	26.3	30.7 V	18.2 T	31.5	BT007	26.4	26.3	30.7 V
Butyltins																
Tributyltin ion	µg/kg-Wet	45	25	56	0.89 J	1700	BT023	77	5.7	45 V	0.44 U	1700	BT023	43	2.1	29 V
PCB Aroclors																
Aroclors	µg/kg-Wet	10	10	100	55 T	470 JT	WR-VC-108	180	150 V	380 JV	55 T	470 JT	WR-VC-108	180	150 V	380 JV
PCB Congeners																
Total PCB Congeners	pg/g-Wet	35	35	100	44800 JT	4310000 JT	BT028	612000	168000 JT	3250000 V	44800 JT	4310000 JT	BT028	612000	168000 JT	3250000 V
Total PCBs[c]																
Total PCBs	µg/kg-Wet	35	35	100	44.8 JT	4310 JT	BT028	612	168 JT	3250 V	44.8 JT	4310 JT	BT028	612	168 JT	3250 V

Table 5.5-2. Summary Statistics for Indicator Chemicals for Invertebrate Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
PCDD/F Homologs																
Total PCDD/F	pg/g-Wet	35	35	100	51 JT	6440 T	BT017	360	114 T	582 V	51 JT	6440 T	BT017	360	114 T	582 V
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g-Wet	35	35	100	0.743 JT	448 JT	BT017	16.5	2.29 JT	18.3 JV	0.743 JT	448 JT	BT017	16.5	2.29 JT	18.3 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	45	45	100	0.0723 NJT	31.6 T	BT002	3.27	1.17 T	13.3 V	0.0723 NJT	31.6 T	BT002	3.27	1.17 T	13.3 V
Pesticides																
Aldrin	µg/kg-Wet	45	35	77.8	0.043 J	37	BT028	1.49	0.429 J	0.928 V	0.043 J	37	BT028	1.22	0.424 J	0.883 JV
Dieldrin	µg/kg-Wet	45	35	77.8	0.127 J	26.7	BT028	1.18	0.374	1.05 V	0.075 U	26.7	BT028	1.05	0.402	1.15 V
gamma-Hexachlorocyclohexane	µg/kg-Wet	45	17	37.8	0.00666 J	0.021 J	BT004	0.0136	0.0127 J	0.0194 JV	0.00666 J	1.2 U	WR-VC-108	0.0663	0.016 J	0.274 UV
Total Chlordanes	µg/kg-Wet	45	45	100	1.89 JT	71.9 T	BT028	6.51	4.31 JT	10.2 JV	1.89 JT	71.9 T	BT028	6.51	4.31 JT	10.2 JV
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	45	45	100	4.78 T	1260 T	BT017	79.6	15.5 T	273 V	4.78 T	1260 T	BT017	79.6	15.5 T	273 V
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	45	45	100	14.5 JT	1490 T	BT017	114	40.7 JT	372 JV	14.5 JT	1490 T	BT017	114	40.7 JT	372 JV
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	45	45	100	9.66 JT	188 T	BT017	30	19 T	81.3 JV	9.66 JT	188 T	BT017	30	19 T	81.3 JV
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	45	44	97.8	0.0456 JT	37.9 T	BT018	4.66	0.557 JV	27.8 JV	0.0456 JT	37.9 T	BT018	4.56	0.541 JT	27.1 JV
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	45	45	100	2.2	1500	BT014	100	17	680 V	2.2	1500	BT014	100	17	680 V
High Molecular Weight PAH	µg/kg-Wet	45	45	100	70.7 T	33600 T	BT014	2470	486 T	13600 V	70.7 T	33600 T	BT014	2470	486 T	13600 V
Low Molecular Weight PAH	µg/kg-Wet	45	45	100	12.3 T	3760 T	BT015	418	55.2 T	3460 V	12.3 T	3760 T	BT015	418	55.2 T	3460 V
Naphthalene	µg/kg-Wet	45	6	13	2.9	31	BT015	11	7.6 V	26 V	0.46 U	31	BT015	2.1	0.75 U	7.6 V
Phenanthrene	µg/kg-Wet	45	45	100	4.1	2800	WR-VC-46	270	31	2200 V	4.1	2800	WR-VC-46	270	31	2200 V
Total BaPEq	µg/kg-Wet	45	45	100	3.81 T	2090 T	BT014	148	28.6 T	912 V	3.81 T	2090 T	BT014	148	28.6 T	912 V
Total cPAHs	µg/kg-Wet	45	45	100	36 T	12000 T	BT014	900	210 T	4400 V	36 T	12000 T	BT014	900	210 T	4400 V
Total PAHs	µg/kg-Wet	45	45	100	83 T	37300 T	BT014	2890	550 T	17400 V	83 T	37300 T	BT014	2890	550 T	17400 V
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg-Wet	45	27	60	69 J	220 J	BT010; BT023	130	120 J	210 JV	53 U	530 U	WR-VC-108	95	100 J	220 JV
Butylbenzyl phthalate	µg/kg-Wet	45	0	0	--	--	--	--	--	--	14 U	140 U	WR-VC-108	8.9	7 U	14 UV
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg-Wet	45	45	100	280	4900 J	BT020	1500	990	4000 JV	280	4900 J	BT020	1500	990	4000 JV
Hexachlorobenzene	µg/kg-Wet	45	37	82.2	0.242 J	2.69	BT017	0.629	0.488	1.16 V	0.24 U	2.69	BT017	0.548	0.46 J	1.14 V
Phenols																
Pentachlorophenol	µg/kg-Wet	28	0	0	--	--	--	--	--	--	31 U	310 U	WR-VC-108	20	16 UV	16 UV
Mussel (body without shell)																
Conventionals																
Lipids	percent-Wet	7	7	100	0.18	0.64	FM025	0.4	0.4	0.6 V	0.18	0.64	FM025	0.4	0.4	0.6 V
Metals																
Arsenic	mg/kg-Wet	7	7	100	0.224	0.616	FM021	0.385	0.35	0.563 V	0.224	0.616	FM021	0.385	0.35	0.563 V
Cadmium	mg/kg-Wet	7	7	100	0.0905	0.188	FM006	0.123	0.108	0.174 V	0.0905	0.188	FM006	0.123	0.108	0.174 V
Chromium	mg/kg-Wet	7	3	42.9	0.21	0.28	FM006	0.248	0.255 JT	0.278 JV	0.13 U	0.34 U	FM025	0.183	0.17 U	0.273 JV
Copper	mg/kg-Wet	7	7	100	1.01	1.82	FM006	1.39	1.37 T	1.78 V	1.01	1.82	FM006	1.39	1.37 T	1.78 V
Lead	mg/kg-Wet	7	7	100	0.0386	0.22	FM006	0.139	0.118	0.217 V	0.0386	0.22	FM006	0.139	0.118	0.217 V
Mercury	mg/kg-Wet	7	7	100	0.0022 J	0.0061 J	FM021	0.00424	0.0048 J	0.00589 JV	0.0022 J	0.0061 J	FM021	0.00424	0.0048 J	0.00589 JV
Nickel	mg/kg-Wet	7	7	100	0.308	0.712	FM021	0.456	0.41	0.652 V	0.308	0.712	FM021	0.456	0.41	0.652 V
Zinc	mg/kg-Wet	7	7	100	15.7	41.5	FM021	27	27.4	39.1 V	15.7	41.5	FM021	27	27.4	39.1 V
Butyltins																
Tributyltin ion	µg/kg-Wet	7	7	100	2.2 J	16 J	FM006	5.8	4.1 J	13 JV	2.2 J	16 J	FM006	5.8	4.1 J	13 JV
PCB Congeners																
Total PCB Congeners	pg/g-Wet	7	7	100	5750 JT	108000 JT	FM006	25700	12500 JT	82200 JV	5750 JT	108000 JT	FM006	25700	12500 JT	82200 JV

Table 5.5-2. Summary Statistics for Indicator Chemicals for Invertebrate Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Total PCBs[c]																
Total PCBs	µg/kg-Wet	7	7	100	5.75 JT	108 JT	FM006	25.7	12.5 JT	82.2 JV	5.75 JT	108 JT	FM006	25.7	12.5 JT	82.2 JV
PCDD/F Homologs																
Total PCDD/F	pg/g-Wet	7	7	100	14.4 JT	66.2 JT	FM006	38.7	40.1 T	63.1 JV	14.4 JT	66.2 JT	FM006	38.7	40.1 T	63.1 JV
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g-Wet	7	7	100	0.0704 JT	0.446 JT	FM006	0.231	0.176 JT	0.428 JV	0.0704 JT	0.446 JT	FM006	0.231	0.176 JT	0.428 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	7	7	100	0.0101 T	1.09 T	FM006	0.259	0.132 T	0.827 V	0.0101 T	1.09 T	FM006	0.259	0.132 T	0.827 V
Pesticides																
Aldrin	µg/kg-Wet	7	4	57.1	0.007 J	0.067 J	FM025	0.023	0.009 JV	0.0585 JV	0.005 UJ	0.067 J	FM025	0.0143	0.007 J	0.0499 JV
Dieldrin	µg/kg-Wet	7	7	100	0.0742 J	0.186 J	FM025	0.136	0.143 J	0.177 JV	0.0742 J	0.186 J	FM025	0.136	0.143 J	0.177 JV
gamma-Hexachlorocyclohexane	µg/kg-Wet	7	1	14.3	0.007 J	0.007 J	FM006	0.007	0.007 J	0.007 J	0.003 UJ	0.062 UJ	FM033	0.0123	0.0147 UJ	0.0263 UJV
Total Chlordanes	µg/kg-Wet	7	7	100	0.191 JT	0.866 JT	FM025	0.451	0.434 JT	0.763 JV	0.191 JT	0.866 JT	FM025	0.451	0.434 JT	0.763 JV
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	7	7	100	0.309 JT	1.34 JT	FM006	0.715	0.644 JT	1.27 JV	0.309 JT	1.34 JT	FM006	0.715	0.644 JT	1.27 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	7	7	100	0.979 JT	4.44 JT	FM025	2.47	2.62 JT	4.05 JV	0.979 JT	4.44 JT	FM025	2.47	2.62 JT	4.05 JV
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	7	7	100	0.544 JT	3.25 JT	FM025	1.51	1.48 JT	2.8 JV	0.544 JT	3.25 JT	FM025	1.51	1.48 JT	2.8 JV
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	7	7	100	0.126 JT	0.321 JT	FM006	0.241	0.244 JT	0.309 JV	0.126 JT	0.321 JT	FM006	0.241	0.244 JT	0.309 JV
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	7	7	100	0.51 J	5.2 J	FM006	1.4	0.79 J	4 JV	0.51 J	5.2 J	FM006	1.4	0.79 J	4 JV
High Molecular Weight PAH	µg/kg-Wet	7	7	100	13 JT	130 JT	FM006	35	19 JT	99 JV	13 JT	130 JT	FM006	35	19 JT	99 JV
Low Molecular Weight PAH	µg/kg-Wet	7	7	100	3 JT	14 JT	FM006	8.2	8.4 JT	13 JV	3 JT	14 JT	FM006	8.2	8.4 JT	13 JV
Naphthalene	µg/kg-Wet	7	7	100	1.1 J	2.1 J	FM033	1.5	1.5 J	2 JV	1.1 J	2.1 J	FM033	1.5	1.5 J	2 JV
Phenanthrene	µg/kg-Wet	7	7	100	1.4 J	8.4 J	FM006	3.7	2.9 J	7.2 JV	1.4 J	8.4 J	FM006	3.7	2.9 J	7.2 JV
Total BaPEq	µg/kg-Wet	7	7	100	0.693 JT	8.55 JT	FM006	2.12	1.07 JT	6.44 JV	0.693 JT	8.55 JT	FM006	2.12	1.07 JT	6.44 JV
Total cPAHs	µg/kg-Wet	7	7	100	4.6 JT	63 JT	FM006	14	6.7 JT	47 JV	4.6 JT	63 JT	FM006	14	6.7 JT	47 JV
Total PAHs	µg/kg-Wet	7	7	100	16 JT	150 JT	FM006	44	24 JT	120 JV	16 JT	150 JT	FM006	44	24 JT	120 JV
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg-Wet	7	4	57	54 J	120 J	FM006	91	94 JV	120 JV	49 UJ	120 J	FM006	66	54 J	110 JV
Butylbenzyl phthalate	µg/kg-Wet	7	0	0	--	--	--	--	--	--	130 UJ	260 UJ	FM004; FM006; FM033	93	65 UJ	130 UJV
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg-Wet	7	3	43	22 J	170 J	FM033	80	48 J	160 JV	22 J	170 J	FM033	42	22 J	130 JV
Hexachlorobenzene	µg/kg-Wet	7	7	100	0.063 J	0.181 J	FM025	0.122	0.125 J	0.17 JV	0.063 J	0.181 J	FM025	0.122	0.125 J	0.17 JV
Phenols																
Pentachlorophenol	µg/kg-Wet	7	0	0	--	--	--	--	--	--	20 UJ	40 UJ	FM004; FM006	14	10 UJ	20 UJV
Sturgeon (stomach contents)																
Conventionals																
Lipids	percent-Wet	3	3	100	0.37 T	1.7	STWB03	0.95	0.79	1.6 V	0.37 T	1.7	STWB03	0.95	0.79	1.6 V
Metals																
Arsenic	mg/kg-Wet	3	3	100	0.17 T	0.82	STWB03	0.45	0.35	0.77 V	0.17 T	0.82	STWB03	0.45	0.35	0.77 V
Cadmium	mg/kg-Wet	3	3	100	0.008 T	0.054	STWB03	0.033	0.037	0.0523 V	0.008 T	0.054	STWB03	0.033	0.037	0.0523 V
Chromium	mg/kg-Wet	3	3	100	0.15 JT	4.1	STWB03	1.6	0.5	3.7 V	0.15 JT	4.1	STWB03	1.6	0.5	3.7 V
Copper	mg/kg-Wet	3	3	100	6.73 J	11 J	STWB01	8.51	7.8 JT	10.7 JV	6.73 J	11 J	STWB01	8.51	7.8 JT	10.7 JV
Lead	mg/kg-Wet	3	3	100	0.103 T	1.5	STWB03	0.581	0.139	1.36 V	0.103 T	1.5	STWB03	0.581	0.139	1.36 V
Mercury	mg/kg-Wet	3	3	100	0.0073 J	0.0119 J	STWB03	0.0102	0.0115 J	0.0119 JV	0.0073 J	0.0119 J	STWB03	0.0102	0.0115 J	0.0119 JV
Nickel	mg/kg-Wet	3	3	100	0.267	2.33	STWB03	1.08	0.631 T	2.16 V	0.267	2.33	STWB03	1.08	0.631 T	2.16 V
Zinc	mg/kg-Wet	3	3	100	9.56 T	19.1	STWB01	15.8	18.8	19.1 V	9.56 T	19.1	STWB01	15.8	18.8	19.1 V

Table 5.5-2. Summary Statistics for Indicator Chemicals for Invertebrate Tissues from the Study Area and Adjacent Locations.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
PCB Congeners																
Total PCB Congeners	pg/g-Wet	1	1	100	10600 JT	10600 JT	STWB04	10600	10600 JT	10600 JT	10600 JT	10600 JT	STWB04	10600	10600 JT	10600 JT
Total PCBs[c]																
Total PCBs	µg/kg-Wet	1	1	100	10.6 JT	10.6 JT	STWB04	10.6	10.6 JT	10.6 JT	10.6 JT	10.6 JT	STWB04	10.6	10.6 JT	10.6 JT
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	1	1	100	0.0242 T	0.0242 T	STWB04	0.0242	0.0242 T	0.0242 T	0.0242 T	0.0242 T	STWB04	0.0242	0.0242 T	0.0242 T
Pesticides																
Aldrin	µg/kg-Wet	1	1	100	0.00442 J	0.00442 J	STWB04	0.00442	0.00442 J	0.00442 J	0.00442 J	0.00442 J	STWB04	0.00442	0.00442 J	0.00442 J
Dieldrin	µg/kg-Wet	1	1	100	0.359	0.359	STWB04	0.359	0.359	0.359	0.359	0.359	STWB04	0.359	0.359	0.359
gamma-Hexachlorocyclohexane	µg/kg-Wet	1	0	0	--	--	--	--	--	--	0.0188 U	0.0188 U	STWB04	0.0094	0.0094 U	0.0094 U
Total Chlordanes	µg/kg-Wet	1	1	100	0.914 JT	0.914 JT	STWB04	0.914	0.914 JT	0.914 JT	0.914 JT	0.914 JT	STWB04	0.914	0.914 JT	0.914 JT
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	1	1	100	0.22 JT	0.22 JT	STWB04	0.22	0.22 JT	0.22 JT	0.22 JT	0.22 JT	STWB04	0.22	0.22 JT	0.22 JT
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	1	1	100	3.61 JT	3.61 JT	STWB04	3.61	3.61 JT	3.61 JT	3.61 JT	3.61 JT	STWB04	3.61	3.61 JT	3.61 JT
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	1	1	100	3.19 JT	3.19 JT	STWB04	3.19	3.19 JT	3.19 JT	3.19 JT	3.19 JT	STWB04	3.19	3.19 JT	3.19 JT
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	1	1	100	0.198 JT	0.198 JT	STWB04	0.198	0.198 JT	0.198 JT	0.198 JT	0.198 JT	STWB04	0.198	0.198 JT	0.198 JT
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	3	2	66.7	2.2	210	STWB03	106	106 V	200 V	0.081 U	210	STWB03	70.7	2.2	189 V
High Molecular Weight PAH	µg/kg-Wet	3	3	100	0.98 JT	5100 T	STWB03	1700	35 T	4600 V	0.98 JT	5100 T	STWB03	1700	35 T	4600 V
Low Molecular Weight PAH	µg/kg-Wet	3	3	100	2.6 JT	3800 T	STWB03	1300	2.6 JT	3400 JV	2.6 JT	3800 T	STWB03	1300	2.6 JT	3400 JV
Naphthalene	µg/kg-Wet	3	1	33	260	260	STWB03	260	260	260	1.4 U	260	STWB03	87	0.75 U	230 V
Phenanthrene	µg/kg-Wet	3	3	100	0.76	2300	STWB03	770	1.1	2100 V	0.76	2300	STWB03	770	1.1	2100 V
Total BaPEq	µg/kg-Wet	3	2	66.7	3.12 T	341 T	STWB03	172	172 V	324 V	0.081 UT	341 T	STWB03	115	3.12 T	307 V
Total cPAHs	µg/kg-Wet	3	2	66.7	19 T	2000 T	STWB03	1010	1010 V	1900 V	0.081 UT	2000 T	STWB03	673	19 T	1800 V
Total PAHs	µg/kg-Wet	3	3	100	3.6 JT	9000 T	STWB03	3000	38 JT	8100 JV	3.6 JT	9000 T	STWB03	3000	38 JT	8100 JV
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-Wet	1	1	100	0.161 J	0.161 J	STWB04	0.161	0.161 J	0.161 J	0.161 J	0.161 J	STWB04	0.161	0.161 J	0.161 J

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners.

[d] Total PCBs are total PCB congeners whenever available and total Aroclors if not.

Reason codes for qualifiers:

A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

-- data not available.
BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TEQ - toxic equivalent concentration

Table 5.5-3. Summary Statistics for Indicator Chemicals for Upriver Fish Tissues.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Brown bullhead (whole body)																
Conventionals																
Lipids	percent-Wet	2	2	100	2.1	2.6	20R001	2.4	2.4 V	2.6 V	2.1	2.6	20R001	2.4	2.4 V	2.6 V
Metals																
Arsenic	mg/kg-Wet	2	2	100	0.07 J	0.09 JT	20R001	0.08	0.08 JV	0.089 JV	0.07 J	0.09 JT	20R001	0.08	0.08 JV	0.089 JV
Cadmium	mg/kg-Wet	2	2	100	0.0045 JT	0.006	20R001	0.00525	0.00525 JV	0.00593 JV	0.0045 JT	0.006	20R001	0.00525	0.00525 JV	0.00593 JV
Chromium	mg/kg-Wet	2	2	100	0.485 T	0.7	20R001	0.593	0.593 V	0.689 V	0.485 T	0.7	20R001	0.593	0.593 V	0.689 V
Copper	mg/kg-Wet	2	2	100	0.625 T	0.65	20R001	0.638	0.638 V	0.649 V	0.625 T	0.65	20R001	0.638	0.638 V	0.649 V
Lead	mg/kg-Wet	2	2	100	0.015 T	0.021	20R001	0.018	0.018 V	0.0207 V	0.015 T	0.021	20R001	0.018	0.018 V	0.0207 V
Mercury	mg/kg-Wet	2	2	100	0.054 T	0.094	20R001	0.074	0.074 V	0.092 V	0.054 T	0.094	20R001	0.074	0.074 V	0.092 V
Nickel	mg/kg-Wet	2	2	100	0.19 T	0.27	20R001	0.23	0.23 V	0.27 V	0.19 T	0.27	20R001	0.23	0.23 V	0.27 V
Zinc	mg/kg-Wet	2	2	100	13.9 T	14.4	20R001	14.2	14.2 V	14.4 V	13.9 T	14.4	20R001	14.2	14.2 V	14.4 V
PCB Aroclors																
Aroclors	µg/kg-Wet	2	2	100	27.6 JT	44 JT	20R001	35.8	35.8 JV	43.2 JV	27.6 JT	44 JT	20R001	35.8	35.8 JV	43.2 JV
PCB Congeners																
Total PCB Congeners	pg/g-Wet	2	2	100	24200 JT	56300 JT	20R001	40300	40300 JV	54700 JV	24200 JT	56300 JT	20R001	40300	40300 JV	54700 JV
Total PCBs[c]																
Total PCBs	µg/kg-Wet	2	2	100	24.2 JT	56.3 JT	20R001	40.3	40.3 JV	54.7 JV	24.2 JT	56.3 JT	20R001	40.3	40.3 JV	54.7 JV
PCDD/F Homologs																
Total PCDD/F	pg/g-Wet	2	2	100	5.06 T	7.45 T	20R001	6.26	6.26 V	7.33 V	5.06 T	7.45 T	20R001	6.26	6.26 V	7.33 V
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g-Wet	2	2	100	0.807 JT	2.9 JT	20R001	1.85	1.85 JV	2.8 JV	0.807 JT	2.9 JT	20R001	1.85	1.85 JV	2.8 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	2	2	100	0.715 T	1.23 T	20R001	0.973	0.973 V	1.2 V	0.715 T	1.23 T	20R001	0.973	0.973 V	1.2 V
Pesticides																
Aldrin	µg/kg-Wet	2	0	0	--	--	--	--	--	--	1 U	1 U	20R001	0.5	0.5 UV	0.5 UV
Dieldrin	µg/kg-Wet	2	1	50	1.2 NJ	1.2 NJ	20R001	1.2	1.2 NJ	1.2 NJ	1 UJ	1.2 NJ	20R001	0.85	0.85 JV	1.2 JV
gamma-Hexachlorocyclohexane	µg/kg-Wet	2	0	0	--	--	--	--	--	--	1 U	1 U	20R001	0.5	0.5 UV	0.5 UV
Total Chlordanes	µg/kg-Wet	2	2	100	2.1 NT	3.7 NJT	20R001	2.9	2.9 JV	3.6 JV	2.1 NT	3.7 NJT	20R001	2.9	2.9 JV	3.6 JV
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	2	2	100	4.2 NJT	4.5 NJT	20R001	4.4	4.4 JV	4.5 JV	4.2 NJT	4.5 NJT	20R001	4.4	4.4 JV	4.5 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	2	2	100	20.4 NJT	52 NJT	20R001	36.2	36.2 JV	50.4 JV	20.4 NJT	52 NJT	20R001	36.2	36.2 JV	50.4 JV
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	2	2	100	12 JT	37 JT	20R001	25	25 JV	36 JV	12 JT	37 JT	20R001	25	25 JV	36 JV
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	2	2	100	4.2 NJT	10.5 NJT	20R001	7.35	7.35 JV	10.2 JV	4.2 NJT	10.5 NJT	20R001	7.35	7.35 JV	10.2 JV
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	2	0	0	--	--	--	--	--	--	33 UT	33 UT	20R001	17	17 UV	17 UV
High Molecular Weight PAH	µg/kg-Wet	2	0	0	--	--	--	--	--	--	33 UT	33 UT	20R001	17	17 UV	17 UV
Low Molecular Weight PAH	µg/kg-Wet	2	0	0	--	--	--	--	--	--	33 UT	33 UT	20R001	17	17 UV	17 UV
Naphthalene	µg/kg-Wet	2	0	0	--	--	--	--	--	--	33 UT	33 UT	20R001	17	17 UV	17 UV
Phenanthrene	µg/kg-Wet	2	0	0	--	--	--	--	--	--	33 UT	33 UT	20R001	17	17 UV	17 UV
Total BaPEq	µg/kg-Wet	2	0	0	--	--	--	--	--	--	33 UT	33 UT	20R001	16.5	16.5 UV	16.5 UV
Total cPAHs	µg/kg-Wet	2	0	0	--	--	--	--	--	--	33 UT	33 UT	20R001	17	17 UV	17 UV
Total PAHs	µg/kg-Wet	2	0	0	--	--	--	--	--	--	33 UT	33 UT	20R001	17	17 UV	17 UV
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg-Wet	2	1	50	3000 JT	3000 JT	20R001	3000	3000 JT	3000 JT	99 UJT	3000 JT	20R001	1500	1500 JV	2900 JV
Butylbenzyl phthalate	µg/kg-Wet	2	0	0	--	--	--	--	--	--	330 UJ	330 UJ	20R001	170	170 UJV	170 UJV
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg-Wet	2	0	0	--	--	--	--	--	--	330 U	330 U	20R001	170	170 UV	170 UV
Hexachlorobenzene	µg/kg-Wet	2	0	0	--	--	--	--	--	--	1 UT	33 UT	20R001	8.5	8.5 UV	16 UV

Table 5.5-3. Summary Statistics for Indicator Chemicals for Upriver Fish Tissues.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Phenols																
Pentachlorophenol	µg/kg-Wet	2	0	0	--	--	--	--	--	--	170 UT	170 UT	20R001	85	85 UV	85 UV
Chinook (whole body)																
Conventionals																
Lipids	percent-Wet	3	3	100	1.8	1.9	T04	1.8	1.8	1.9 V	1.8	1.9	T04	1.8	1.8	1.9 V
Metals																
Arsenic	mg/kg-Wet	3	3	100	0.0468	0.056	T04	0.0502	0.0478 T	0.0551 V	0.0468	0.056	T04	0.0502	0.0478 T	0.0551 V
Cadmium	mg/kg-Wet	3	3	100	0.00776 T	0.0164	T04	0.0118	0.0111	0.0159 V	0.00776 T	0.0164	T04	0.0118	0.0111	0.0159 V
Chromium	mg/kg-Wet	3	0	0	--	--	--	--	--	--	0.0579 U	0.0597 UT	T04	0.0294	0.0293 U	0.0298 UV
Copper	mg/kg-Wet	3	3	100	0.879 T	0.957	T04	0.919	0.921	0.954 V	0.879 T	0.957	T04	0.919	0.921	0.954 V
Lead	mg/kg-Wet	3	0	0	--	--	--	--	--	--	0.00975 U	0.0251 U	T04	0.00747	0.00498 UT	0.0118 UV
Mercury	mg/kg-Wet	3	3	100	0.00935 J	0.0129	T04	0.0117	0.0127	0.0129 V	0.00935 J	0.0129	T04	0.0117	0.0127	0.0129 V
Nickel	mg/kg-Wet	3	3	100	0.246	0.409 JT	T04	0.319	0.301	0.398 JV	0.246	0.409 JT	T04	0.319	0.301	0.398 JV
Zinc	mg/kg-Wet	3	3	100	26.9 T	29.1	T04	28.2	28.8	29 V	26.9 T	29.1	T04	28.2	28.8	29 V
Butyltins																
Tributyltin ion	µg/kg-Wet	3	3	100	0.37 J	0.45 J	T04	0.41	0.42 J	0.45 JV	0.37 J	0.45 J	T04	0.41	0.42 J	0.45 JV
PCB Congeners																
Total PCB Congeners	pg/g-Wet	3	3	100	12800 JT	21600 JT	T04	16700	15800 JT	21000 JV	12800 JT	21600 JT	T04	16700	15800 JT	21000 JV
Total PCBs[c]																
Total PCBs	µg/kg-Wet	3	3	100	12.8 JT	21.6 JT	T04	16.7	15.8 JT	21 JV	12.8 JT	21.6 JT	T04	16.7	15.8 JT	21 JV
PCDD/F Homologs																
Total PCDD/F	pg/g-Wet	3	3	100	5.07 JT	6.18 JT	T04	5.52	5.31 JT	6.09 JV	5.07 JT	6.18 JT	T04	5.52	5.31 JT	6.09 JV
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g-Wet	3	3	100	0.388 JT	1.12 JT	T04	0.671	0.505 JT	1.06 JV	0.388 JT	1.12 JT	T04	0.671	0.505 JT	1.06 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	3	3	100	0.353 T	0.508 T	T04	0.445	0.473 T	0.505 V	0.353 T	0.508 T	T04	0.445	0.473 T	0.505 V
Pesticides																
Aldrin	µg/kg-Wet	3	0	0	--	--	--	--	--	--	0.16 U	0.17 U	T04	0.082	0.08 U	0.085 UV
Dieldrin	µg/kg-Wet	3	3	100	0.65 J	0.84 J	T04	0.74	0.72 J	0.83 JV	0.65 J	0.84 J	T04	0.74	0.72 J	0.83 JV
gamma-Hexachlorocyclohexane	µg/kg-Wet	3	0	0	--	--	--	--	--	--	0.18 U	0.49 U	T04	0.14	0.09 U	0.23 UV
Total Chlordanes	µg/kg-Wet	3	3	100	2.07 NJT	3.02 NJT	T04	2.42	2.18 NJT	2.94 JV	2.07 NJT	3.02 NJT	T04	2.42	2.18 NJT	2.94 JV
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	3	1	33	1 JT	1 JT	T04	1	1 JT	1 JT	0.69 UT	1 JT	T04	0.6	0.44 UT	0.94 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	3	3	100	8.61 NJT	12.2 NJT	T04	10	9.2 NJT	11.9 JV	8.61 NJT	12.2 NJT	T04	10	9.2 NJT	11.9 JV
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	3	3	100	6.3 T	7.9 T	T04	6.9	6.6 T	7.8 V	6.3 T	7.9 T	T04	6.9	6.6 T	7.8 V
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	3	3	100	2.31 NJT	3.3 NJT	T04	2.74	2.6 NJT	3.23 JV	2.31 NJT	3.3 NJT	T04	2.74	2.6 NJT	3.23 JV
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	3	0	0	--	--	--	--	--	--	0.13 U	0.13 U	T04	0.065	0.065 U	0.065 UV
High Molecular Weight PAH	µg/kg-Wet	3	3	100	0.21 JT	1.37 JT	T04	0.633	0.32 JT	1.27 JV	0.21 JT	1.37 JT	T04	0.633	0.32 JT	1.27 JV
Low Molecular Weight PAH	µg/kg-Wet	3	3	100	5.04 JT	9.77 JT	T04	6.71	5.32 JT	9.33 JV	5.04 JT	9.77 JT	T04	6.71	5.32 JT	9.33 JV
Naphthalene	µg/kg-Wet	3	1	33	3.8	3.8	T04	3.8	3.8	3.8	2.8 U	3.8	T04	2.2	1.5 U	3.6 V
Phenanthrene	µg/kg-Wet	3	3	100	0.62	0.84	T04	0.72	0.69	0.83 V	0.62	0.84	T04	0.72	0.69	0.83 V
Total BaPEq	µg/kg-Wet	3	3	100	0.21 JT	0.32 JT	T04	0.267	0.27 JT	0.315 JV	0.21 JT	0.32 JT	T04	0.267	0.27 JT	0.315 JV
Total cPAHs	µg/kg-Wet	3	3	100	0.21 JT	0.32 JT	T04	0.27	0.27 JT	0.32 JV	0.21 JT	0.32 JT	T04	0.27	0.27 JT	0.32 JV
Total PAHs	µg/kg-Wet	3	3	100	5.25 JT	10.1 JT	T04	7.35	6.69 JT	9.76 JV	5.25 JT	10.1 JT	T04	7.35	6.69 JT	9.76 JV
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg-Wet	3	2	67	140 J	140 J	T04	140	140 JV	140 JV	120 U	140 J	T04	110	140 J	140 JV
Butylbenzyl phthalate	µg/kg-Wet	3	3	100	200	240	T04	220	210	240 V	200	240	T04	220	210	240 V

Table 5.5-3. Summary Statistics for Indicator Chemicals for Upriver Fish Tissues.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg-Wet	3	3	100	31 J	57 J	T04	42	39 J	55 JV	31 J	57 J	T04	42	39 J	55 JV
Hexachlorobenzene	µg/kg-Wet	3	3	100	0.57 J	1.2 J	T04	0.96	1.1 J	1.2 JV	0.57 J	1.2 J	T04	0.96	1.1 J	1.2 JV
Phenols																
Pentachlorophenol	µg/kg-Wet	3	0	0	--	--	--	--	--	--	64 U	70 U	T04	33	33 U	35 UV
Lamprey Ammocoetes and Macropthalmia																
Conventionals																
Lipids	percent-Wet	4	4	100	3.14	10	LT023c	5.2	3.83 V	9.09 V	3.14	10	LT023c	5.2	3.83 V	9.09 V
Metals																
Arsenic	mg/kg-Wet	4	4	100	0.08 J	0.19	LT023c	0.14	0.15 V	0.19 V	0.08 J	0.19	LT023c	0.14	0.15 V	0.19 V
Cadmium	mg/kg-Wet	4	3	75	0.003 J	0.014	LT023b	0.007	0.004 J	0.013 JV	0.002 U	0.014	LT023b	0.0055	0.0035 JV	0.0125 JV
Chromium	mg/kg-Wet	4	3	75	0.26	0.3	LT023c	0.28	0.29	0.3 V	0.1 U	0.3	LT023c	0.23	0.28 V	0.3 V
Copper	mg/kg-Wet	4	4	100	3.92	4.8	LT023c	4.43	4.5 V	4.78 V	3.92	4.8	LT023c	4.43	4.5 V	4.78 V
Lead	mg/kg-Wet	4	4	100	0.0303	0.0954	LT023c	0.0733	0.0837 V	0.0938 V	0.0303	0.0954	LT023c	0.0733	0.0837 V	0.0938 V
Mercury	mg/kg-Wet	4	4	100	0.259	0.902	LT023c	0.55	0.519 JV	0.87 JV	0.259	0.902	LT023c	0.55	0.519 JV	0.87 JV
Nickel	mg/kg-Wet	4	4	100	0.096	0.268	LT023c	0.225	0.268 V	0.268 V	0.096	0.268	LT023c	0.225	0.268 V	0.268 V
Zinc	mg/kg-Wet	4	4	100	25.8	29.1	LT023c	27.5	27.6 V	29.1 V	25.8	29.1	LT023c	27.5	27.6 V	29.1 V
PCB Congeners																
Total PCB Congeners	pg/g-Wet	4	4	100	31300 JT	52800 JT	LT023c	37600	33200 JV	50000 JV	31300 JT	52800 JT	LT023c	37600	33200 JV	50000 JV
Total PCBs[c]																
Total PCBs	µg/kg-Wet	4	4	100	31.3 JT	52.8 JT	LT023c	37.6	33.2 JV	50 JV	31.3 JT	52.8 JT	LT023c	37.6	33.2 JV	50 JV
PCDD/F Homologs																
Total PCDD/F	pg/g-Wet	4	4	100	37.7 T	63 T	LT023c	53	55.7 JV	62.2 JV	37.7 T	63 T	LT023c	53	55.7 JV	62.2 JV
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g-Wet	4	4	100	1.15 JT	3.1 JT	LT023c	2	1.87 JV	2.95 JV	1.15 JT	3.1 JT	LT023c	2	1.87 JV	2.95 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	4	4	100	0.655 T	0.963 T	LT023c	0.772	0.734 V	0.936 V	0.655 T	0.963 T	LT023c	0.772	0.734 V	0.936 V
Pesticides																
Aldrin	µg/kg-Wet	4	4	100	0.65	2.72	LT023c	1.86	2.03 V	2.62 V	0.65	2.72	LT023c	1.86	2.03 V	2.62 V
Dieldrin	µg/kg-Wet	4	4	100	0.698	5.36	LT023c	2.01	0.986 V	4.71 V	0.698	5.36	LT023c	2.01	0.986 V	4.71 V
gamma-Hexachlorocyclohexane	µg/kg-Wet	4	3	75	0.0175 J	0.181 J	LT023b	0.0851	0.0569 J	0.169 JV	0.0106 U	0.181 J	LT023b	0.0652	0.0372 JV	0.162 JV
Total Chlordanes	µg/kg-Wet	4	4	100	8.71 JT	25.2 T	LT023c	15.4	13.8 JV	23.5 JV	8.71 JT	25.2 T	LT023c	15.4	13.8 JV	23.5 JV
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	4	4	100	10.5 T	29.1 T	LT023c	18.6	17.3 V	27.4 V	10.5 T	29.1 T	LT023c	18.6	17.3 V	27.4 V
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	4	4	100	36.8 T	77.1 T	LT023c	54.1	51.2 V	73.5 V	36.8 T	77.1 T	LT023c	54.1	51.2 V	73.5 V
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	4	4	100	23.4 T	40.6 T	LT023c	31.4	30.8 V	39.3 V	23.4 T	40.6 T	LT023c	31.4	30.8 V	39.3 V
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	4	4	100	2.9 T	7.34 T	LT023c	4.12	3.12 V	6.72 V	2.9 T	7.34 T	LT023c	4.12	3.12 V	6.72 V
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	4	0	0	--	--	--	--	--	--	0.22 U	0.22 U	LT023b; LT023c	0.11	0.11 UV	0.11 UV
High Molecular Weight PAH	µg/kg-Wet	4	4	100	5.9 JT	21 JT	LT023c	13	12 JV	20 JV	5.9 JT	21 JT	LT023c	13	12 JV	20 JV
Low Molecular Weight PAH	µg/kg-Wet	4	4	100	8.8 JT	28 JT	LT023c	18	18 JV	27 JV	8.8 JT	28 JT	LT023c	18	18 JV	27 JV
Naphthalene	µg/kg-Wet	4	4	100	1.7 J	3.6	LT023c	2.9	3.1 V	3.6 V	1.7 J	3.6	LT023c	2.9	3.1 V	3.6 V
Phenanthrene	µg/kg-Wet	4	4	100	2.4	6.6	LT023c	5	5.5 V	6.6 V	2.4	6.6	LT023c	5	5.5 V	6.6 V
Total BaPEq	µg/kg-Wet	4	3	75	0.00025 JT	0.207 JT	LT023c	0.0693	0.00075 JT	0.186 JV	0.00025 JT	0.28 UT	LT023c	0.087	0.0704 JV	0.197 JV
Total cPAHs	µg/kg-Wet	4	3	75	0.25 JT	2.5 JT	LT023c	1.2	0.75 JT	2.3 JV	0.25 JT	2.5 JT	LT023c	0.91	0.5 JV	2.2 JV
Total PAHs	µg/kg-Wet	4	4	100	18 JT	41 JT	LT023c	31	33 JV	40 JV	18 JT	41 JT	LT023c	31	33 JV	40 JV
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg-Wet	4	4	100	120 J	160 J	LT023c	140	140 JV	160 JV	120 J	160 J	LT023c	140	140 JV	160 JV
Butylbenzyl phthalate	µg/kg-Wet	4	0	0	--	--	--	--	--	--	7.3 U	7.3 U	LT023b; LT023c	3.7	3.7 UV	3.7 UV

Table 5.5-3. Summary Statistics for Indicator Chemicals for Upriver Fish Tissues.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg-Wet	4	0	0	--	--	--	--	--	--	22 U	22 U	LT023b; LT023c	11	11 UV	11 UV
Hexachlorobenzene	µg/kg-Wet	4	4	100	1.92	6.02	LT023c	3.34	2.71 V	5.62 V	1.92	6.02	LT023c	3.34	2.71 V	5.62 V
Phenols																
Pentachlorophenol	µg/kg-Wet	4	1	25	38 J	38 J	LT023c	38	38 J	38 J	30 U	38 J	LT023c	21	15 UV	35 JV
Smallmouth bass (whole body)																
Conventionals																
Lipids	percent-Wet	3	3	100	5.7	6.9	20R001	6.2	6.1	6.8 V	5.7	6.9	20R001	6.2	6.1	6.8 V
Metals																
Arsenic	mg/kg-Wet	3	3	100	0.28	0.36	20R001	0.32	0.33	0.36 V	0.28	0.36	20R001	0.32	0.33	0.36 V
Cadmium	mg/kg-Wet	3	1	33.3	0.004 J	0.004 J	20R001	0.004	0.004 J	0.004 J	0.003 U	0.004 J	20R001	0.00233	0.0015 U	0.00375 JV
Chromium	mg/kg-Wet	3	3	100	0.16	2.79	20R001	1.05	0.19	2.53 V	0.16	2.79	20R001	1.05	0.19	2.53 V
Copper	mg/kg-Wet	3	3	100	0.37	0.54	20R001	0.44	0.4	0.53 V	0.37	0.54	20R001	0.44	0.4	0.53 V
Lead	mg/kg-Wet	3	3	100	0.003 J	0.019	20R001	0.009	0.005 J	0.0176 JV	0.003 J	0.019	20R001	0.009	0.005 J	0.0176 JV
Mercury	mg/kg-Wet	3	3	100	0.167	0.549	20R001	0.41	0.513	0.545 V	0.167	0.549	20R001	0.41	0.513	0.545 V
Nickel	mg/kg-Wet	3	3	100	0.13	1.57	20R001	0.61	0.13	1.43 V	0.13	1.57	20R001	0.61	0.13	1.43 V
Zinc	mg/kg-Wet	3	3	100	12.8	14.4	20R001	13.8	14.1	14.4 V	12.8	14.4	20R001	13.8	14.1	14.4 V
PCB Aroclors																
Aroclors	µg/kg-Wet	3	3	100	120 T	290 JT	20R001	220	260 JT	290 JV	120 T	290 JT	20R001	220	260 JT	290 JV
PCB Congeners																
Total PCB Congeners	pg/g-Wet	3	3	100	123000 JT	317000 JT	20R001	238000	275000 JT	313000 JV	123000 JT	317000 JT	20R001	238000	275000 JT	313000 JV
Total PCBs[c]																
Total PCBs	µg/kg-Wet	3	3	100	123 JT	317 JT	20R001	238	275 JT	313 JV	123 JT	317 JT	20R001	238	275 JT	313 JV
PCDD/F Homologs																
Total PCDD/F	pg/g-Wet	3	3	100	5.37 T	10.5 T	20R001	8.55	9.77 T	10.4 V	5.37 T	10.5 T	20R001	8.55	9.77 T	10.4 V
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g-Wet	3	3	100	1.56 JT	2.45 JT	20R001	1.9	1.68 T	2.37 JV	1.56 JT	2.45 JT	20R001	1.9	1.68 T	2.37 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	3	3	100	2.46 T	5.44 T	20R001	4.15	4.55 T	5.35 V	2.46 T	5.44 T	20R001	4.15	4.55 T	5.35 V
Pesticides																
Aldrin	µg/kg-Wet	3	0	0	--	--	--	--	--	--	1 U	3 U	20R001	0.87	0.6 U	1.4 UV
Dieldrin	µg/kg-Wet	3	3	100	2.5 NJ	4.5 NJ	20R001	3.5	3.6 NJ	4.4 JV	2.5 NJ	4.5 NJ	20R001	3.5	3.6 NJ	4.4 JV
gamma-Hexachlorocyclohexane	µg/kg-Wet	3	2	67	3.3 NJ	4.3 NJ	20R001	3.8	3.8 JV	4.3 JV	2.3 U	4.3 NJ	20R001	2.9	3.3 NJ	4.2 JV
Total Chlordanes	µg/kg-Wet	3	3	100	5.9 NJT	15 NJT	20R001	10.6	10.9 NJT	14.6 JV	5.9 NJT	15 NJT	20R001	10.6	10.9 NJT	14.6 JV
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	3	3	100	4.7 NJT	17.4 NJT	20R001	12.2	14.5 NJT	17.1 JV	4.7 NJT	17.4 NJT	20R001	12.2	14.5 NJT	17.1 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	3	3	100	56.9 NJT	120 NJT	20R001	94	105 NJT	119 JV	56.9 NJT	120 NJT	20R001	94	105 NJT	119 JV
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	3	3	100	32 JT	60 JT	20R001	49	55 JT	60 JV	32 JT	60 JT	20R001	49	55 JT	60 JV
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	3	3	100	20.2 NJT	43 NJT	20R001	32.7	35 NJT	42.2 JV	20.2 NJT	43 NJT	20R001	32.7	35 NJT	42.2 JV
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	3	0	0	--	--	--	--	--	--	33 UT	33 UT	20R001	17	17 UT	17 UV
High Molecular Weight PAH	µg/kg-Wet	3	0	0	--	--	--	--	--	--	33 UT	33 UT	20R001	17	17 UT	17 UV
Low Molecular Weight PAH	µg/kg-Wet	3	0	0	--	--	--	--	--	--	33 UT	33 UT	20R001	17	17 UT	17 UV
Naphthalene	µg/kg-Wet	3	0	0	--	--	--	--	--	--	33 UT	33 UT	20R001	17	17 UT	17 UV
Phenanthrene	µg/kg-Wet	3	0	0	--	--	--	--	--	--	33 UT	33 UT	20R001	17	17 UT	17 UV
Total BaPEq	µg/kg-Wet	3	0	0	--	--	--	--	--	--	33 UT	33 UT	20R001	16.5	16.5 UT	16.5 UV
Total cPAHs	µg/kg-Wet	3	0	0	--	--	--	--	--	--	33 UT	33 UT	20R001	17	17 UT	17 UV
Total PAHs	µg/kg-Wet	3	0	0	--	--	--	--	--	--	33 UT	33 UT	20R001	17	17 UT	17 UV

Table 5.5-3. Summary Statistics for Indicator Chemicals for Upriver Fish Tissues.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg-Wet	3	1	33	4800 T	4800 T	20R001	4800	4800 T	4800 T	330 UJT	4800 T	20R001	1700	280 UJT	4300 JV
Butylbenzyl phthalate	µg/kg-Wet	3	1	33	790 J	790 J	20R001	790	790 J	790 J	330 UJ	790 J	20R001	370	170 UJ	730 JV
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg-Wet	3	0	0	--	--	--	--	--	--	330 U	330 U	20R001	170	170 U	170 UV
Hexachlorobenzene	µg/kg-Wet	3	0	0	--	--	--	--	--	--	1.7 UT	2.3 UT	20R001	1	1 UT	1.1 UV
Phenols																
Pentachlorophenol	µg/kg-Wet	3	0	0	--	--	--	--	--	--	170 UT	170 UT	20R001	85	85 UT	85 UV

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners.

Reason codes for qualifiers:

A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.
-- data not available.
BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PBDE - polybrominated diphenyl ether
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TEQ - toxic equivalent concentration

Table 5.5-4. Summary Statistics for Indicator Chemicals in Upriver Invertebrate Tissues.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Chinook (stomach contents)																
PCB Congeners																
Total PCB Congeners	pg/g-Wet	1	1	100	10600 JT	10600 JT	T04	10600	10600 JT	10600 JT	10600 JT	10600 JT	T04	10600	10600 JT	10600 JT
Total PCBs[c]																
Total PCBs	µg/kg-Wet	1	1	100	10.6 JT	10.6 JT	T04	10.6	10.6 JT	10.6 JT	10.6 JT	10.6 JT	T04	10.6	10.6 JT	10.6 JT
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	1	1	100	0.316 T	0.316 T	T04	0.316	0.316 T	0.316 T	0.316 T	0.316 T	T04	0.316	0.316 T	0.316 T
Pesticides																
Aldrin	µg/kg-Wet	1	0	0	--	--	--	--	--	--	0.000169 U	0.000169 U	T04	8.45E-05	8.45E-05 U	8.45E-05 U
Dieldrin	µg/kg-Wet	1	1	100	0.905	0.905	T04	0.905	0.905	0.905	0.905	0.905	T04	0.905	0.905	0.905
gamma-Hexachlorocyclohexane	µg/kg-Wet	1	0	0	--	--	--	--	--	--	0.0221 U	0.0221 U	T04	0.0111	0.0111 U	0.0111 U
Total Chlordanes	µg/kg-Wet	1	1	100	2.26 JT	2.26 JT	T04	2.26	2.26 JT	2.26 JT	2.26 JT	2.26 JT	T04	2.26	2.26 JT	2.26 JT
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	1	1	100	0.56 JT	0.56 JT	T04	0.56	0.56 JT	0.56 JT	0.56 JT	0.56 JT	T04	0.56	0.56 JT	0.56 JT
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	1	1	100	6.61 JT	6.61 JT	T04	6.61	6.61 JT	6.61 JT	6.61 JT	6.61 JT	T04	6.61	6.61 JT	6.61 JT
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	1	1	100	5.36 JT	5.36 JT	T04	5.36	5.36 JT	5.36 JT	5.36 JT	5.36 JT	T04	5.36	5.36 JT	5.36 JT
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	1	1	100	0.686 T	0.686 T	T04	0.686	0.686 T	0.686 T	0.686 T	0.686 T	T04	0.686	0.686 T	0.686 T
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	1	1	100	1.07 J	1.07 J	T04	1.07	1.07 J	1.07 J	1.07 J	1.07 J	T04	1.07	1.07 J	1.07 J
High Molecular Weight PAH	µg/kg-Wet	1	1	100	59.4 JT	59.4 JT	T04	59.4	59.4 JT	59.4 JT	59.4 JT	59.4 JT	T04	59.4	59.4 JT	59.4 JT
Low Molecular Weight PAH	µg/kg-Wet	1	1	100	28 JT	28 JT	T04	28	28 JT	28 JT	28 JT	28 JT	T04	28	28 JT	28 JT
Naphthalene	µg/kg-Wet	1	0	0	--	--	--	--	--	--	11 U	11 U	T04	5.5	5.5 U	5.5 U
Phenanthrene	µg/kg-Wet	1	1	100	23.5	23.5	T04	23.5	23.5	23.5	23.5	23.5	T04	23.5	23.5	23.5
Total BaPEq	µg/kg-Wet	1	1	100	1.61 JT	1.61 JT	T04	1.61	1.61 JT	1.61 JT	1.61 JT	1.61 JT	T04	1.61	1.61 JT	1.61 JT
Total cPAHs	µg/kg-Wet	1	1	100	16 JT	16 JT	T04	16	16 JT	16 JT	16 JT	16 JT	T04	16	16 JT	16 JT
Total PAHs	µg/kg-Wet	1	1	100	87.4 JT	87.4 JT	T04	87.4	87.4 JT	87.4 JT	87.4 JT	87.4 JT	T04	87.4	87.4 JT	87.4 JT
Semivolatile Organic Compounds																
Hexachlorobenzene	µg/kg-Wet	1	1	100	0.767	0.767	T04	0.767	0.767	0.767	0.767	0.767	T04	0.767	0.767	0.767
Lab-exposed clam (Corbicula fluminea – body without shell)																
Conventionals																
Lipids	percent-Wet	1	1	100	1.1	1.1	WR-PG-Ref03	1.1	1.1	1.1	1.1	1.1	WR-PG-Ref03	1.1	1.1	1.1
Metals																
Arsenic	mg/kg-Wet	1	1	100	0.392	0.392	WR-PG-Ref03	0.392	0.392	0.392	0.392	0.392	WR-PG-Ref03	0.392	0.392	0.392
Cadmium	mg/kg-Wet	1	1	100	0.04	0.04	WR-PG-Ref03	0.04	0.04	0.04	0.04	0.04	WR-PG-Ref03	0.04	0.04	0.04
Chromium	mg/kg-Wet	1	1	100	0.0936	0.0936	WR-PG-Ref03	0.0936	0.0936	0.0936	0.0936	0.0936	WR-PG-Ref03	0.0936	0.0936	0.0936
Copper	mg/kg-Wet	1	1	100	3.19	3.19	WR-PG-Ref03	3.19	3.19	3.19	3.19	3.19	WR-PG-Ref03	3.19	3.19	3.19
Lead	mg/kg-Wet	1	1	100	0.0359	0.0359	WR-PG-Ref03	0.0359	0.0359	0.0359	0.0359	0.0359	WR-PG-Ref03	0.0359	0.0359	0.0359
Mercury	mg/kg-Wet	1	1	100	0.0113	0.0113	WR-PG-Ref03	0.0113	0.0113	0.0113	0.0113	0.0113	WR-PG-Ref03	0.0113	0.0113	0.0113
Nickel	mg/kg-Wet	1	1	100	0.0694	0.0694	WR-PG-Ref03	0.0694	0.0694	0.0694	0.0694	0.0694	WR-PG-Ref03	0.0694	0.0694	0.0694
Zinc	mg/kg-Wet	1	1	100	10.6	10.6	WR-PG-Ref03	10.6	10.6	10.6	10.6	10.6	WR-PG-Ref03	10.6	10.6	10.6
Butyltins																
Tributyltin ion	µg/kg-Wet	1	1	100	0.091 NJ	0.091 NJ	WR-PG-Ref03	0.091	0.091 NJ	0.091 NJ	0.091 NJ	0.091 NJ	WR-PG-Ref03	0.091	0.091 NJ	0.091 NJ
PCB Aroclors																
Aroclors	µg/kg-Wet	1	0	0	--	--	--	--	--	--	20 UT	20 UT	WR-PG-Ref03	10	10 UT	10 UT
Total PCBs[d]																
Total PCBs	µg/kg-Wet	1	0	0	--	--	--	--	--	--	20 UT	20 UT	WR-PG-Ref03	10	10 UT	10 UT
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	1	1	100	0.048 T	0.048 T	WR-PG-Ref03	0.048	0.048 T	0.048 T	0.048 T	0.048 T	WR-PG-Ref03	0.048	0.048 T	0.048 T

Table 5.5-4. Summary Statistics for Indicator Chemicals in Upriver Invertebrate Tissues.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Pesticides																
Aldrin	µg/kg-Wet	1	0	0	--	--	--	--	--	--	0.15 U	0.15 U	WR-PG-Ref03	0.075	0.075 U	0.075 U
Dieldrin	µg/kg-Wet	1	1	100	0.55 J	0.55 J	WR-PG-Ref03	0.55	0.55 J	0.55 J	0.55 J	0.55 J	WR-PG-Ref03	0.55	0.55 J	0.55 J
gamma-Hexachlorocyclohexane	µg/kg-Wet	1	0	0	--	--	--	--	--	--	0.17 U	0.17 U	WR-PG-Ref03	0.085	0.085 U	0.085 U
Total Chlordanes	µg/kg-Wet	1	1	100	4.6 JT	4.6 JT	WR-PG-Ref03	4.6	4.6 JT	4.6 JT	4.6 JT	4.6 JT	WR-PG-Ref03	4.6	4.6 JT	4.6 JT
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	1	1	100	0.69 JT	0.69 JT	WR-PG-Ref03	0.69	0.69 JT	0.69 JT	0.69 JT	0.69 JT	WR-PG-Ref03	0.69	0.69 JT	0.69 JT
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	1	1	100	5.89 JT	5.89 JT	WR-PG-Ref03	5.89	5.89 JT	5.89 JT	5.89 JT	5.89 JT	WR-PG-Ref03	5.89	5.89 JT	5.89 JT
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	1	1	100	1.2 JT	1.2 JT	WR-PG-Ref03	1.2	1.2 JT	1.2 JT	1.2 JT	1.2 JT	WR-PG-Ref03	1.2	1.2 JT	1.2 JT
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	1	1	100	4 JT	4 JT	WR-PG-Ref03	4	4 JT	4 JT	4 JT	4 JT	WR-PG-Ref03	4	4 JT	4 JT
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	1	1	100	0.26 J	0.26 J	WR-PG-Ref03	0.26	0.26 J	0.26 J	0.26 J	0.26 J	WR-PG-Ref03	0.26	0.26 J	0.26 J
High Molecular Weight PAH	µg/kg-Wet	1	1	100	18.3 JT	18.3 JT	WR-PG-Ref03	18.3	18.3 JT	18.3 JT	18.3 JT	18.3 JT	WR-PG-Ref03	18.3	18.3 JT	18.3 JT
Low Molecular Weight PAH	µg/kg-Wet	1	1	100	11.4 JT	11.4 JT	WR-PG-Ref03	11.4	11.4 JT	11.4 JT	11.4 JT	11.4 JT	WR-PG-Ref03	11.4	11.4 JT	11.4 JT
Naphthalene	µg/kg-Wet	1	0	0	--	--	--	--	--	--	0.96 U	0.96 U	WR-PG-Ref03	0.48	0.48 U	0.48 U
Phenanthrene	µg/kg-Wet	1	1	100	8	8	WR-PG-Ref03	8	8	8	8	8	WR-PG-Ref03	8	8	8
Total BaPEq	µg/kg-Wet	1	1	100	0.499 JT	0.499 JT	WR-PG-Ref03	0.499	0.499 JT	0.499 JT	0.499 JT	0.499 JT	WR-PG-Ref03	0.499	0.499 JT	0.499 JT
Total cPAHs	µg/kg-Wet	1	1	100	4.2 JT	4.2 JT	WR-PG-Ref03	4.2	4.2 JT	4.2 JT	4.2 JT	4.2 JT	WR-PG-Ref03	4.2	4.2 JT	4.2 JT
Total PAHs	µg/kg-Wet	1	1	100	29.7 JT	29.7 JT	WR-PG-Ref03	29.7	29.7 JT	29.7 JT	29.7 JT	29.7 JT	WR-PG-Ref03	29.7	29.7 JT	29.7 JT
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg-Wet	1	1	100	85 J	85 J	WR-PG-Ref03	85	85 J	85 J	85 J	85 J	WR-PG-Ref03	85	85 J	85 J
Butylbenzyl phthalate	µg/kg-Wet	1	0	0	--	--	--	--	--	--	14 U	14 U	WR-PG-Ref03	7	7 U	7 U
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg-Wet	1	1	100	13 J	13 J	WR-PG-Ref03	13	13 J	13 J	13 J	13 J	WR-PG-Ref03	13	13 J	13 J
Hexachlorobenzene	µg/kg-Wet	1	0	0	--	--	--	--	--	--	1 U	1 U	WR-PG-Ref03	0.5	0.5 U	0.5 U
Phenols																
Pentachlorophenol	µg/kg-Wet	1	1	100	46 J	46 J	WR-PG-Ref03	46	46 J	46 J	46 J	46 J	WR-PG-Ref03	46	46 J	46 J
Lab-exposed worm (Lumbriculus variegatus – whole body)																
Conventionals																
Lipids	percent-Wet	1	1	100	1.6	1.6	WR-PG-Ref03	1.6	1.6	1.6	1.6	1.6	WR-PG-Ref03	1.6	1.6	1.6
Metals																
Arsenic	mg/kg-Wet	1	1	100	1.52	1.52	WR-PG-Ref03	1.52	1.52	1.52	1.52	1.52	WR-PG-Ref03	1.52	1.52	1.52
Cadmium	mg/kg-Wet	1	1	100	0.0341	0.0341	WR-PG-Ref03	0.0341	0.0341	0.0341	0.0341	0.0341	WR-PG-Ref03	0.0341	0.0341	0.0341
Chromium	mg/kg-Wet	1	1	100	0.197	0.197	WR-PG-Ref03	0.197	0.197	0.197	0.197	0.197	WR-PG-Ref03	0.197	0.197	0.197
Copper	mg/kg-Wet	1	1	100	1.86	1.86	WR-PG-Ref03	1.86	1.86	1.86	1.86	1.86	WR-PG-Ref03	1.86	1.86	1.86
Lead	mg/kg-Wet	1	1	100	0.107	0.107	WR-PG-Ref03	0.107	0.107	0.107	0.107	0.107	WR-PG-Ref03	0.107	0.107	0.107
Mercury	mg/kg-Wet	1	1	100	0.00891	0.00891	WR-PG-Ref03	0.00891	0.00891	0.00891	0.00891	0.00891	WR-PG-Ref03	0.00891	0.00891	0.00891
Nickel	mg/kg-Wet	1	1	100	0.258	0.258	WR-PG-Ref03	0.258	0.258	0.258	0.258	0.258	WR-PG-Ref03	0.258	0.258	0.258
Zinc	mg/kg-Wet	1	1	100	22	22	WR-PG-Ref03	22	22	22	22	22	WR-PG-Ref03	22	22	22
Butyltins																
Tributyltin ion	µg/kg-Wet	1	0	0	--	--	--	--	--	--	0.072 U	0.072 U	WR-PG-Ref03	0.036	0.036 U	0.036 U
PCB Aroclors																
Aroclors	µg/kg-Wet	1	0	0	--	--	--	--	--	--	5.5 UT	5.5 UT	WR-PG-Ref03	2.8	2.8 UT	2.8 UT
Total PCBs[d]																
Total PCBs	µg/kg-Wet	1	0	0	--	--	--	--	--	--	5.5 UT	5.5 UT	WR-PG-Ref03	2.8	2.8 UT	2.8 UT
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	1	1	100	0.0171 JT	0.0171 JT	WR-PG-Ref03	0.0171	0.0171 JT	0.0171 JT	0.0171 JT	0.0171 JT	WR-PG-Ref03	0.0171	0.0171 JT	0.0171 JT

Table 5.5-4. Summary Statistics for Indicator Chemicals in Upriver Invertebrate Tissues.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Pesticides																
Aldrin	µg/kg-Wet	1	1	100	0.36 J	0.36 J	WR-PG-Ref03	0.36	0.36 J	0.36 J	0.36 J	0.36 J	WR-PG-Ref03	0.36	0.36 J	0.36 J
Dieldrin	µg/kg-Wet	1	1	100	0.22 J	0.22 J	WR-PG-Ref03	0.22	0.22 J	0.22 J	0.22 J	0.22 J	WR-PG-Ref03	0.22	0.22 J	0.22 J
gamma-Hexachlorocyclohexane	µg/kg-Wet	1	0	0	--	--	--	--	--	--	0.74 U	0.74 U	WR-PG-Ref03	0.37	0.37 U	0.37 U
Total Chlordanes	µg/kg-Wet	1	0	0	--	--	--	--	--	--	1 UT	1 UT	WR-PG-Ref03	0.5	0.5 UT	0.5 UT
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	1	1	100	0.96 JT	0.96 JT	WR-PG-Ref03	0.96	0.96 JT	0.96 JT	0.96 JT	0.96 JT	WR-PG-Ref03	0.96	0.96 JT	0.96 JT
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	1	1	100	11.3 JT	11.3 JT	WR-PG-Ref03	11.3	11.3 JT	11.3 JT	11.3 JT	11.3 JT	WR-PG-Ref03	11.3	11.3 JT	11.3 JT
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	1	1	100	6.66 JT	6.66 JT	WR-PG-Ref03	6.66	6.66 JT	6.66 JT	6.66 JT	6.66 JT	WR-PG-Ref03	6.66	6.66 JT	6.66 JT
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	1	1	100	3.7 T	3.7 T	WR-PG-Ref03	3.7	3.7 T	3.7 T	3.7 T	3.7 T	WR-PG-Ref03	3.7	3.7 T	3.7 T
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	1	1	100	0.82	0.82	WR-PG-Ref03	0.82	0.82	0.82	0.82	0.82	WR-PG-Ref03	0.82	0.82	0.82
High Molecular Weight PAH	µg/kg-Wet	1	1	100	22.3 JT	22.3 JT	WR-PG-Ref03	22.3	22.3 JT	22.3 JT	22.3 JT	22.3 JT	WR-PG-Ref03	22.3	22.3 JT	22.3 JT
Low Molecular Weight PAH	µg/kg-Wet	1	1	100	4.74 JT	4.74 JT	WR-PG-Ref03	4.74	4.74 JT	4.74 JT	4.74 JT	4.74 JT	WR-PG-Ref03	4.74	4.74 JT	4.74 JT
Naphthalene	µg/kg-Wet	1	0	0	--	--	--	--	--	--	0.72 U	0.72 U	WR-PG-Ref03	0.36	0.36 U	0.36 U
Phenanthrene	µg/kg-Wet	1	1	100	2.6	2.6	WR-PG-Ref03	2.6	2.6	2.6	2.6	2.6	WR-PG-Ref03	2.6	2.6	2.6
Total BaPEq	µg/kg-Wet	1	1	100	1.43 JT	1.43 JT	WR-PG-Ref03	1.43	1.43 JT	1.43 JT	1.43 JT	1.43 JT	WR-PG-Ref03	1.43	1.43 JT	1.43 JT
Total cPAHs	µg/kg-Wet	1	1	100	11 JT	11 JT	WR-PG-Ref03	11	11 JT	11 JT	11 JT	11 JT	WR-PG-Ref03	11	11 JT	11 JT
Total PAHs	µg/kg-Wet	1	1	100	27 JT	27 JT	WR-PG-Ref03	27	27 JT	27 JT	27 JT	27 JT	WR-PG-Ref03	27	27 JT	27 JT
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg-Wet	1	1	100	66 J	66 J	WR-PG-Ref03	66	66 J	66 J	66 J	66 J	WR-PG-Ref03	66	66 J	66 J
Butylbenzyl phthalate	µg/kg-Wet	1	0	0	--	--	--	--	--	--	14 U	14 U	WR-PG-Ref03	7	7 U	7 U
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg-Wet	1	1	100	2800	2800	WR-PG-Ref03	2800	2800	2800	2800	2800	WR-PG-Ref03	2800	2800	2800
Hexachlorobenzene	µg/kg-Wet	1	1	100	0.78 J	0.78 J	WR-PG-Ref03	0.78	0.78 J	0.78 J	0.78 J	0.78 J	WR-PG-Ref03	0.78	0.78 J	0.78 J
Phenols																
Pentachlorophenol	µg/kg-Wet	1	1	100	78 J	78 J	WR-PG-Ref03	78	78 J	78 J	78 J	78 J	WR-PG-Ref03	78	78 J	78 J

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners.

[d] Total PCBs are total Aroclors.

Reason codes for qualifiers:

A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

-- data not available.
BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TEQ - toxic equivalent concentration

Table 5.5-5. Summary Statistics for Indicator Chemicals for Above Falls Fish Tissues.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Brown bullhead (whole body)																
Conventionals																
Lipids	percent-Wet	1	1	100	2.1	2.1	28R001	2.1	2.1	2.1	2.1	2.1	28R001	2.1	2.1	2.1
Metals																
Arsenic	mg/kg-Wet	1	1	100	0.08 J	0.08 J	28R001	0.08	0.08 J	0.08 J	0.08 J	0.08 J	28R001	0.08	0.08 J	0.08 J
Cadmium	mg/kg-Wet	1	1	100	0.006	0.006	28R001	0.006	0.006	0.006	0.006	0.006	28R001	0.006	0.006	0.006
Chromium	mg/kg-Wet	1	1	100	2.04	2.04	28R001	2.04	2.04	2.04	2.04	2.04	28R001	2.04	2.04	2.04
Copper	mg/kg-Wet	1	1	100	0.89	0.89	28R001	0.89	0.89	0.89	0.89	0.89	28R001	0.89	0.89	0.89
Lead	mg/kg-Wet	1	1	100	0.019	0.019	28R001	0.019	0.019	0.019	0.019	0.019	28R001	0.019	0.019	0.019
Mercury	mg/kg-Wet	1	1	100	0.067	0.067	28R001	0.067	0.067	0.067	0.067	0.067	28R001	0.067	0.067	0.067
Nickel	mg/kg-Wet	1	1	100	0.82	0.82	28R001	0.82	0.82	0.82	0.82	0.82	28R001	0.82	0.82	0.82
Zinc	mg/kg-Wet	1	1	100	14.5	14.5	28R001	14.5	14.5	14.5	14.5	14.5	28R001	14.5	14.5	14.5
PCB Aroclors																
Aroclors	µg/kg-Wet	1	1	100	15 JT	15 JT	28R001	15	15 JT	15 JT	15 JT	15 JT	28R001	15	15 JT	15 JT
PCB Congeners																
Total PCB Congeners	pg/g-Wet	1	1	100	19100 JT	19100 JT	28R001	19100	19100 JT	19100 JT	19100 JT	19100 JT	28R001	19100	19100 JT	19100 JT
Total PCBs[c]																
Total PCBs	µg/kg-Wet	1	1	100	19.1 JT	19.1 JT	28R001	19.1	19.1 JT	19.1 JT	19.1 JT	19.1 JT	28R001	19.1	19.1 JT	19.1 JT
PCDD/F Homologs																
Total PCDD/F	pg/g-Wet	1	1	100	3.03 T	3.03 T	28R001	3.03	3.03 T	3.03 T	3.03 T	3.03 T	28R001	3.03	3.03 T	3.03 T
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g-Wet	1	1	100	0.451 JT	0.451 JT	28R001	0.451	0.451 JT	0.451 JT	0.451 JT	0.451 JT	28R001	0.451	0.451 JT	0.451 JT
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	1	1	100	0.487 T	0.487 T	28R001	0.487	0.487 T	0.487 T	0.487 T	0.487 T	28R001	0.487	0.487 T	0.487 T
Pesticides																
Aldrin	µg/kg-Wet	1	0	0	--	--	--	--	--	--	1 U	1 U	28R001	0.5	0.5 U	0.5 U
Dieldrin	µg/kg-Wet	1	1	100	1.2 NJ	1.2 NJ	28R001	1.2	1.2 NJ	1.2 NJ	1.2 NJ	1.2 NJ	28R001	1.2	1.2 NJ	1.2 NJ
gamma-Hexachlorocyclohexane	µg/kg-Wet	1	0	0	--	--	--	--	--	--	1 U	1 U	28R001	0.5	0.5 U	0.5 U
Total Chlordanes	µg/kg-Wet	1	1	100	1.1 NT	1.1 NT	28R001	1.1	1.1 NT	1.1 NT	1.1 NT	1.1 NT	28R001	1.1	1.1 NT	1.1 NT
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	1	1	100	2.3 NJT	2.3 NJT	28R001	2.3	2.3 NJT	2.3 NJT	2.3 NJT	2.3 NJT	28R001	2.3	2.3 NJT	2.3 NJT
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	1	1	100	18 NJT	18 NJT	28R001	18	18 NJT	18 NJT	18 NJT	18 NJT	28R001	18	18 NJT	18 NJT
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	1	1	100	12 JT	12 JT	28R001	12	12 JT	12 JT	12 JT	12 JT	28R001	12	12 JT	12 JT
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	1	1	100	3.7 NJT	3.7 NJT	28R001	3.7	3.7 NJT	3.7 NJT	3.7 NJT	3.7 NJT	28R001	3.7	3.7 NJT	3.7 NJT
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	1	0	0	--	--	--	--	--	--	33 UT	33 UT	28R001	17	17 UT	17 UT
High Molecular Weight PAH	µg/kg-Wet	1	0	0	--	--	--	--	--	--	93 UT	93 UT	28R001	47	47 UT	47 UT
Low Molecular Weight PAH	µg/kg-Wet	1	0	0	--	--	--	--	--	--	86 UT	86 UT	28R001	43	43 UT	43 UT
Naphthalene	µg/kg-Wet	1	0	0	--	--	--	--	--	--	70 UT	70 UT	28R001	35	35 UT	35 UT
Phenanthrene	µg/kg-Wet	1	0	0	--	--	--	--	--	--	83 UT	83 UT	28R001	42	42 UT	42 UT
Total BaPEq	µg/kg-Wet	1	0	0	--	--	--	--	--	--	33 UT	33 UT	28R001	16.5	16.5 UT	16.5 UT
Total cPAHs	µg/kg-Wet	1	0	0	--	--	--	--	--	--	33 UT	33 UT	28R001	17	17 UT	17 UT
Total PAHs	µg/kg-Wet	1	0	0	--	--	--	--	--	--	93 UT	93 UT	28R001	47	47 UT	47 UT
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg-Wet	1	0	0	--	--	--	--	--	--	99 UJT	99 UJT	28R001	50	50 UJT	50 UJT
Butylbenzyl phthalate	µg/kg-Wet	1	0	0	--	--	--	--	--	--	330 UJ	330 UJ	28R001	170	170 UJ	170 UJ
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg-Wet	1	0	0	--	--	--	--	--	--	330 U	330 U	28R001	170	170 U	170 U
Hexachlorobenzene	µg/kg-Wet	1	0	0	--	--	--	--	--	--	33 UT	33 UT	28R001	17	17 UT	17 UT
Phenols																
Pentachlorophenol	µg/kg-Wet	1	0	0	--	--	--	--	--	--	170 UT	170 UT	28R001	85	85 UT	85 UT

Table 5.5-5. Summary Statistics for Indicator Chemicals for Above Falls Fish Tissues.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Chinook (whole body)																
Conventionals																
Lipids	percent-Wet	1	1	100	2.7	2.7	26R111	2.7	2.7	2.7	2.7	2.7	26R111	2.7	2.7	2.7
Metals																
Arsenic	mg/kg-Wet	1	1	100	0.03 J	0.03 J	26R111	0.03	0.03 J	0.03 J	0.03 J	0.03 J	26R111	0.03	0.03 J	0.03 J
Cadmium	mg/kg-Wet	1	1	100	0.005 J	0.005 J	26R111	0.005	0.005 J	0.005 J	0.005 J	0.005 J	26R111	0.005	0.005 J	0.005 J
Chromium	mg/kg-Wet	1	0	0	--	--	--	--	--	--	0.07 U	0.07 U	26R111	0.035	0.035 U	0.035 U
Copper	mg/kg-Wet	1	1	100	1.35	1.35	26R111	1.35	1.35	1.35	1.35	1.35	26R111	1.35	1.35	1.35
Lead	mg/kg-Wet	1	0	0	--	--	--	--	--	--	0.003 UJ	0.003 UJ	26R111	0.0015	0.0015 UJ	0.0015 UJ
Mercury	mg/kg-Wet	1	1	100	0.012	0.012	26R111	0.012	0.012	0.012	0.012	0.012	26R111	0.012	0.012	0.012
Nickel	mg/kg-Wet	1	1	100	0.295 J	0.295 J	26R111	0.295	0.295 J	0.295 J	0.295 J	0.295 J	26R111	0.295	0.295 J	0.295 J
Zinc	mg/kg-Wet	1	1	100	34	34	26R111	34	34	34	34	34	26R111	34	34	34
PCB Aroclors																
Aroclors	µg/kg-Wet	1	1	100	14.5 T	14.5 T	26R111	14.5	14.5 T	14.5 T	14.5 T	14.5 T	26R111	14.5	14.5 T	14.5 T
Total PCBs[d]																
Total PCBs	µg/kg-Wet	1	1	100	14.5 T	14.5 T	26R111	14.5	14.5 T	14.5 T	14.5 T	14.5 T	26R111	14.5	14.5 T	14.5 T
Pesticides																
Aldrin	µg/kg-Wet	1	0	0	--	--	--	--	--	--	1 U	1 U	26R111	0.5	0.5 U	0.5 U
Dieldrin	µg/kg-Wet	1	0	0	--	--	--	--	--	--	1 UJ	1 UJ	26R111	0.5	0.5 UJ	0.5 UJ
gamma-Hexachlorocyclohexane	µg/kg-Wet	1	0	0	--	--	--	--	--	--	1 U	1 U	26R111	0.5	0.5 U	0.5 U
Total Chlordanes	µg/kg-Wet	1	0	0	--	--	--	--	--	--	1 UT	1 UT	26R111	0.5	0.5 UT	0.5 UT
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	1	0	0	--	--	--	--	--	--	1 UJT	1 UJT	26R111	0.5	0.5 UJT	0.5 UJT
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	1	1	100	8.5 JT	8.5 JT	26R111	8.5	8.5 JT	8.5 JT	8.5 JT	8.5 JT	26R111	8.5	8.5 JT	8.5 JT
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	1	1	100	7.2 T	7.2 T	26R111	7.2	7.2 T	7.2 T	7.2 T	7.2 T	26R111	7.2	7.2 T	7.2 T
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	1	1	100	1.3 JT	1.3 JT	26R111	1.3	1.3 JT	1.3 JT	1.3 JT	1.3 JT	26R111	1.3	1.3 JT	1.3 JT
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	1	0	0	--	--	--	--	--	--	27 UT	27 UT	26R111	14	14 UT	14 UT
High Molecular Weight PAH	µg/kg-Wet	1	0	0	--	--	--	--	--	--	27 UT	27 UT	26R111	14	14 UT	14 UT
Low Molecular Weight PAH	µg/kg-Wet	1	0	0	--	--	--	--	--	--	27 UT	27 UT	26R111	14	14 UT	14 UT
Naphthalene	µg/kg-Wet	1	0	0	--	--	--	--	--	--	27 UT	27 UT	26R111	14	14 UT	14 UT
Phenanthrene	µg/kg-Wet	1	0	0	--	--	--	--	--	--	27 UT	27 UT	26R111	14	14 UT	14 UT
Total BaPEq	µg/kg-Wet	1	0	0	--	--	--	--	--	--	27 UT	27 UT	26R111	13.5	13.5 UT	13.5 UT
Total cPAHs	µg/kg-Wet	1	0	0	--	--	--	--	--	--	27 UT	27 UT	26R111	14	14 UT	14 UT
Total PAHs	µg/kg-Wet	1	0	0	--	--	--	--	--	--	27 UT	27 UT	26R111	14	14 UT	14 UT
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg-Wet	1	0	0	--	--	--	--	--	--	81 UT	81 UT	26R111	41	41 UT	41 UT
Butylbenzyl phthalate	µg/kg-Wet	1	0	0	--	--	--	--	--	--	2000 U	2000 U	26R111	1000	1000 U	1000 U
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg-Wet	1	0	0	--	--	--	--	--	--	270 U	270 U	26R111	140	140 U	140 U
Hexachlorobenzene	µg/kg-Wet	1	0	0	--	--	--	--	--	--	1 UT	1 UT	26R111	0.5	0.5 UT	0.5 UT
Phenols																
Pentachlorophenol	µg/kg-Wet	1	0	0	--	--	--	--	--	--	140 UT	140 UT	26R111	70	70 UT	70 UT

Table 5.5-5. Summary Statistics for Indicator Chemicals for Above Falls Fish Tissues.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Smallmouth bass (whole body)																
Conventionals																
Lipids	percent-Wet	3	3	100	4.1	4.9	28R001	4.51	4.53 T	4.86 V	4.1	4.9	28R001	4.51	4.53 T	4.86 V
Metals																
Arsenic	mg/kg-Wet	3	3	100	0.1 J	0.19	28R001	0.14	0.14 J	0.19 JV	0.1 J	0.19	28R001	0.14	0.14 J	0.19 JV
Cadmium	mg/kg-Wet	3	1	33.3	0.011	0.011	28R001	0.011	0.011	0.011	0.003 U	0.011	28R001	0.00467	0.0015 U	0.0101 V
Chromium	mg/kg-Wet	3	3	100	0.9	2.22	28R001	1.56	1.55	2.15 V	0.9	2.22	28R001	1.56	1.55	2.15 V
Copper	mg/kg-Wet	3	3	100	0.41	0.51	28R001	0.47	0.48	0.51 V	0.41	0.51	28R001	0.47	0.48	0.51 V
Lead	mg/kg-Wet	3	3	100	0.004 J	0.014	28R001	0.008	0.006 J	0.0132 JV	0.004 J	0.014	28R001	0.008	0.006 J	0.0132 JV
Mercury	mg/kg-Wet	3	3	100	0.183	0.286	28R001	0.234	0.233	0.281 V	0.183	0.286	28R001	0.234	0.233	0.281 V
Nickel	mg/kg-Wet	3	3	100	0.55	1.32	28R001	0.84	0.65	1.25 V	0.55	1.32	28R001	0.84	0.65	1.25 V
Zinc	mg/kg-Wet	3	3	100	15	16.8	28R001	15.6	15	16.6 V	15	16.8	28R001	15.6	15	16.6 V
PCB Aroclors																
Aroclors	µg/kg-Wet	3	1	33	63 T	63 T	28R001	63	63 T	63 T	63 T	77 UT	28R001	46	39 UT	61 V
PCB Congeners																
Total PCB Congeners	pg/g-Wet	3	3	100	78100 JT	111000 JT	28R001	99000	108000 JT	111000 JV	78100 JT	111000 JT	28R001	99000	108000 JT	111000 JV
Total PCBs[c]																
Total PCBs	µg/kg-Wet	3	3	100	78.1 JT	111 JT	28R001	99	108 JT	111 JV	78.1 JT	111 JT	28R001	99	108 JT	111 JV
PCDD/F Homologs																
Total PCDD/F	pg/g-Wet	3	3	100	3.99 T	5.73 T	28R001	4.77	4.58 T	5.62 V	3.99 T	5.73 T	28R001	4.77	4.58 T	5.62 V
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g-Wet	3	3	100	0.905 JT	1.19 JT	28R001	1.03	0.995 JT	1.17 JV	0.905 JT	1.19 JT	28R001	1.03	0.995 JT	1.17 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g-Wet	3	3	100	1.76 T	2.38 T	28R001	2.15	2.3 T	2.37 V	1.76 T	2.38 T	28R001	2.15	2.3 T	2.37 V
Pesticides																
Aldrin	µg/kg-Wet	3	0	0	--	--	--	--	--	--	1 U	1 U	28R001	0.5	0.5 U	0.5 UV
Dieldrin	µg/kg-Wet	3	3	100	1.9 NJ	2.5 NJ	28R001	2.1	2 NJ	2.5 JV	1.9 NJ	2.5 NJ	28R001	2.1	2 NJ	2.5 JV
gamma-Hexachlorocyclohexane	µg/kg-Wet	3	3	100	2.7 NJ	4.1 NJ	28R001	3.3	3.1 NJ	4 JV	2.7 NJ	4.1 NJ	28R001	3.3	3.1 NJ	4 JV
Total Chlordanes	µg/kg-Wet	3	3	100	4.5 NJT	6.6 NJT	28R001	5.7	5.9 NJT	6.5 JV	4.5 NJT	6.6 NJT	28R001	5.7	5.9 NJT	6.5 JV
Total of 2,4' and 4,4'-DDD	µg/kg-Wet	3	3	100	8 NJT	12.8 NJT	28R001	10.1	9.6 NJT	12.5 JV	8 NJT	12.8 NJT	28R001	10.1	9.6 NJT	12.5 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg-Wet	3	3	100	60.1 NJT	89.2 NJT	28R001	75.6	77.5 NJT	88 JV	60.1 NJT	89.2 NJT	28R001	75.6	77.5 NJT	88 JV
Total of 2,4' and 4,4'-DDE	µg/kg-Wet	3	3	100	39 JT	59 JT	28R001	48	47 JT	58 JV	39 JT	59 JT	28R001	48	47 JT	58 JV
Total of 2,4' and 4,4'-DDT	µg/kg-Wet	3	3	100	13.1 NJT	20.6 NJT	28R001	17.1	17.7 NJT	20.3 JV	13.1 NJT	20.6 NJT	28R001	17.1	17.7 NJT	20.3 JV
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg-Wet	3	0	0	--	--	--	--	--	--	33 UT	33 UT	28R001	17	17 UT	17 UV
High Molecular Weight PAH	µg/kg-Wet	3	0	0	--	--	--	--	--	--	33 UT	93 UT	28R001	27	17 UT	44 UV
Low Molecular Weight PAH	µg/kg-Wet	3	0	0	--	--	--	--	--	--	70 UT	73 UT	28R001	36	37 UT	37 UV
Naphthalene	µg/kg-Wet	3	0	0	--	--	--	--	--	--	70 UT	70 UT	28R001	35	35 UT	35 UV
Phenanthrene	µg/kg-Wet	3	0	0	--	--	--	--	--	--	33 UT	33 UT	28R001	17	17 UT	17 UV
Total BaPEq	µg/kg-Wet	3	0	0	--	--	--	--	--	--	33 UT	33 UT	28R001	16.5	16.5 UT	16.5 UV
Total cPAHs	µg/kg-Wet	3	0	0	--	--	--	--	--	--	33 UT	70 UT	28R001	23	17 UT	33 UV
Total PAHs	µg/kg-Wet	3	0	0	--	--	--	--	--	--	70 UT	93 UT	28R001	39	37 UT	46 UV
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg-Wet	3	0	0	--	--	--	--	--	--	99 UJT	100 UJT	28R001	50	50 UJT	50 UJV
Butylbenzyl phthalate	µg/kg-Wet	3	0	0	--	--	--	--	--	--	330 UJ	330 UJ	28R001	170	170 UJ	170 UJV

Table 5.5-5. Summary Statistics for Indicator Chemicals for Above Falls Fish Tissues.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg-Wet	3	0	0	--	--	--	--	--	--	330 U	330 U	28R001	170	170 U	170 UV
Hexachlorobenzene	µg/kg-Wet	3	0	0	--	--	--	--	--	--	1.4 UT	1.8 UT	28R001	0.77	0.7 UT	0.88 UV
Phenols																
Pentachlorophenol	µg/kg-Wet	3	0	0	--	--	--	--	--	--	170 UJT	170 UJT	28R001	85	85 UT	85 UV

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners whenever available and total Aroclors if not.

[d] Total PCBs are total Aroclors.

Reason codes for qualifiers:

A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

-- data not available.
BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PBDE - polybrominated diphenyl ether
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TEQ - toxic equivalent concentration

Table 5.5-6. Biota Samples Collected from the Upriver Reach and Above Willamette Falls.

Location	Number of Samples	Species	Tissue	Reach	Study Name
Fish Tissue Samples[a]					
28R001	3	Smallmouth bass	Whole body	Above Falls	Round 1 tissue samples
28R001	1	Brown bullhead	Whole body	Above Falls	Round 1 tissue samples
26R111	1	Chinook	Whole body	Above Falls	Round 1a tissue samples
20R001	3	Smallmouth bass	Whole body	Upriver	Round 1 tissue samples
20R001	2	Brown bullhead	Whole body	Upriver	Round 1 tissue samples
T04	3	Chinook	Whole body	Upriver	Round 2A tissue
LT023b, LT023c	4	Lamprey	Whole body	Upriver	Round 3 lamprey tissue composites
Invertebrate Tissue Samples					
WR-PG-Ref03	1	Clam, lab	Not depurated	Upriver	2005 O&M dredge sediment characterization
WR-PG-Ref03	1	Lumbriculus	Whole body	Upriver	2005 O&M dredge sediment characterization
T04	1	Chinook	Stomach contents	Upriver	Round 2A tissue

Notes:

[a] Two additional species collected by ODHS et al. (2003) are not included in discussions of the nature and extent of contamination because, although they were collected above Willamette Falls, they represent conditions outside of the upstream areas. These include:

- Four adult lamprey tissues collected from the Willamette Falls area
- Ten adult chinook samples from the Clackamas River hatchery, including 3 fillets with skin, 3 fillets without skin, and 4 whole bodies.

Table 5.6-1. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Surface Sediment, Upriver Reach (RM 15.3-28.4).

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Grain Size																
Fines	percent	80	80	100	0.28	98.4	U6TOC-2	30.5	28.3 V	67.4 V	0.28	98.4 T	U6TOC-2	30.5	28.3 V	67.4 V
Conventionals																
Total organic carbon	percent	77	77	100	0.12	2.57	U6TOC-2	1.13	1.18	2.29 V	0.12	2.57	U6TOC-2	1.13	1.18	2.29 V
Metals																
Arsenic	mg/kg	77	73	94.8	1.9	5.29	U6TOC-2	2.94	2.84 T	4.05 V	1.9	5.29	U6TOC-2	2.85	2.78	4.04 V
Cadmium	mg/kg	72	63	87.5	0.042 J	0.281 J	G027	0.126	0.12	0.21 V	0.042 J	0.3 UJ	HC-SS29; HC-SS31; HC-SS32	0.121	0.118 V	0.209 V
Chromium	mg/kg	66	66	100	11.9	40.5	HC08	23.1	23.1 JV	32.4 V	11.9	40.5	HC08	23.1	23.1 JV	32.4 V
Copper	mg/kg	72	72	100	10.5	50.9	HC08	24.6	24.5 V	35.9 JV	10.5	50.9	HC08	24.6	24.5 V	35.9 JV
Lead	mg/kg	72	72	100	3.96 JT	31.6 JT	BH04SD	8.55	7.68 JV	14 V	3.96 JT	31.6 J	BH04SD	8.55	7.68 JV	14 V
Mercury	mg/kg	68	60	88.2	0.009 J	0.061 J	G786	0.0333	0.034 V	0.0512 V	0.009 J	0.19 U	HC-SS29; HC-SS31; HC-SS32	0.0354	0.034 V	0.0798 V
Nickel	mg/kg	72	72	100	12.3	35.7	HC08	21.3	21.3 V	26.5 JV	12.3	35.7	HC08	21.3	21.3 V	26.5 JV
Zinc	mg/kg	72	72	100	41.1	165	U2C-2	75.2	74.5 V	100 V	41.1	165	U2C-2	75.2	74.5 V	100 V
Butyltins																
Tributyltin ion	µg/kg	8	4	50	0.72 J	2.3 J	G028	1.31	1.1 JV	2.12 JV	0.082 U	2.3	G028	0.675	0.388 JV	1.88 JV
PCB Aroclors																
Aroclors	µg/kg	81	25	30.9	1.47 JT	52.8 JT	UG02C	7.99	4.46 T	32.5 JV	1 UT	52.8 JT	UG02C	6.46	3.8 JT	19.5 UT
PCB Congeners																
Total PCB Congeners	pg/g	26	26	100	290 JT	31000 JT	U2C-2	4220	2710 JV	19700 V	290 JT	31000 T	U2C-2	4220	2710 JV	19700 V
Total PCBs[c]																
Total PCBs	µg/kg	81	42	51.9	0.29 JT	31 JT	U2C-2	4.48	2.99 JV	14.3 JV	0.29 JT	42 UT	HC08	5.69	2.9 JT	19.5 UT
PCDD/Fs Homologs																
Total PCDD/F	pg/g	39	38	97.4	2.39 T	733 T	G027	90.3	59.1 JV	298 JV	2.39 T	733 T	G027	88.1	57.1 JT	297 JV
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g	49	48	98	0.00684 JT	2.99 JT	WR04SD	0.315	0.114 JV	1.17 V	0.00684 JT	2.99 T	WR04SD	0.309	0.111 A	1.15 V
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g	26	25	96.2	0.000455 T	0.723 T	U2C-2	0.0996	0.00608 JT	0.562 JV	0.000455 T	2.65 UT	WR06SD	0.147	0.00621 JV	0.706 JV
Pesticides																
Aldrin	µg/kg	77	7	9.09	0.17 J	0.55 J	UG03B	0.334	0.32 J	0.508 V	0.0329 UJ	2.1 U	HC08	0.243	0.135 U	0.95 UV
Dieldrin	µg/kg	77	10	13	0.092 NJ	0.4 NJ	G027	0.209	0.162 JV	0.396 V	0.03 U	2.1 U	HC08	0.251	0.092 NJ	0.95 UV
gamma-Hexachlorocyclohexane	µg/kg	77	1	1.3	0.32 NJ	0.32 NJ	UG12C	0.32	0.32 NJ	0.32 NJ	0.043 U	2.1 U	HC08	0.213	0.086 U	0.95 UV
Total Chlordanes	µg/kg	77	38	49.4	0.057 JT	1.53 JT	G027	0.391	0.345 JV	0.806 JV	0.0438 UT	2.1 UA	HC08	0.383	0.24 UT	1 UV
Total of 2,4' and 4,4'-DDD	µg/kg	81	47	58	0.12 JT	3.6 JT	G027	0.661	0.5 T	1.34 JV	0.047 UT	3.6 T	G027	0.638	0.47 UT	1.65 UA
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg	81	56	69.1	0.087 JT	14.6 JT	HC10	2.01	1.72 JV	5.38 JV	0.087 JT	14.6 JA	HC10	1.71	1.2 T	3.35 UA
Total of 2,4' and 4,4'-DDE	µg/kg	81	55	67.9	0.087 JT	2.45 JT	U6TOC-2	0.929	0.86 T	1.79 JV	0.034 UT	2.45 T	U6TOC-2	0.847	0.79 T	1.5 JT
Total of 2,4' and 4,4'-DDT	µg/kg	81	23	28.4	0.21 JT	13 JT	HC10	1.32	0.69 T	2.84 JV	0.0486 UJT	13 A	HC10	0.736	0.36 T	3.35 UA
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg	78	61	78.2	0.53 J	124 J	G027	9.89	6.3	27	0.33 U	124 JT	G027	9.33	5.55 V	25.3 V
High Molecular Weight PAH	µg/kg	78	65	83.3	1.7 JT	1320 JT	G027	94.2	59.5 T	251 JV	1 UT	1320 T	G027	80.1	51 JV	188 JV
Low Molecular Weight PAH	µg/kg	78	60	76.9	0.44 JT	192 JT	G027	16.3	12 JV	28.7 JV	0.44 JT	192 T	G027	14.3	10.9 JV	26.4 JV
Naphthalene	µg/kg	78	38	48.7	1.5 J	9.9 J	UG03B	4.34	4.15 JV	8.1 V	0.55 U	50 U	HC-SS29; HC-SS31; HC-SS32	4.52	2.98 V	12.2 V
Phenanthrene	µg/kg	77	48	62.3	0.91 J	128 J	G027	9.7	5.45 V	17.3 JV	0.59 U	128 JT	G027	8.15	4.3 J	25 UV
Total BaPEq	µg/kg	78	65	83.3	0.17 JT	181 JT	G027	13.7	8.6 JT	32.9 JV	0.17 JT	181 JT	G027	13	8.21 JV	27.1 JV
Total cPAHs	µg/kg	78	65	83.3	0.49 JT	700 JT	G027	52.7	35 T	140 JV	0.49 JT	700 JT	G027	45.5	28.5 JV	140 JV
Total PAHs	µg/kg	78	66	84.6	0.91 JT	1510 JT	G027	107	70 JV	255 JV	0.91 JT	1510 T	G027	92.4	58.9 JV	196 JV

Table 5.6-1. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Surface Sediment, Upriver Reach (RM 15.3-28.4).

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location**	**Mean**	**Median[b]**	**95th[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location**	**Mean (half DL)**	**Median (half DL)[b]**	**95th (half DL)[b]**
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg	72	62	86	4.2 J	2100 J	U1C-3	88	34 V	200 V	3.2 UJ	2100	U1C-3	85	34 JV	200 V
Butylbenzyl phthalate	µg/kg	72	27	38	2.7 J	33 J	UG11C	15	17	25 V	2.2 U	100 U	HC-SS29; HC-SS31; HC-SS32	9.7	2.8 JV	41 JV
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg	72	39	54	2.5 J	25 J	WR01	13	11 J	24 V	2.1 U	25	HC-SS29; HC-SS31; HC-SS32; WR01	9.2	6.4 JV	23 V
Hexachlorobenzene	µg/kg	72	36	50	0.075 J	25 J	WR01	6.67	0.344 JV	24 V	0.068 U	25	WR01	4.65	0.617 JV	23.5 V
Phenols																
Pentachlorophenol	µg/kg	78	12	15	1.5	12	U1C-1	4.5	4.4 V	9.1 JV	0.25 U	250 U	HC-SS29; HC-SS31; HC-SS32	14	1.6 UV	110 UV
Petroleum																
Diesel-range Hydrocarbons	mg/kg	43	34	79.1	2.6 T	69 T	UG02F	36.1	35.5 JV	59.1 JV	2.6 T	69 J	UG02F	30.1	30.3 JT	57.8 JV
Diesel-range Hydrocarbons (silica gel treated)	mg/kg	32	32	100	1.7 T	49.5 T	G027	22.1	20.4 JV	38.9 JV	1.7 T	49.5 JT	G027	22.1	20.4 JV	38.9 JV
Residual-range Hydrocarbons	mg/kg	39	36	92.3	9.2 T	420 T	UG02F	226	219 JV	390 JV	9.2 T	420 J	UG02F	210	214 JT	390 JV
Residual-range Hydrocarbons (silica gel treated)	mg/kg	32	32	100	6.9 T	315 T	G027	96.8	86 JV	182 JV	6.9 T	315 JT	G027	96.8	86 JV	182 JV
Total Petroleum Hydrocarbons	mg/kg	43	39	90.7	11.8 A	489 A	UG02F	254	250 JA	447 JV	11.8 A	489 JA	UG02F	232	240	445 JV
Total Petroleum Hydrocarbons (silica gel treated)	mg/kg	32	32	100	8.6 A	365 A	G027	119	108 JV	217 JV	8.6 A	365 T	G027	119	108 JV	217 JV

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners whenever available and total Aroclors if not.

Reason codes for qualifiers:

A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

-- data not available.
BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TEQ - toxic equivalent concentration
TOC - total organic carbon

Table 5.6-2. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Subsurface Sediment, Upriver Reach (RM 15.3-28.4).

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Grain Size																
Fines	percent	3	3	100	22.2 T	43.6 T	C016	30.6	25.9 T	41.8 V	22.2 T	43.6 T	C016	30.6	25.9 T	41.8 V
Conventionals																
Total organic carbon	percent	3	3	100	1.15	1.8	C016	1.47	1.47	1.77 V	1.15	1.8 T	C016	1.47	1.47	1.77 V
Metals																
Arsenic	mg/kg	3	3	100	2.37	2.45	C032	2.41	2.4	2.45 V	2.37	2.45	C032	2.41	2.4	2.45 V
Cadmium	mg/kg	3	3	100	0.132	0.217	C016	0.179	0.187	0.214 V	0.132	0.217	C016	0.179	0.187	0.214 V
Chromium	mg/kg	3	3	100	19.7	23.4	C032	21.2	20.5	23.1 V	19.7	23.4	C032	21.2	20.5	23.1 V
Copper	mg/kg	3	3	100	26	33	C016	28.6	26.8	32.4 V	26	33	C016	28.6	26.8	32.4 V
Lead	mg/kg	3	3	100	9.34 J	19.4 J	C016	14.4	14.6 J	18.9 JV	9.34 J	19.4 J	C016	14.4	14.6 J	18.9 JV
Mercury	mg/kg	3	3	100	0.031	0.172	C016	0.0943	0.08	0.163 V	0.031	0.172 T	C016	0.0943	0.08	0.163 V
Nickel	mg/kg	3	3	100	19	21.1	C017	20.2	20.6	21.1 V	19	21.1	C017	20.2	20.6	21.1 V
Zinc	mg/kg	3	3	100	65.8	119	C017	87.6	78.1	115 V	65.8	119	C017	87.6	78.1	115 V
Butyltins																
Tributyltin ion	µg/kg	3	0	0	--	--	--	--	--	--	0.085 U	0.094 U	C032	0.0453	0.0465 U	0.047 UV
PCB Aroclors																
Aroclors	µg/kg	3	0	0	--	--	--	--	--	--	2.8 UT	11 UT	C017	3.2	2.8 UT	5.2 UV
Total PCBs[c]																
Total PCBs	µg/kg	3	0	0	--	--	--	--	--	--	2.8 UT	11 UT	C017	3.2	2.8 UT	5.2 UV
PCDD/Fs Homologs																
Total PCDD/F	pg/g	3	3	100	359 T	1090 T	C016	816	1000 T	1080 V	359 T	1090 T	C016	816	1000 T	1080 V
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g	3	3	100	0.656 T	2.63 T	C016	1.55	1.37 T	2.5 V	0.656 T	2.63 T	C016	1.55	1.37 T	2.5 V
Pesticides																
Aldrin	µg/kg	3	0	0	--	--	--	--	--	--	0.055 U	0.2 U	C016	0.0517	0.0275 U	0.0928 UV
Dieldrin	µg/kg	3	0	0	--	--	--	--	--	--	0.036 U	0.036 U	C016; C017; C032	0.018	0.018 U	0.018 UV
gamma-Hexachlorocyclohexane	µg/kg	3	0	0	--	--	--	--	--	--	0.043 U	0.2 U	C016; C032	0.0738	0.1 U	0.1 UV
Total Chlordanes	µg/kg	3	3	100	0.187 T	2.93 T	C016	1.34	0.89 T	2.73 V	0.187 T	2.93 T	C016	1.34	0.89 T	2.73 V
Total of 2,4' and 4,4'-DDD	µg/kg	3	3	100	0.41 T	5.7 T	C016	3	2.9 T	5.4 V	0.41 T	5.7 T	C016	3	2.9 T	5.4 V
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg	3	3	100	0.99 T	9.74 T	C016	5.83	6.75 T	9.44 V	0.99 T	9.74 T	C016	5.83	6.75 T	9.44 V
Total of 2,4' and 4,4'-DDE	µg/kg	3	3	100	0.58 T	2.4 T	C016	1.7	2 T	2.4 V	0.58 T	2.4 T	C016	1.7	2 T	2.4 V
Total of 2,4' and 4,4'-DDT	µg/kg	3	2	66.7	1.64 T	1.85 T	C017	1.75	1.75 V	1.84 V	0.2 UT	1.85 T	C017	1.2	1.64 T	1.83 V
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg	3	3	100	20	34	C016	29	32	34 V	20	34	C016	29	32	34 V
High Molecular Weight PAH	µg/kg	3	3	100	230 T	404 T	C016	317	317 T	395 V	230 T	404 T	C016	317	317 T	395 V
Low Molecular Weight PAH	µg/kg	3	3	100	23.2 T	129 T	C016	67.1	49.1 T	121 V	23.2 T	129 T	C016	67.1	49.1 T	121 V
Naphthalene	µg/kg	3	3	100	4.2	36	C016	16	8.9	33 V	4.2	36	C016	16	8.9	33 V
Phenanthrene	µg/kg	3	3	100	12	55	C016	29	21	52 V	12	55	C016	29	21	52 V
Total BaPEq	µg/kg	3	3	100	31.1 T	51.7 T	C016	44.4	50.4 T	51.6 V	31.1 T	51.7 T	C016	44.4	50.4 T	51.6 V
Total cPAHs	µg/kg	3	3	100	130 T	200 T	C016	170	190 T	200 V	130 T	200 T	C016	170	190 T	200 V
Total PAHs	µg/kg	3	3	100	253 T	533 T	C016	384	366 T	516 V	253 T	533 T	C016	384	366 T	516 V

Table 5.6-2. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Subsurface Sediment, Upriver Reach (RM 15.3-28.4).

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg	3	3	100	20 J	3800 J	C032	1300	110	3400 V	20 J	3800	C032	1300	110	3400 V
Butylbenzyl phthalate	µg/kg	3	1	33	16	16	C016	16	16	16	3.2 U	16	C016	6.4	1.6 U	15 V
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg	3	0	0	--	--	--	--	--	--	2.1 U	2.1 U	C016; C017; C032	1.1	1.1 U	1.1 UV
Hexachlorobenzene	µg/kg	3	1	33	0.28	0.28	C016	0.28	0.28	0.28	0.12 U	0.28	C016	0.13	0.06 U	0.26 V
Phenols																
Pentachlorophenol	µg/kg	3	0	0	--	--	--	--	--	--	5.4 U	5.8 U	C016; C032	2.8	2.9 U	2.9 UV
Petroleum																
Diesel-range Hydrocarbons (silica gel treated)	mg/kg	3	3	100	21 J	58 J	C016	42	46 J	57 JV	21 J	58 J	C016	42	46 J	57 JV
Residual-range Hydrocarbons (silica gel treated)	mg/kg	3	3	100	130 J	290 J	C016	190	160 J	280 JV	130 J	290 J	C016	190	160 J	280 JV
Total Petroleum Hydrocarbons (silica gel treated)	mg/kg	3	3	100	176 T	348 T	C016	235	181 T	331 V	176 T	348 T	C016	235	181 T	331 V

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners whenever available and total Aroclors if not.

Reason codes for qualifiers:

A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

-- data not available.
BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TOC - total organic carbon

Table 5.6-3. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Surface Sediment, Downtown Reach (RM 11.8-15.3).

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location**	**Mean**	**Median[b]**	**95th[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location**	**Mean (half DL)**	**Median (half DL)[b]**	**95th (half DL)[b]**
Grain Size																
Fines	percent	116	116	100	0.3 T	89.4 T	WRS38	20.9	13.5 V	69.7 V	0.3 T	89.4 T	WRS38	20.9	13.5 V	69.7 V
Conventionals																
Total organic carbon	percent	96	96	100	0.05 J	13.1 J	G045	1.13	0.85 V	2.48 V	0.05 J	13.1	G045	1.13	0.85 V	2.48 V
Metals																
Arsenic	mg/kg	169	137	81.1	1.07	126	G006	6.89	3.06	24.3 JV	1.07	126	G006	5.85	2.79	16.2 V
Cadmium	mg/kg	169	132	78.1	0.03 J	132 J	R12	2.26	0.26 JV	6.31 JV	0.03 J	132 J	R12	1.83	0.27 UJ	6.15 JV
Chromium	mg/kg	165	165	100	4.51	758	R50	41.7	22	143 JV	4.51	758 J	R50	41.7	22	143 JV
Copper	mg/kg	169	165	97.6	9.52	2150	R38	121	30.7	620 JV	1.57 U	2150 J	R38	119	29.9 J	583 JV
Lead	mg/kg	169	160	94.7	2.1	20800	R12	300	35.1 V	868 JV	2.1	20800 J	R12	284	27	799 JV
Mercury	mg/kg	163	144	88.3	0.007	20.2	R50	0.436	0.0655 V	1.38 JV	0.007	20.2 J	R50	0.394	0.0677 J	1.27 JV
Nickel	mg/kg	168	168	100	3.89 J	11500 J	R50	103	19.5 JV	91.6 JV	3.89 J	11500 J	R50	103	19.5 JV	91.6 JV
Zinc	mg/kg	169	169	100	29.9 J	6480 J	R50	355	96	1670 JV	29.9 J	6480 J	R50	355	96	1670 JV
Butyltins																
Tributyltin ion	µg/kg	125	45	36	0.4 J	1990 J	WRS20	98.2	3	188 V	0.0013 U	1990	WRS20	35.4	0.29 U	38.8 V
PCB Aroclors																
Aroclors	µg/kg	170	120	70.6	1.3 T	19700 T	R50	814	61.1 V	4280 V	0.24 UT	19700 T	R50	582	49.4 V	3240 V
PCB Congeners																
Total PCB Congeners	pg/g	5	5	100	6830 JT	912000 JT	GCRSP12E	321000	62500 JT	851000 JV	6830 JT	912000 JT	GCRSP12E	321000	62500 JT	851000 JV
Total PCBs[c]																
Total PCBs	µg/kg	170	120	70.6	1.3 T	19700 T	R50	824	62.3 JV	4280 V	0.24 UT	19700 T	R50	589	49.9 V	3240 V
PCDD/Fs Homologs																
Total PCDD/F	pg/g	44	42	95.5	9.45 T	15400 T	G030	1200	461 V	3590 V	9.45 T	15400 T	G030	1150	422 V	3500 V
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g	44	42	95.5	0.0112 T	19.2 T	G030	2.9	1.54 V	9.89 V	0.0112 T	19.2 T	G030	2.76	1.23 V	9.78 V
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g	5	5	100	0.013 JT	4.51 JT	GCA12E	1.68	0.421 JT	4.24 V	0.013 JT	4.51 T	GCA12E	1.68	0.421 JT	4.24 V
Pesticides																
Aldrin	µg/kg	91	18	19.8	0.0735 JT	0.7 JT	UG08	0.273	0.215 JV	0.632 JV	0.055 U	4.1 U	G048	0.15	0.07 U	0.61 JV
Dieldrin	µg/kg	91	11	12.1	0.042 J	6.7 J	G058	0.855	0.16 J	3.9 V	0.03 U	6.7	G058	0.218	0.085 U	0.4 V
gamma-Hexachlorocyclohexane	µg/kg	91	11	12.1	0.059 J	1.4 J	G045	0.532	0.35 J	1.3 JV	0.043 U	2 U	PA03; PA04	0.164	0.08 U	0.925 UV
Total Chlordanes	µg/kg	91	72	79.1	0.039 T	15.9 T	G030	1.48	0.605 V	4.25 JV	0.039 T	15.9 T	G030	1.26	0.55 UT	4.15 JV
Total of 2,4' and 4,4'-DDD	µg/kg	95	73	76.8	0.086 T	144 T	G048	3.93	0.89 T	8.24 V	0.047 UT	144 T	G048	3.1	0.685 T	6.45 V
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg	95	82	86.3	0.047 T	144 T	G048	8.88	4.29 JV	19.6 V	0.047 T	144 T	G048	7.82	3.35 UA	19.3 V
Total of 2,4' and 4,4'-DDE	µg/kg	95	69	72.6	0.039 T	8.27 T	G059	1.45	0.88 T	5.08 V	0.034 UT	63 UT	G048	1.52	0.8 UT	4.99 V
Total of 2,4' and 4,4'-DDT	µg/kg	95	72	75.8	0.045 T	62 T	G017	4.74	2.35 V	14 V	0.045 T	78 UT	G048	4.23	1.64 T	13.7 V
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg	171	149	87.1	0.0097	3320	R20	183	31	845 V	0.0097	3320	R20	160	21	731 V
High Molecular Weight PAH	µg/kg	171	156	91.2	0.0734 T	29000 T	G783	1830	295 V	7880 V	0.0734 T	29000 JT	G783	1670	220 T	6900 V
Low Molecular Weight PAH	µg/kg	171	151	88.3	0.11 T	14400 T	G003	469	76.3 T	2360 V	0.0088 UT	14400 T	G003	415	48 T	2280 V
Naphthalene	µg/kg	171	132	77.2	0.57 J	5300 J	G003	102	10.5 V	172 V	0.0088 U	5300	G003	79.8	7	145 V
Phenanthrene	µg/kg	171	143	83.6	0.11	3900	G783	221	36 T	1240 V	0.0088 U	3900	G783	186	25	1040 V
Total BaPEq	µg/kg	171	153	89.5	0.004 T	4710 T	R20	256	43.6 T	1240 V	0.004 T	4710 T	R20	230	28.7 T	1100 V
Total cPAHs	µg/kg	171	153	89.5	0.058 T	16000 T	R20	962	150 T	4600 V	0.058 T	16000 T	R20	861	110 T	3850 V
Total PAHs	µg/kg	171	161	94.2	0.0734 T	40300 T	G003	2210	330 T	9100 A	0.0734 T	40300 T	G003	2080	310 T	8550 V

Table 5.6-3. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Surface Sediment, Downtown Reach (RM 11.8-15.3).

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location**	**Mean**	**Median[b]**	**95th[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location**	**Mean (half DL)**	**Median (half DL)[b]**	**95th (half DL)[b]**
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg	95	78	82.1	7.6 J	18000 J	GCRSP12E	418	75.5 V	623 V	7 U	18000	GCRSP12E	351	57	596 V
Butylbenzyl phthalate	µg/kg	95	29	31	3.6 J	580 J	G007	54	14	350 JV	2.6 U	580	G007	21	1.7 U	50 UV
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg	95	25	26	2.4 J	1800 J	G060	100	5.3 J	270 V	2.1 U	1800	G060	30	2.1 U	64 V
Hexachlorobenzene	µg/kg	95	35	36.8	0.096 J	1.9 J	G032	0.417	0.24	1.33 V	0.068 U	20 U	HC-SS02; HC-SS03; HC-SS04; HC-SS30	0.78	0.13 U	5 UV
Phenols																
Pentachlorophenol	µg/kg	95	11	12	3.2 NJ	890 NJ	G057	140	35 J	550 V	0.17 U	890	G057	26	2.7 U	130 UV
Petroleum																
Diesel-range Hydrocarbons	mg/kg	50	12	24	6.4 J	510 J	UG07	102	48.5 V	348 JV	0.064 U	510 J	UG07	34.8	13.3 UV	110 JV
Diesel-range Hydrocarbons (silica gel treated)	mg/kg	78	71	91	1.9 JT	600 JT	G003	75.9	40.8 JT	205 JV	1.3 U	600 J	G003	69.2	32.5 JV	195 JV
Residual-range Hydrocarbons	mg/kg	10	10	100	10 J	1800 J	UG07	385	225 JV	1250 JV	10 J	1800 J	UG07	385	225 JV	1250 JV
Residual-range Hydrocarbons (silica gel treated)	mg/kg	78	76	97.4	4.9 JT	1350 JT	G019	270	175 JV	925 JV	3.1 U	1350 JT	G019	263	170 JV	919 JV
Total Petroleum Hydrocarbons	mg/kg	50	31	62	0.17 A	2400 A	UG07	301	170 A	716 JV	0.17 A	2400 JT	UG07	201	98 JV	638 V
Total Petroleum Hydrocarbons (silica gel treated)	mg/kg	78	76	97.4	4.9 T	1680 T	G059	341	232 V	1040 V	3.1 UA	1680 T	G059	332	221 V	1020 V

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners whenever available and total Aroclors if not.

Reason codes for qualifiers:

A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

-- data not available.
BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TEQ - toxic equivalent concentration
TOC - total organic carbon

Table 5.6-4. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Subsurface Sediment, Downtown Reach (RM 11.8-15.3).

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location**	**Mean**	**Median[b]**	**95th[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location**	**Mean (half DL)**	**Median (half DL)[b]**	**95th (half DL)[b]**
Grain Size																
Fines	percent	71	71	100	0.31 T	89 T	WRS37	29.5	22.5 T	72.1 V	0.31 T	89 T	WRS37	29.5	22.5 T	72.1 V
Conventionals																
Total organic carbon	percent	62	59	95.2	0.06 J	15.8 J	C023	1.29	0.86 J	2.86 V	0.02 UJ	15.8	C023	1.23	0.815 JV	2.84 V
Metals																
Arsenic	mg/kg	93	83	89.2	0.8	7.5	WRS46	3.03	2.96	5.09 V	0.8	7.5	WRS46	2.84	2.88	5.08 V
Cadmium	mg/kg	93	75	80.6	0.05 J	3.6 J	WRS46	0.594	0.21	2.33 V	0.026 U	3.6	WRS46	0.569	0.311	2.22 V
Chromium	mg/kg	93	89	95.7	5.09	143	WRS06	24.3	21	46 V	5.09	143	WRS06	23.8	20.6	45 V
Copper	mg/kg	93	93	100	9.48	1050	WRS07	46.1	30.8	79.7 V	9.48	1050	WRS07	46.1	30.8	79.7 V
Lead	mg/kg	93	84	90.3	1.36	972	WRS07	52.9	19.2 V	170 JV	1.36	972	WRS07	48.5	16.1	158 JV
Mercury	mg/kg	93	78	83.9	0.007 J	3.46 J	C783	0.267	0.0765 V	1.3 V	0.007 J	3.46 JT	C783	0.238	0.09	1.18 V
Nickel	mg/kg	93	93	100	6.77	151	WRS06	23.3	20	35.8 JV	6.77	151	WRS06	23.3	20	35.8 JV
Zinc	mg/kg	93	93	100	34.6	2270	WRS07	130	85	242 V	34.6	2270	WRS07	130	85	242 V
Butyltins																
Tributyltin ion	µg/kg	61	20	32.8	0.55 JT	14000 JT	WRS06	1100	6 V	7640 V	0.0015 U	14000	WRS06	362	0.215 U	75
PCB Aroclors																
Aroclors	µg/kg	75	31	41.3	1.6 JT	610 JT	C022	89.5	41 T	389 V	0.73 UT	610 T	C022	46	8.5 T	156 V
Total PCBs[c]																
Total PCBs	µg/kg	75	31	41.3	1.6 JT	610 JT	C022	89.5	41 T	389 V	0.73 UT	610 T	C022	46	8.5 T	156 V
PCDD/Fs Homologs																
Total PCDD/F	pg/g	26	24	92.3	4.74 T	4590 T	C007	1260	928 V	3630 V	2.88 UT	4590 T	C007	1170	608 V	3550 V
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g	26	24	92.3	0.00601 T	12.8 T	C007	3.36	3.77 V	8.39 V	0.00601 T	12.8 T	C007	3.11	3.33 V	8.11 V
Pesticides																
Aldrin	µg/kg	63	5	7.94	0.079 J	1.7 J	C002	0.55	0.22 J	1.47 JV	0.055 U	1.7	C002	0.124	0.06 U	0.482 UJV
Dieldrin	µg/kg	63	2	3.17	0.29 J	7.45 J	C031	3.87	3.87 JV	7.09 JV	0.03 U	8.8 U	C022	0.329	0.1 U	0.497 UV
gamma-Hexachlorocyclohexane	µg/kg	63	15	23.8	0.12 J	1.5 J	C010	0.442	0.32 J	1.07 V	0.043 U	2.9 U	C783	0.216	0.11 U	0.869 JV
Total Chlordanes	µg/kg	63	30	47.6	0.12 JT	14 JT	C022	2.11	1.25 V	7.17 V	0.054 UT	14 T	C022	1.13	0.28 UT	4.3 JV
Total of 2,4' and 4,4'-DDD	µg/kg	63	29	46	0.16 T	40.5 T	C031	4.91	1.8 T	22.6 JV	0.047 UT	40.5 T	C031	2.38	0.165 UT	10.9 V
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg	63	36	57.1	0.052 T	301 T	C031	17.6	5.39 V	49.2 JV	0.052 T	301 T	C031	10.2	0.85 JT	30.1 V
Total of 2,4' and 4,4'-DDE	µg/kg	63	24	38.1	0.052 T	11 T	C783	3.03	2 V	8.88 V	0.034 UT	11 JT	C783	1.27	0.17 UT	6.45 V
Total of 2,4' and 4,4'-DDT	µg/kg	63	31	49.2	0.13 T	254 T	C031	13.5	2.7 T	32.7 V	0.1 UT	254 T	C031	6.73	0.325 UT	10.7 JV
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg	75	52	69.3	0.95 J	4300 J	C783	187	20 JV	649 V	0.14 U	4300	C783	130	10	475 V
High Molecular Weight PAH	µg/kg	75	63	84	0.28 T	45000 T	C783	1780	168 T	5990 V	0.28 T	45000 T	C783	1500	120 JT	5660 V
Low Molecular Weight PAH	µg/kg	75	66	88	0.25 JT	45000 JT	C783	1290	130 JV	2380 V	0.25 JT	45000 T	C783	1130	72.8 T	2330 V
Naphthalene	µg/kg	76	46	61	0.45 J	5400 J	C783	230	41 V	690 V	0.44 U	5400	C783	140	7.9 V	440 V
Phenanthrene	µg/kg	75	53	70.7	1.9 J	17000 J	C783	661	65	1700 V	0.4 U	17000	C783	467	25	1360 V
Total BaPEq	µg/kg	75	58	77.3	0.0003 JT	5760 JT	C783	230	27.5 JV	768 V	0.0003 JT	5760 T	C783	178	13.6 JT	674 V
Total cPAHs	µg/kg	75	58	77	0.28 JT	20000 JT	C783	840	110 V	2900 V	0.28 JT	20000 T	C783	650	58 JT	2500 V
Total PAHs	µg/kg	75	73	97.3	0.25 JT	90000 JT	C783	2700	273 T	7840 V	0.25 JT	90000 T	C783	2630	247 T	7830 V
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg	63	36	57.1	2.5 J	815 J	C031	103	37.5 JV	535 V	2.3 U	815 T	C031	69.6	18 JT	333 V
Butylbenzyl phthalate	µg/kg	63	6	9.5	3.3 J	33 J	C031	14	11 JV	30 V	1.7 U	160 U	C783	7.4	1.6 U	32 V

Table 5.6-4. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Subsurface Sediment, Downtown Reach (RM 11.8-15.3).

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location**	**Mean**	**Median[b]**	**95th[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location**	**Mean (half DL)**	**Median (half DL)[b]**	**95th (half DL)[b]**
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg	63	29	46	2.7 J	69 J	UC05-2	22	20	53 V	2.1 U	110 U	C783	14	5.5 U	55 UV
Hexachlorobenzene	µg/kg	63	9	14.3	0.14 J	0.64 J	C783	0.257	0.22	0.492 JV	0.068 U	1.2 U	C783	0.11	0.06 U	0.288 UV
Phenols																
Pentachlorophenol	µg/kg	51	3	5.9	0.24 J	26 J	UC05-2	9.7	3 J	24 JV	0.16 U	26 T	UC05-2	2	2.2 U	3.3 UV
Petroleum																
Diesel-range Hydrocarbons	mg/kg	49	17	34.7	1.9 J	1300 J	C783	221	5.1 JT	1060 JV	1.3 UT	1300 J	C783	82.2	5 U	649 JV
Diesel-range Hydrocarbons (silica gel treated)	mg/kg	32	27	84.4	4.65 JT	1200 JT	C783	309	170 J	914 JV	1.3 UT	1200 J	C783	261	145 JV	909 JV
Residual-range Hydrocarbons	mg/kg	25	13	52	3.6 JT	2700 JT	C783	503	36 JT	2220 JV	3.2 U	2700 J	C783	265	12.5 U	1790 JV
Residual-range Hydrocarbons (silica gel treated)	mg/kg	32	27	84.4	5.25 JT	2300 JT	C783	630	425 JT	1490 JV	3.1 UT	2300 J	C783	532	360 JV	1470 JV
Total Petroleum Hydrocarbons	mg/kg	49	43	87.8	0.92 JT	4000 JT	C783	509	112	2260 JV	0.92 JT	4000 JA	C783	447	91	2050 JV
Total Petroleum Hydrocarbons (silica gel treated)	mg/kg	32	26	81.3	9.9 T	3500 T	C783	974	575 V	2370 JV	3.1 UA	3500 JA	C783	792	505 V	2300 JV

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners whenever available and total Aroclors if not.

Reason codes for qualifiers:

A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

– data not available.
BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TOC - total organic carbon

Table 5.6-5. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Surface Sediment, Downtown Reach (RM 11.8-15.3), Excluding Zidell Data.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Grainsize																
Fines	percent	96	96	100	0.3 T	73.5 T	G015	18.1	13.2 V	58.7 V	0.3 T	73.5 T	G015	18.1	13.2 V	58.7 V
Conventionals																
Total organic carbon	percent	96	96	100	0.05 J	13.1	G045	1.13	0.85 V	2.48 V	0.05 J	13.1	G045	1.13	0.85 V	2.48 V
Metals																
Arsenic	mg/kg	95	91	95.8	1.07	126	G006	4.71	2.89 T	6 JV	1.07	126	G006	4.56	2.79	5.76 JV
Cadmium	mg/kg	95	90	94.7	0.03 J	1.7	G059	0.258	0.201 V	0.685 V	0.03 J	1.7	G059	0.251	0.192 J	0.684 V
Chromium	mg/kg	91	91	100	4.51	47.6	G049	19.1	18.6	35.4 V	4.51	47.6	G049	19.1	18.6 T	35.4 V
Copper	mg/kg	95	93	97.9	9.52	264	G006	32.6	25.1	72.2 JV	9.52	264	G006	32.1	24.8	71.8 JV
Lead	mg/kg	95	95	100	2.1	428 J	G006	46.7	21.9	150 JV	2.1	428 J	G006	46.7	21.9	150 JV
Mercury	mg/kg	95	91	95.8	0.007	4.06	G003	0.143	0.047	0.445 V	0.007	4.06	G003	0.141	0.048	0.439 V
Nickel	mg/kg	95	95	100	8.07	39.1	G049	17.7	18.2 J	27.7 V	8.07	39.1	G049	17.7	18.2 J	27.7 V
Zinc	mg/kg	95	95	100	29.9 J	858	G006	102	77.7 J	202 JV	29.9 J	858	G006	102	77.7 J	202 JV
Butyltins																
Tributyltin ion	µg/kg	81	31	38.3	0.4 J	1700 JT	G005	61.9	1.2 J	55.5 V	0.06 U	1700 JT	G005	23.8	0.055 U	28
PCB Aroclors																
Aroclors	µg/kg	95	70	73.7	1.3 T	4200 T	G048	119	22 V	229 V	0.73 UT	4200 T	G048	88.4	11.9 T	177 JV
PCB Congeners																
Total PCB Congeners	pg/g	5	5	100	6830 JT	912000 JT	GCRSP12E	321000	62500 JT	851000 JV	6830 JT	912000 JT	GCRSP12E	321000	62500 JT	851000 JV
Total PCBs[c]																
Total PCBs	µg/kg	95	70	73.7	1.3 T	4200 T	G048	137	22 V	569 V	0.73 UT	4200 T	G048	102	11.9 T	338 V
PCDD/Fs Homologs																
Total PCDD/F	pg/g	44	42	95.5	9.45 T	15400 T	G030	1200	461 V	3590 V	9.45 T	15400 T	G030	1150	422 V	3500 V
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g	44	42	95.5	0.0112 T	19.2 T	G030	2.9	1.54 V	9.89 V	0.0112 T	19.2 T	G030	2.76	1.23 V	9.78 V
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g	5	5	100	0.013 JT	4.51 T	GCA12E	1.68	0.421 JT	4.24 V	0.013 JT	4.51 T	GCA12E	1.68	0.421 JT	4.24 V
Pesticides																
Aldrin	µg/kg	91	18	19.8	0.0735 JT	0.7 NJ	UG08	0.273	0.215 JV	0.632 JV	0.055 U	4.1 U	G048	0.15	0.07 U	0.61 JV
Dieldrin	µg/kg	91	11	12.1	0.042 J	6.7	G058	0.855	0.16 J	3.9 V	0.03 U	6.7	G058	0.218	0.085 U	0.4 V
gamma-Hexachlorocyclohexane	µg/kg	91	11	12.1	0.059 J	1.4 J	G045	0.532	0.35 J	1.3 JV	0.043 U	2 U	PA03; PA04	0.164	0.08 U	0.925 UV
Total Chlordanes	µg/kg	91	72	79.1	0.039 T	15.9 T	G030	1.48	0.605 V	4.25 JV	0.039 T	15.9 T	G030	1.26	0.55 UT	4.15 JV
Total of 2,4' and 4,4'-DDD	µg/kg	95	73	76.8	0.086 T	144 T	G048	3.93	0.89 T	8.24 V	0.047 UT	144 T	G048	3.1	0.685 T	6.45 V
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg	95	82	86.3	0.047 T	144 T	G048	8.88	4.29 JV	19.6 V	0.047 T	144 T	G048	7.82	3.35 UA	19.3 V
Total of 2,4' and 4,4'-DDE	µg/kg	95	69	72.6	0.039 T	8.27 T	G059	1.45	0.88 T	5.08 V	0.034 UT	63 UT	G048	1.52	0.8 UT	4.99 V
Total of 2,4' and 4,4'-DDT	µg/kg	95	72	75.8	0.045 T	62 T	G017	4.74	2.35 V	14 V	0.045 T	78 UT	G048	4.23	1.64 T	13.7 V
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg	95	85	89.5	0.17 J	2800	G783	111	17	244 V	0.14 U	2800	G783	100	16	204 V
High Molecular Weight PAH	µg/kg	95	86	90.5	2.02 T	29000 JT	G783	1170	181 V	3420 V	0.64 UT	29000 JT	G783	1060	160 T	2690 V
Low Molecular Weight PAH	µg/kg	95	90	94.7	0.57 T	14400 T	G003	406	41 JV	1040 V	0.57 T	14400 T	G003	386	40.5 T	949 V
Naphthalene	µg/kg	95	87	91.6	0.57 J	5300	G003	122	6.3	137 V	0.57 J	5300	G003	113	6.3	133 V
Phenanthrene	µg/kg	95	82	86.3	0.95 J	3900	G783	171	20 V	489 V	0.75 U	3900	G783	149	17	469 V
Total BaPEq	µg/kg	95	85	89.5	0.194 JT	3660 JT	G783	152	24.7 JT	374 V	0.194 JT	3660 JT	G783	137	23.9 T	302 V
Total cPAHs	µg/kg	95	85	89	0.8 JT	12000 JT	G783	540	100 JT	1600 V	0.48 UT	12000 JT	G783	480	80 JT	1200 V
Total PAHs	µg/kg	95	91	95.8	0.57 T	40300 T	G003	1510	210 T	4870 V	0.57 T	40300 T	G003	1440	199 T	4710 V

Table 5.6-5. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Surface Sediment, Downtown Reach (RM 11.8-15.3), Excluding Zidell Data.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location**	**Mean**	**Median[b]**	**95th[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location**	**Mean (half DL)**	**Median (half DL)[b]**	**95th (half DL)[b]**
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg	95	78	82.1	7.6 J	18000	GCRSP12E	418	75.5 V	623 V	7 U	18000	GCRSP12E	351	57	596 V
Butylbenzyl phthalate	µg/kg	95	29	31	3.6 J	580	G007	54	14	350 JV	2.6 U	580	G007	21	1.7 U	50 UV
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg	95	25	26	2.4 J	1800	G060	100	5.3 J	270 V	2.1 U	1800	G060	30	2.1 U	64 V
Hexachlorobenzene	µg/kg	95	35	36.8	0.096 J	1.9	G032	0.417	0.24	1.33 V	0.068 U	20 U	HC-SS02; HC-SS03; HC-SS04; HC-SS30	0.78	0.13 U	5 UV
Phenols																
Pentachlorophenol	µg/kg	95	11	12	3.2 NJ	890	G057	140	35 J	550 V	0.17 U	890	G057	26	2.7 U	130 UV
Petroleum																
Diesel Range Hydrocarbons	mg/kg	14	9	64.3	6.4 J	510 J	UG07	116	41 J	392 JV	1.3 U	510 J	UG07	76.6	11 JV	318 JV
Diesel Range Hydrocarbons (silica gel treated)	mg/kg	78	71	91	1.9 JT	600 J	G003	75.9	40.8 JT	205 JV	1.3 U	600 J	G003	69.2	32.5 JV	195 JV
Residual Range Hydrocarbons	mg/kg	10	10	100	10 J	1800 J	UG07	385	225 JV	1250 JV	10 J	1800 J	UG07	385	225 JV	1250 JV
Residual Range Hydrocarbons (silica gel treated)	mg/kg	78	76	97.4	4.9 JT	1350 JT	G019	270	175 JV	925 JV	3.1 U	1350 JT	G019	263	170 JV	919 JV
Total Petroleum Hydrocarbons	mg/kg	14	13	92.9	10 JA	2400 JT	UG07	404	118	1430 JV	10 JA	2400 JT	UG07	376	117 V	1350 JV
Total Petroleum Hydrocarbons (silica gel treated)	mg/kg	78	76	97.4	4.9 T	1680 T	G059	341	232 V	1040 V	3.1 UA	1680 T	G059	332	221 V	1020 V

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners whenever available and total Aroclors if not.

Reason codes for qualifiers:

A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

-- data not available.
BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TEQ - toxic equivalent concentration
TOC - total organic carbon

Table 5.6-6. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Subsurface Sediment, Downtown Reach (RM 11.8-15.3), Excluding Zidell Data.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Grainsize																
Fines	percent	61	61	100	0.31 T	72.5 T	C011	28.2	22.5 T	70 T	0.31 T	72.5 T	C011	28.2	22.5 T	70 T
Conventionals																
Total organic carbon	percent	62	59	95.2	0.06 J	15.8	C023	1.29	0.86 T	2.86 V	0.02 UJ	15.8	C023	1.23	0.815 JV	2.84 V
Metals																
Arsenic	mg/kg	63	63	100	0.8	7.18	C011	2.89	2.79	5.09 V	0.8	7.18	C011	2.89	2.79	5.09 V
Cadmium	mg/kg	63	61	96.8	0.05 J	1.04 T	C031	0.237	0.175 T	0.596 T	0.026 U	1.04 T	C031	0.23	0.17	0.594 V
Chromium	mg/kg	63	59	93.7	5.09	36.6 J	UC07	18.4	17.3 J	31.3 JV	5.09	36.6 J	UC07	18	16.7 J	30.9 JV
Copper	mg/kg	63	63	100	9.48	72.1	C783	28.9	29 T	48.6 JV	9.48	72.1	C783	28.9	29 T	48.6 JV
Lead	mg/kg	63	63	100	1.36	371 JT	C031	43.4	16.1	171 JV	1.36	371 JT	C031	43.4	16.1	171 JV
Mercury	mg/kg	63	63	100	0.007 J	3.46 JT	C783	0.28	0.067	1.3 V	0.007 J	3.46 JT	C783	0.28	0.067	1.3 V
Nickel	mg/kg	63	63	100	6.77	36.9 J	UC08	19.6	18.9 J	31.5 JV	6.77	36.9 J	UC08	19.6	18.9 J	31.5 JV
Zinc	mg/kg	63	63	100	34.6	315	C783	92.7	72.2	178 V	34.6	315	C783	92.7	72.2	178 V
Butyltins																
Tributyltin ion	µg/kg	38	7	18.4	0.55 JT	23	C004	4.94	0.9 J	18.3 V	0.067 U	23	C004	0.977	0.0483 UV	2.28 JV
PCB Aroclors																
Aroclors	µg/kg	63	29	46	1.6 JT	610 T	C022	84.3	41 T	418 V	0.73 UT	610 T	C022	39.3	1.3 UT	138 V
Total PCBs[c]																
Total PCBs	µg/kg	63	29	46	1.6 JT	610 T	C022	84.3	41 T	418 V	0.73 UT	610 T	C022	39.3	1.3 UT	138 V
PCDD/Fs Homologs																
Total PCDD/F	pg/g	26	24	92.3	4.74 T	4590 T	C007	1260	928 V	3630 V	2.88 UT	4590 T	C007	1170	608 V	3550 V
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g	26	24	92.3	0.00601 T	12.8 T	C007	3.36	3.77 V	8.39 V	0.00601 T	12.8 T	C007	3.11	3.33 V	8.11 V
Pesticides																
Aldrin	µg/kg	63	5	7.94	0.079 J	1.7	C002	0.55	0.22 J	1.47 JV	0.055 U	1.7	C002	0.124	0.06 U	0.482 UJV
Dieldrin	µg/kg	63	2	3.17	0.29 J	7.45 T	C031	3.87	3.87 JV	7.09 JV	0.03 U	8.8 U	C022	0.329	0.1 U	0.497 UV
gamma-Hexachlorocyclohexane	µg/kg	63	15	23.8	0.12 J	1.5	C010	0.442	0.32 J	1.07 V	0.043 U	2.9 U	C783	0.216	0.11 U	0.869 JV
Total Chlordanes	µg/kg	63	30	47.6	0.12 JT	14 T	C022	2.11	1.25 V	7.17 V	0.054 UT	14 T	C022	1.13	0.28 UT	4.3 JV
Total of 2,4' and 4,4'-DDD	µg/kg	63	29	46	0.16 T	40.5 T	C031	4.91	1.8 T	22.6 JV	0.047 UT	40.5 T	C031	2.38	0.165 UT	10.9 V
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg	63	36	57.1	0.052 T	301 T	C031	17.6	5.39 V	49.2 JV	0.052 T	301 T	C031	10.2	0.85 JT	30.1 V
Total of 2,4' and 4,4'-DDE	µg/kg	63	24	38.1	0.052 T	11 JT	C783	3.03	2 V	8.88 V	0.034 UT	11 JT	C783	1.27	0.17 UT	6.45 V
Total of 2,4' and 4,4'-DDT	µg/kg	63	31	49.2	0.13 T	254 T	C031	13.5	2.7 T	32.7 V	0.1 UT	254 T	C031	6.73	0.325 UT	10.7 JV
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg	63	44	69.8	0.95 J	4300	C783	219	26 V	774 V	0.14 U	4300	C783	153	15	505 V
High Molecular Weight PAH	µg/kg	63	53	84.1	0.28 T	45000 T	C783	2100	251 T	8420 V	0.28 T	45000 T	C783	1770	168 T	5990 V
Low Molecular Weight PAH	µg/kg	63	61	96.8	0.25 JT	45000 T	C783	1390	130 JT	2400 T	0.25 JT	45000 T	C783	1340	129 T	2390 V
Naphthalene	µg/kg	64	43	67	0.45 J	5400	C783	240	43	720 V	0.44 U	5400	C783	160	12 V	510 V
Phenanthrene	µg/kg	63	49	77.8	1.9 J	17000	C783	711	76	1800 V	0.4 U	17000	C783	553	40	1480 V
Total BaPEq	µg/kg	63	49	77.8	0.0003 JT	5760 T	C783	269	32.4 T	933 V	0.0003 JT	5760 T	C783	209	20.5 JT	707 V
Total cPAHs	µg/kg	63	49	78	0.28 JT	20000 T	C783	980	120 JT	3600 V	0.28 JT	20000 T	C783	760	84 JT	2700 V
Total PAHs	µg/kg	63	63	100	0.25 JT	90000 T	C783	3110	353 T	7890 V	0.25 JT	90000 T	C783	3110	353 T	7890 V
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg	63	36	57.1	2.5 J	815 T	C031	103	37.5 JV	535 V	2.3 U	815 T	C031	69.6	18 JT	333 V
Butylbenzyl phthalate	µg/kg	63	6	9.5	3.3 J	33 T	C031	14	11 JV	30 V	1.7 U	160 U	C783	7.4	1.6 U	32 V

Table 5.6-6. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Subsurface Sediment, Downtown Reach (RM 11.8-15.3), Excluding Zidell Data.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location**	**Mean**	**Median[b]**	**95th[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location**	**Mean (half DL)**	**Median (half DL)[b]**	**95th (half DL)[b]**
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg	63	29	46	2.7 J	69 T	UC05-2	22	20	53 V	2.1 U	110 U	C783	14	5.5 U	55 UV
Hexachlorobenzene	µg/kg	63	9	14.3	0.14 J	0.64 J	C783	0.257	0.22	0.492 JV	0.068 U	1.2 U	C783	0.11	0.06 U	0.288 UV
Phenols																
Pentachlorophenol	µg/kg	51	3	5.9	0.24 J	26 T	UC05-2	9.7	3 J	24 JV	0.16 U	26 T	UC05-2	2	2.2 U	3.3 UV
Petroleum																
Diesel Range Hydrocarbons	mg/kg	25	15	60	1.9 J	1300 J	C783	233	2.8 J	1090 JV	1.3 UT	1300 J	C783	140	2.3 J	995 JV
Diesel Range Hydrocarbons (silica gel treated)	mg/kg	32	27	84.4	4.65 JT	1200 J	C783	309	170 J	914 JV	1.3 UT	1200 J	C783	261	145 JV	909 JV
Residual Range Hydrocarbons	mg/kg	25	13	52	3.6 JT	2700 J	C783	503	36 JT	2220 JV	3.2 U	2700 J	C783	265	12.5 U	1790 JV
Residual Range Hydrocarbons (silica gel treated)	mg/kg	32	27	84.4	5.25 JT	2300 J	C783	630	425 JT	1490 JV	3.1 UT	2300 J	C783	532	360 JV	1470 JV
Total Petroleum Hydrocarbons	mg/kg	25	19	76	0.92 JT	4000 JA	C783	530	14 JT	3010 JV	0.92 JT	4000 JA	C783	404	5.8 JT	2790 JV
Total Petroleum Hydrocarbons (silica gel treated)	mg/kg	32	26	81.3	9.9 T	3500 JA	C783	974	575 V	2370 JV	3.1 UA	3500 JA	C783	792	505 V	2300 JV

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners whenever available and total Aroclors if not.

Reason codes for qualifiers:

A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

– data not available.
BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TOC - total organic carbon

Table 5.6-7. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Surface Sediment, Downtown Reach (RM 11.8-15.3), Zidell Data Only.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location**	**Mean**	**Median[b]**	**95th[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location**	**Mean (half DL)**	**Median (half DL)[b]**	**95th (half DL)[b]**
Grainsize																
Fines	percent	20	20	100	0.5	89.4 T	WRS38	34.3	26.8 V	80.5 V	0.5	89.4 T	WRS38	34.3	26.8 V	80.5 V
Metals																
Arsenic	mg/kg	74	46	62.2	1.29	78 J	R47	11.2	4.98 JV	55.5 JV	1.29	78 J	R47	7.51	2.87 JV	34.7 JV
Cadmium	mg/kg	74	42	56.8	0.203 J	132 J	R12	6.54	2.95 V	10.3 JV	0.124 U	132 J	R12	3.86	0.791 JV	7.36 JV
Chromium	mg/kg	74	74	100	7.81 J	758 J	R50	69.5	30.7 JV	199 JV	7.81 J	758 J	R50	69.5	30.7 JV	199 JV
Copper	mg/kg	74	72	97.3	12	2150 J	R38	236	48 V	1230 JV	1.57 U	2150 J	R38	230	46.5 V	1210 JV
Lead	mg/kg	74	65	87.8	2.1	20800 J	R12	671	119	1550 JV	2.1	20800 J	R12	589	78.3 JV	1470 JV
Mercury	mg/kg	68	53	77.9	0.024	20.2 J	R50	0.94	0.243 J	2.77 JV	0.016 U	20.2 J	R50	0.746	0.139 JV	2.35 JV
Nickel	mg/kg	73	73	100	3.89 J	11500 J	R50	214	24.1 J	320 JV	3.89 J	11500 J	R50	214	24.1 J	320 JV
Zinc	mg/kg	74	74	100	35	6480 J	R50	680	226 JV	3100 JV	35	6480 J	R50	680	226 JV	3100 JV
Butyltins																
Tributyltin ion	µg/kg	44	14	31.8	2	1990	WRS20	178	8 V	820 V	0.0013 U	1990	WRS20	56.9	0.378 UV	159 V
PCB Aroclors																
Aroclors	µg/kg	75	50	66.7	5.1 T	19700 T	R50	1790	309 V	8490 V	0.24 UT	19700 T	R50	1210	100 UT	7220 V
Total PCBs[c]																
Total PCBs	µg/kg	75	50	66.7	5.1 T	19700 T	R50	1790	309 V	8490 V	0.24 UT	19700 T	R50	1210	100 T	7220 V
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg	76	64	84.2	0.0097	3320	R20	279	80.4 V	1160 V	0.0097	3320	R20	235	49.5 V	988 V
High Molecular Weight PAH	µg/kg	76	70	92.1	0.0734 T	28000 T	R20	2650	590 V	14900 V	0.0734 T	28000 T	R20	2440	510 V	12800 V
Low Molecular Weight PAH	µg/kg	76	61	80.3	0.11 T	4330 T	WRS16	562	136 T	3000 A	0.0088 UT	4330 T	WRS16	452	90.5 V	2560 V
Naphthalene	µg/kg	76	45	59.2	5	495	R22	62.9	35	198 V	0.0088 U	495	R22	38.5	8.5 V	149 V
Phenanthrene	µg/kg	76	61	80.3	0.11	2020	R47	287	62.7	1400	0.0088 U	2020	R47	231	46.5 V	1280 V
Total BaPEq	µg/kg	76	68	89.5	0.004 T	4710 T	R20	385	112 V	1710 V	0.004 T	4710 T	R20	345	71.4 V	1500 V
Total cPAHs	µg/kg	76	68	89.5	0.058 T	16000 T	R20	1490	375 V	7710 V	0.058 T	16000 T	R20	1330	290 V	6350 V
Total PAHs	µg/kg	76	70	92.1	0.0734 T	32000 A	R20	3130	680 V	16800 V	0.0734 T	32000 A	R20	2880	597 V	15300 V
Petroleum																
Diesel Range Hydrocarbons	mg/kg	36	3	8.33	44	74	WRS22	57	53 T	71.9 V	0.064 U	110 U	WRS28	18.6	13.5 UV	53.5 V
Total Petroleum Hydrocarbons	mg/kg	36	18	50	0.17 A	642	WRS07	226	172 V	635 V	0.17 A	642	WRS07	132	34 UV	532 V

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners whenever available and total Aroclors if not.

Reason codes for qualifiers:

A - Total value based on limited number of analytes.

J - The associated numerical value is an estimated quantity.

N - Presumptive evidence of presence of material; identification of the compound is not definitive.

T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.

U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.

V - Median or 95th percentile obtained through interpolation.

– data not available.

BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TOC - total organic carbon

Table 5.6-8. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Subsurface Sediment, Downtown Reach (RM 11.8-15.3), Zidell Data Only.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Maximum Location	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Maximum Location	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Grainsize																
Fines	percent	10	10	100	3.1	89 T	WRS37	37.4	25.1 V	87.7 V	3.1	89 T	WRS37	37.4	25.1 V	87.7 V
Metals																
Arsenic	mg/kg	30	20	67	2	7.5	WRS46	3.5	3 V	5.1 V	2	7.5	WRS46	2.7	3 V	4.6 V
Cadmium	mg/kg	30	14	46.7	1	3.6	WRS46	2.15	1.95 V	3.54 V	1	3.6	WRS46	1.28	0.7 UV	3.41 V
Chromium	mg/kg	30	30	100	14	143	WRS06	36	29.5 V	75.4 V	14	143	WRS06	36	29.5 V	75.4 V
Copper	mg/kg	30	30	100	14	1050	WRS07	82.1	40.5 V	169 V	14	1050	WRS07	82.1	40.5 V	169 V
Lead	mg/kg	30	21	70	2.9 T	972	WRS07	81.4	25	115	2.1 U	972	WRS07	59.4	15.5 V	113 V
Mercury	mg/kg	30	15	50	0.0255 T	1.3	WRS07	0.214	0.093	0.67 V	0.016 U	1.3	WRS07	0.148	0.1 UV	0.373 V
Nickel	mg/kg	30	30	100	16	151	WRS06	31.2	26 V	54.6 V	16	151	WRS06	31.2	26 V	54.6 V
Zinc	mg/kg	30	30	100	41	2270	WRS07	207	120 V	344 V	41	2270	WRS07	207	120 V	344 V
Butyltins																
Tributyltin ion	µg/kg	23	13	56.5	1	14000	WRS06	1700	11	9980 V	0.0015 U	14000	WRS06	960	3	6620 V
PCB Aroclors																
Aroclors	µg/kg	12	2	17	140 T	190 T	WRS28	170	170 V	190 V	110 UT	190 T	WRS28	81	65 UV	160 V
Total PCBs[c]																
Total PCBs	µg/kg	12	2	17	140 T	190 T	WRS28	170	170 V	190 V	110 UT	190 T	WRS28	81	65 UV	160 V
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg	12	8	67	4.8	24	WRS46	12	10 V	20 V	3.5 U	24	WRS46	8.4	8.7 V	18 V
High Molecular Weight PAH	µg/kg	12	10	83.3	4.8 T	309 T	WRS46	91.3	80.2 V	245 V	3.9 UT	309 T	WRS46	76.4	51.5 V	231 V
Low Molecular Weight PAH	µg/kg	12	5	41.7	5.9 T	208 T	WRS25	90.1	58.8 T	195 V	3.5 UT	208 T	WRS25	38.8	2.75 UV	172 V
Naphthalene	µg/kg	12	3	25	15	70	WRS25	37	25	66 V	3.5 U	70	WRS25	11	2.5 UV	45 V
Phenanthrene	µg/kg	12	4	33	19	60	WRS46	40	41 V	60 V	3.5 U	60	WRS46	15	2.5 UV	58 V
Total BaPEq	µg/kg	12	9	75	0.091 T	31 T	WRS22	14.2	12 T	30.6 V	0.091 T	31 T	WRS22	11.1	10 V	30.5 V
Total cPAHs	µg/kg	12	9	75	4.8 T	140 T	WRS46	50	41 T	120 V	3.5 UT	140 T	WRS46	38	26 V	110 V
Total PAHs	µg/kg	12	10	83.3	4.8 T	451 T	WRS46	136	97.8 V	417 V	3.9 UT	451 T	WRS46	114	54.4 V	409 V
Petroleum																
Diesel Range Hydrocarbons	mg/kg	24	2	8.3	98	160	WRS37	130	130 V	160 V	10 U	210 U	WRS31	22	5 UV	100 V
Total Petroleum Hydrocarbons	mg/kg	24	24	100	42 A	1630	WRS06	493	314 V	1390 V	42 A	1630	WRS06	493	314 V	1390 V

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners whenever available and total Aroclors if not.

Reason codes for qualifiers:

A - Total value based on limited number of analytes.

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U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.

V - Median or 95th percentile obtained through interpolation.

-- data not available.
BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TOC - total organic carbon

Table 5.6-9. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Surface Sediment, Downstream Reach (RM 0-1.9).

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location**	**Mean**	**Median[b]**	**95th[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location**	**Mean (half DL)**	**Median (half DL)[b]**	**95th (half DL)[b]**
Grain Size																
Fines	percent	21	21	100	2.13 T	95.4 T	DG03	53.3	59.9 T	94.5 T	2.13 T	95.4 T	DG03	53.3	59.9 T	94.5 T
Conventionals																
Total organic carbon	percent	25	25	100	0.13	2.63	DG07	1.16	1.15 T	2.44 V	0.13	2.63	DG07	1.16	1.15 T	2.44 V
Metals																
Arsenic	mg/kg	25	25	100	0.6 J	6.36 J	DG15	3.7	4.12	5.38 V	0.6 J	6.36	DG15	3.7	4.12	5.38 V
Cadmium	mg/kg	25	24	96	0.08	1.63	DG08	0.477	0.305 V	0.99 V	0.08	1.63	DG08	0.459	0.3 T	0.986 V
Chromium	mg/kg	25	25	100	10.4 J	42.2 J	DG07	24.7	27	36.7 V	10.4 J	42.2	DG07	24.7	27	36.7 V
Copper	mg/kg	25	25	100	8	45.7	DG07	25.5	27 T	41.4 V	8	45.7	DG07	25.5	27 T	41.4 V
Lead	mg/kg	25	25	100	3.23	27.7	DG15	11.7	12.1	21.6 V	3.23	27.7	DG15	11.7	12.1	21.6 V
Mercury	mg/kg	25	25	100	0.011 J	7.11 J	DG15	0.334	0.054 T	0.122 JV	0.011 J	7.11 J	DG15	0.334	0.054 T	0.122 JV
Nickel	mg/kg	25	25	100	9	31.7	DG03	21.4	21.6	31 V	9	31.7	DG03	21.4	21.6	31 V
Zinc	mg/kg	25	25	100	47.6	188	DG15	98.2	99.5 T	160 V	47.6	188	DG15	98.2	99.5 T	160 V
Butyltins																
Tributyltin ion	µg/kg	4	4	100	0.37 J	1.2 J	GSP01E	0.85	0.92 JV	1.2 JV	0.37 J	1.2 J	GSP01E	0.85	0.92 JV	1.2 JV
PCB Aroclors																
Aroclors	µg/kg	25	14	56	4 JT	410 JT	DG15	38	7.4 JV	160 V	1.4 UT	410 T	DG15	22	5 UT	29 JV
PCB Congeners																
Total PCB Congeners	pg/g	4	4	100	1030 JT	6560 JT	GCRSP01W	3450	3110 JV	6070 JV	1030 JT	6560 JT	GCRSP01W	3450	3110 JV	6070 JV
Total PCBs[c]																
Total PCBs	µg/kg	25	16	64	1.03 JT	410 JT	DG15	33.7	6.8 JV	127 V	1.03 JT	410 T	DG15	22.5	5 UT	29.2 JV
PCDD/Fs Homologs																
Total PCDD/F	pg/g	21	21	100	1.56 JT	1780 JT	GCRSP01W	232	77.4 JT	958 JT	1.56 JT	1780 JT	GCRSP01W	232	77.4 JT	958 JT
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g	21	21	100	0.0051 JT	2.62 JT	GCRSP01W	0.401	0.164 JT	1.74 JT	0.0051 JT	2.62 JT	GCRSP01W	0.401	0.164 JT	1.74 JT
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g	4	4	100	0.00266 JT	0.0153 JT	GCRSP01W	0.00813	0.00727 JV	0.0142 JV	0.00266 JT	0.0153 JT	GCRSP01W	0.00813	0.00727 JV	0.0142 JV
Pesticides																
Aldrin	µg/kg	25	3	12	0.37 J	0.4 J	WR-BC-07; WR-BC-08	0.39	0.4 J	0.4 JV	0.12 U	5.6 U	DG05	0.36	0.15 U	1 UJV
Dieldrin	µg/kg	25	1	4	0.069 J	0.069 J	GCA01E	0.069	0.069 J	0.069 J	0.03 U	5 U	DG05	0.475	0.265 U	1.08 UV
gamma-Hexachlorocyclohexane	µg/kg	25	1	4	2.4 NJT	2.4 NJT	GCRSP01W	2.4	2.4 NJT	2.4 NJT	0.062 U	2.6 U	DG05	0.435	0.15 U	1.24 UV
Total Chlordanes	µg/kg	25	15	60	0.067 JT	4.5 JT	DG15	0.812	0.29 JT	3.1 JV	0.067 JT	10 UA	WR-BC-01; WR-BC-07; WR-BC-08	1.41	0.44 JT	5 UV
Total of 2,4' and 4,4'-DDD	µg/kg	25	20	80	0.19 JT	10 JT	DG05	1.7	0.9 JV	7.6 V	0.19 JT	10 T	DG05	1.5	0.8 UT	6.5 V
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg	25	22	88	0.2 A	30 A	DG05	5.2	3.1 JV	15 JV	0.2 A	30 JT	DG05	4.7	3 A	14 JV
Total of 2,4' and 4,4'-DDE	µg/kg	25	20	80	0.16 JT	5.1 JT	DG08	1.5	1.3 V	3.9 JV	0.16 JT	5.1 JT	DG08	1.4	1.3 JT	3.4 JV
Total of 2,4' and 4,4'-DDT	µg/kg	25	17	68	0.089 JT	20 JT	DG05	3.06	2.3 JT	8.56 JV	0.089 JT	20 JT	DG05	2.29	1 UA	5.68 JV
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg	25	24	96	5	1400	DG05	98.7	27 V	220 JV	0.33 U	1400	DG05	94.7	23	214 JV
High Molecular Weight PAH	µg/kg	25	25	100	0.54 JT	13000 JT	DG05	864	240 T	1680 V	0.54 JT	13000 T	DG05	864	240 T	1680 V
Low Molecular Weight PAH	µg/kg	25	25	100	0.84 JT	4900 JT	DG05	248	36 JT	160 JV	0.84 JT	4900 JT	DG05	248	36 JT	160 JV
Naphthalene	µg/kg	25	20	80	0.84 J	370 J	DG05	27	8.1 JV	48 V	0.63 U	370	DG05	22	6.5	29 V
Phenanthrene	µg/kg	25	24	96	3.7	2700	DG05	140	21 V	100 V	0.49 U	2700	DG05	130	20	100 V
Total BaPEq	µg/kg	25	24	96	7 JT	1830 JT	DG05	132	37.7 V	304 JV	0.39 UT	1830 T	DG05	127	32.1 T	296 JV
Total cPAHs	µg/kg	25	24	96	29 JT	6300 JT	DG05	460	150 JV	1000 JV	0.71 UT	6300 T	DG05	440	130 T	980 JV
Total PAHs	µg/kg	25	25	100	1.4 JT	18000 JT	DG05	1120	273 T	1870 V	1.4 JT	18000 JT	DG05	1120	273 T	1870 V

Table 5.6-9. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Surface Sediment, Downstream Reach (RM 0-1.9).

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location**	**Mean**	**Median[b]**	**95th[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location**	**Mean (half DL)**	**Median (half DL)[b]**	**95th (half DL)[b]**
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg	21	10	48	7.1 J	170 J	DG07	64	57 V	140 V	7.1 J	170	DG07	38	19 J	110
Butylbenzyl phthalate	µg/kg	21	12	57	2.8 J	9.6 J	GCR01E-ALT	5.6	6 JV	8.4 JV	2.2 U	9.6	GCR01E-ALT	3.8	3.2 J	7.4 JT
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg	21	6	29	3 J	270 J	DG04	54	12 JV	210 JV	3 J	270	DG04	18	3.3 U	21 J
Hexachlorobenzene	µg/kg	21	1	4.76	0.19 JT	0.19 JT	GCRSP01W	0.19	0.19 JT	0.19 JT	0.068 U	5.7 U	DG07	0.472	0.075 U	2.55 U
Phenols																
Pentachlorophenol	µg/kg	21	13	62	0.47 NJ	4.1 NJ	DG07	1.2	0.77 J	3.1 JV	0.2 U	4.1 J	DG07	0.85	0.71 NJ	2.5 J
Petroleum																
Diesel-range Hydrocarbons	mg/kg	17	16	94	5 J	130 J	DG05	36	34 JV	94 JV	1.9 U	130 JT	DG05	34	33 JT	92 JV
Residual-range Hydrocarbons	mg/kg	17	16	94	36 J	440 J	DG03	220	230 JV	430 JV	4.3 U	440 J	DG03	210	210 JT	420 JV
Total Petroleum Hydrocarbons	mg/kg	17	17	100	1.3 JT	480 JT	DG03	240	240 JT	470 JV	1.3 JT	480 JT	DG03	240	240 JT	470 JV

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners whenever available and total Aroclors if not.

Reason codes for qualifiers:

A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

-- data not available.
BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TEQ - toxic equivalent concentration
TOC - total organic carbon

Table 5.6-10. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Subsurface Sediment, Downstream Reach (RM 0-1.9).

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location**	**Mean**	**Median[b]**	**95th[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location**	**Mean (half DL)**	**Median (half DL)[b]**	**95th (half DL)[b]**
Grain Size																
Fines	percent	17	17	100	2.47 T	96.4 T	DC03	69.6	79.9 T	91.8 V	2.47 T	96.4 T	DC03	69.6	79.9 T	91.8 V
Conventionals																
Total organic carbon	percent	28	28	100	0.05	2.78	DC03	0.969	0.935 V	2.13 V	0.05	2.78	DC03	0.969	0.935 V	2.13 V
Metals																
Arsenic	mg/kg	28	28	100	0.6 J	13.3 J	DC02	3.9	3.34 JV	8.36 V	0.6 J	13.3	DC02	3.9	3.34 JV	8.36 V
Cadmium	mg/kg	28	28	100	0.03	1.95	DC02	0.824	0.765 V	1.82 V	0.03	1.95	DC02	0.824	0.765 V	1.82 V
Chromium	mg/kg	28	28	100	6.6	33.8	DC03	22.6	24.6 V	31.9 V	6.6	33.8	DC03	22.6	24.6 V	31.9 V
Copper	mg/kg	28	28	100	8.9	43.6	DC03	25.1	26.4 V	38.7 V	8.9	43.6	DC03	25.1	26.4 V	38.7 V
Lead	mg/kg	28	28	100	1.2	37.7	DC02	15.7	14.9 V	32.5 V	1.2	37.7	DC02	15.7	14.9 V	32.5 V
Mercury	mg/kg	28	28	100	0.006 J	0.282 J	DC03	0.0915	0.0785 JV	0.25 JV	0.006 J	0.282 J	DC03	0.0915	0.0785 JV	0.25 JV
Nickel	mg/kg	28	28	100	4.4	20.4	DC07	15.9	16.5 JV	19.7 JV	4.4	20.4 J	DC07	15.9	16.5 JV	19.7 JV
Zinc	mg/kg	28	28	100	10.8	242	DC02	116	112 V	207 V	10.8	242	DC02	116	112 V	207 V
PCB Aroclors																
Aroclors	µg/kg	28	15	54	5 T	250 T	DC03	62	40 JT	170 JV	2.1 UT	250 T	DC03	34	6 V	130 JV
Total PCBs[c]																
Total PCBs	µg/kg	28	15	54	5 T	250 T	DC03	62	40 JT	170 JV	2.1 UT	250 T	DC03	34	6 V	130 JV
PCDD/Fs Homologs																
Total PCDD/F	pg/g	17	17	100	0.093 T	967 T	DC06	145	59.3 JT	488 V	0.093 T	967 T	DC06	145	59.3 JT	488 V
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g	17	16	94.1	0.00252 T	1.53 T	DC06	0.26	0.114 JV	0.862 JV	0.00252 T	1.53 JT	DC06	0.244	0.108 JT	0.817 JV
Pesticides																
Aldrin	µg/kg	28	3	11	0.2 J	2.8 J	DC03	1.2	0.49 J	2.6 JV	0.19 U	2.8 NJ	DC03	0.54	0.17 JV	1 UV
Dieldrin	µg/kg	28	0	0	--	--	--	--	--	--	0.36 U	5 U	WR-BC-03	0.59	0.24 UV	1.2 UV
gamma-Hexachlorocyclohexane	µg/kg	28	0	0	--	--	--	--	--	--	0.19 U	2 UJ	WR-BC-03; WR-GC-02; WR-GC-04; WR-GC-05; WR-GC-06	0.49	0.27 UV	1 UV
Total Chlordanes	µg/kg	28	5	18	0.75 JT	2.2 JT	DC03	1.5	1.6 JT	2.1 JV	0.45 UT	10 UA	WR-BC-03; WR-GC-02; WR-GC-04; WR-GC-05; WR-GC-06	2.2	0.93 JV	5 UV
Total of 2,4' and 4,4'-DDD	µg/kg	28	18	64	0.28 JT	29 JT	DC03	9.1	7.1 JV	26 V	0.26 UT	29 T	DC03	6.1	2.8 JV	22 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg	28	19	67.9	0.28 JT	80 JT	DC03	18.3	12 A	65.6 JV	0.28 JT	80 JT	DC03	12.6	4.7 JV	54.6 JV
Total of 2,4' and 4,4'-DDE	µg/kg	28	18	64	0.23 JT	15 JT	DC03	5.1	4.1 V	12 JV	0.23 JT	15 JT	DC03	3.5	1.4 JV	11 JV
Total of 2,4' and 4,4'-DDT	µg/kg	28	11	39	0.28 JT	36 JT	DC03	8.4	2.7 T	32 JV	0.17 UT	36 T	DC03	3.9	1 UV	22 JV
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg	28	25	89.3	0.9 J	770 J	DC03	76.1	39	169 JV	0.32 U	770	DC03	68	35 V	160 JV
High Molecular Weight PAH	µg/kg	28	26	92.9	0.64 JT	11000 JT	DC03	840	405 V	1570 V	0.64 JT	11000 T	DC03	780	350 V	1550 V
Low Molecular Weight PAH	µg/kg	28	28	100	0.49 JT	12000 JT	DC03	555	58.5 V	793 V	0.49 JT	12000 T	DC03	555	58.5 V	793 V
Naphthalene	µg/kg	29	21	72	0.6 J	330 J	DC03	43	13	270	0.49 U	330	DC03	32	9.3	180 V
Phenanthrene	µg/kg	28	28	100	0.49 J	7200 J	DC03	320	25 V	350 V	0.49 J	7200	DC03	320	25 V	350 V
Total BaPEq	µg/kg	28	25	89.3	1.15 JT	1030 JT	DC03	102	54.5 T	225 JV	0.38 UT	1030 T	DC03	91.1	45.7 V	215 JV
Total cPAHs	µg/kg	28	25	89	4.9 JT	4200 JT	DC03	390	200 T	790 JV	0.7 UT	4200 T	DC03	340	180 V	760 JV
Total PAHs	µg/kg	28	28	100	0.49 JT	23000 JT	DC03	1340	435 V	2330 JV	0.49 JT	23000 T	DC03	1340	435 V	2330 JV
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg	19	17	89	3.1 J	56 J	B501-C1	13	8.3 J	42 V	2.5 U	56	B501-C1	13	8.3 J	41 V
Butylbenzyl phthalate	µg/kg	19	0	0	--	--	--	--	--	--	1.9 U	20 U	B501-C1; B501-C2	2.3	1.3 U	10 UV

Table 5.6-10. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Subsurface Sediment, Downstream Reach (RM 0-1.9).

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location**	**Mean**	**Median[b]**	**95th[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location**	**Mean (half DL)**	**Median (half DL)[b]**	**95th (half DL)[b]**
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg	19	0	0	--	--	--	--	--	--	4.7 U	6.4 U	DC03	2.9	3 U	3.2 UV
Hexachlorobenzene	µg/kg	19	1	5.26	0.42 J	0.42 J	DC06	0.42	0.42 J	0.42 J	0.096 U	20 U	B501-C1; B501-C2	1.24	0.065 U	10 UV
Phenols																
Pentachlorophenol	µg/kg	19	8	42	0.5 J	6 J	DC02	1.4	0.54 JV	4.6 JV	0.17 U	61 U	B501-C1; B501-C2	3.9	0.5 J	31 UV
Petroleum																
Diesel-range Hydrocarbons	mg/kg	17	17	100	2 JT	370 JT	DC03	62	35 J	270 JV	2 JT	370 J	DC03	62	35 J	270 JV
Residual-range Hydrocarbons	mg/kg	17	14	82	7.4 JT	680 JT	DC03	220	150 JV	670 JV	7.4 JT	680 J	DC03	180	130 J	660 JV
Total Petroleum Hydrocarbons	mg/kg	17	17	100	2.4 JT	1100 JT	DC03	250	170 JT	970 JV	2.4 JT	1100 JT	DC03	250	170 JT	970 JV

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners whenever available and total Aroclors if not.

Reason codes for qualifiers:

A - Total value based on limited number of analytes.

J - The associated numerical value is an estimated quantity.

N - Presumptive evidence of presence of material; identification of the compound is not definitive.

T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.

U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.

V - Median or 95th percentile obtained through interpolation.

-- data not available.

BaPEq - benzo(a)pyrene equivalent

cPAH - carcinogenic polycyclic aromatic hydrocarbon

DL - detection limit

ND - non-detect

PAH - polycyclic aromatic hydrocarbon

PCB - polychlorinated biphenyl

PCDD/Fs - dioxins/furans

TOC - total organic carbon

Table 5.6-11. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Surface Sediment, Multnomah Channel.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location**	**Mean**	**Median[b]**	**95th[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location**	**Mean (half DL)**	**Median (half DL)[b]**	**95th (half DL)[b]**
Grain Size																
Fines	percent	17	17	100	0.89 T	56.8 T	MG007	16.7	11.8 T	52.5 V	0.89 T	56.8 T	MG007	16.7	11.8 T	52.5 V
Conventionals																
Total organic carbon	percent	17	17	100	0.2	2.33	MG009	0.911	0.44	2.21 V	0.2	2.33	MG009	0.911	0.44	2.21 V
Metals																
Arsenic	mg/kg	17	17	100	2.32	6.5	G045	3.92	3.65	5.45 V	2.32	6.5 T	G045	3.92	3.65	5.45 V
Cadmium	mg/kg	17	16	94.1	0.084	0.635	B007	0.193	0.132 V	0.444 V	0.025 U	0.635	B007	0.182	0.132 T	0.431 V
Chromium	mg/kg	17	17	100	8.99	28.1	MG0021	19.4	20.1	27.2 V	8.99	28.1	MG0021	19.4	20.1	27.2 V
Copper	mg/kg	17	17	100	4.37	34.9	MG0021	19.1	17.7	32.8 V	4.37	34.9	MG0021	19.1	17.7	32.8 V
Lead	mg/kg	17	17	100	2.2	30.2	G045	10.6	8.35	23.2 JV	2.2	30.2 JT	G045	10.6	8.35	23.2 JV
Mercury	mg/kg	17	17	100	0.007 J	0.179 J	MG0021	0.0502	0.033	0.173 V	0.007 J	0.179	MG0021	0.0502	0.033	0.173 V
Nickel	mg/kg	17	17	100	4.75	22.7	MG0021	18.3	19.2	22.3 V	4.75	22.7	MG0021	18.3	19.2	22.3 V
Zinc	mg/kg	17	17	100	52.1	138	MG0021	85.5	78.8	113 V	52.1	138	MG0021	85.5	78.8	113 V
Butyltins																
Tributyltin ion	µg/kg	1	1	100	2.3	2.3	BT003	2.3	2.3	2.3	2.3	2.3	BT003	2.3	2.3	2.3
PCB Aroclors																
Aroclors	µg/kg	17	9	52.9	2.4 JT	54 JT	MG0021	16.1	11.1 JT	42.5 JV	1.3 UT	54 JT	MG0021	9.05	2.4 JT	31 JV
PCB Congeners																
Total PCB Congeners	pg/g	1	1	100	7080 T	7080 T	BT003	7080	7080 T	7080 T	7080 T	7080 T	BT003	7080	7080 T	7080 T
Total PCBs[c]																
Total PCBs	µg/kg	17	9	52.9	2.4 JT	54 JT	MG0021	16.5	11.1 JT	42.5 JV	1.3 UT	54 JT	MG0021	9.27	2.4 JT	31 JV
PCDD/Fs Homologs																
Total PCDD/F	pg/g	2	2	100	35.4 JT	175 JT	BT003	105	105 JV	168 JV	35.4 JT	175 T	BT003	105	105 JV	168 JV
PCDD/Fs																
Dioxin/furan TCDD toxicity equivalent (ND = 0)	pg/g	2	2	100	0.179 JT	0.385 JT	BT003	0.282	0.282 JV	0.375 JV	0.179 JT	0.385 JT	BT003	0.282	0.282 JV	0.375 JV
Total PCB TEQ																
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	pg/g	2	2	100	0.104 T	0.193 T	BT003	0.149	0.149 JV	0.189 JV	0.104 T	0.193 JT	BT003	0.149	0.149 JV	0.189 JV
Pesticides																
Aldrin	µg/kg	17	7	41.2	0.017 JT	0.65 JT	MG007	0.239	0.112 NJ	0.599 V	0.017 JT	0.65	MG007	0.134	0.06 U	0.514 V
Dieldrin	µg/kg	17	7	41.2	0.043 NJ	0.97 NJ	MG001	0.339	0.33	0.802 JV	0.03 U	0.97 J	MG001	0.186	0.1 U	0.522 JV
gamma-Hexachlorocyclohexane	µg/kg	17	5	29.4	0.00469 JT	1.4 JT	MG0022	0.625	0.671 NJ	1.27 JV	0.00469 JT	1.4 JT	MG0022	0.25	0.0409 UJ	0.872 JV
Total Chlordanes	µg/kg	17	10	58.8	0.056 JT	2.8 JT	MG009	0.596	0.294 JV	2.08 JV	0.0429 UT	2.8 JT	MG009	0.366	0.071 JT	1.52 JV
Total of 2,4' and 4,4'-DDD	µg/kg	17	17	100	0.17 JT	11 JT	MG0021	2.57	1.86 JT	5.84 JV	0.17 JT	11 JT	MG0021	2.57	1.86 JT	5.84 JV
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg	17	17	100	0.17 JT	32 JT	MG0021	5.5	3.55 JT	14 JV	0.17 JT	32 JT	MG0021	5.5	3.55 JT	14 JV
Total of 2,4' and 4,4'-DDE	µg/kg	17	15	88.2	0.156 T	9 T	MG0021	1.39	0.714 JT	4.24 JV	0.12 UT	9 JT	MG0021	1.24	0.68 JT	3.56 JV
Total of 2,4' and 4,4'-DDT	µg/kg	17	15	88.2	0.211 JT	12 JT	MG0021	1.93	0.629 JT	5.91 JV	0.18 UT	12 T	MG0021	1.71	0.604 JT	5.04 JV
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg	17	17	100	59	690	MG0022	260	230	570 V	59	690 T	MG0022	260	230	570 V
High Molecular Weight PAH	µg/kg	17	17	100	384 T	5800 T	MG0022	2000	1800 T	4840 V	384 T	5800 T	MG0022	2000	1800 T	4840 V
Low Molecular Weight PAH	µg/kg	17	17	100	25.6 JT	960 JT	MG0021; MG0022	280	132 T	960 V	25.6 JT	960 T	MG0021; MG0022	280	132 T	960 V
Naphthalene	µg/kg	17	14	82	4.5	140	MG0022	41	21 V	130 V	4.3 U	140 T	MG0022	34	17	130 V
Phenanthrene	µg/kg	17	17	100	8.3	480	MG0022	130	74	450 V	8.3	480 T	MG0022	130	74	450 V
Total BaPEq	µg/kg	17	17	100	78.3 T	913 T	MG0022	350	307 T	763 V	78.3 T	913 T	MG0022	350	307 T	763 V
Total cPAHs	µg/kg	17	17	100	260 T	3100 T	MG0022	1200	1000 T	2500 V	260 T	3100 T	MG0022	1200	1000 T	2500 V
Total PAHs	µg/kg	17	17	100	415 JT	6800 JT	MG0022	2280	2000 T	5760 V	415 JT	6800 T	MG0022	2280	2000 T	5760 V

Table 5.6-11. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Surface Sediment, Multnomah Channel.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location**	**Mean**	**Median[b]**	**95th[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location**	**Mean (half DL)**	**Median (half DL)[b]**	**95th (half DL)[b]**
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg	17	9	53	9.6 J	140 J	MG007	58	56 J	120 V	2.3 U	140	MG007	33	14 J	93 V
Butylbenzyl phthalate	µg/kg	17	2	12	9 J	38 J	MG0022	24	24 JV	37 JV	2.1 U	38 JT	MG0022	4.7	1.6 U	15 JV
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg	17	6	35	2.7 J	6 J	MG001	4.6	4.9 JV	5.9 JV	2.1 U	11 U	MG0021; MG0022; MG008	3.8	3 U	5.6 JV
Hexachlorobenzene	µg/kg	17	9	52.9	0.122 JT	0.871 JT	G048	0.394	0.33 JT	0.771 JV	0.0187 U	2.9 U	G045; G049	0.389	0.26 J	1.45 UV
Phenols																
Pentachlorophenol	µg/kg	17	3	18	0.5 NJ	1.6 NJ	MG004	0.95	0.75 J	1.5 JV	0.19 U	5.8 U	MG0021	0.67	0.31 U	2.2 UV
Petroleum																
Diesel-range Hydrocarbons	mg/kg	11	11	100	7.2 J	1500 J	MG009	196	62 J	845 JV	7.2 J	1500 J	MG009	196	62 J	845 JV
Diesel-range Hydrocarbons (silica gel treated)	mg/kg	10	9	90	4.09 JT	1200 JT	MG009	179	35 J	784 JV	4.09 JT	1200 J	MG009	162	31.8 JV	732 JV
Residual-range Hydrocarbons	mg/kg	11	10	90.9	18.5 JT	550 JT	MG009	265	255 JV	505 JV	18.5 JT	550 J	MG009	242	150 J	500 JV
Residual-range Hydrocarbons (silica gel treated)	mg/kg	10	8	80	12.4 JT	260 JT	MG0021	129	115 JV	255 JV	12.4 JT	260 J	MG0021	105	77 JV	253 JV
Total Petroleum Hydrocarbons	mg/kg	11	11	100	7.2 JA	2050 JA	MG009	437	202 JA	1350 JV	7.2 JA	2050 JA	MG009	437	202 JA	1350 JV
Total Petroleum Hydrocarbons (silica gel treated)	mg/kg	10	9	90	4.1 JA	1400 JA	MG009	294	145 JA	1010 JV	4.1 JA	1400 JA	MG009	266	107 JV	959 JV

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners whenever available and total Aroclors if not.

Reason codes for qualifiers:

A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

-- data not available.
BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TEQ - toxic equivalent concentration
TOC - total organic carbon

Table 5.6-12. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Subsurface Sediment, Multnomah Channel.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location**	**Mean**	**Median[b]**	**95th[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location**	**Mean (half DL)**	**Median (half DL)[b]**	**95th (half DL)[b]**
Grain Size																
Fines	percent	11	11	100	31.7 JT	88.5 JT	MC008	61.5	64.9 T	79.8 V	31.7 JT	88.5 T	MC008	61.5	64.9 T	79.8 V
Conventionals																
Total organic carbon	percent	14	14	100	0.07 T	5.06 T	MC009	1.15	0.985 V	2.65 V	0.07 T	5.06	MC009	1.15	0.985 V	2.65 V
Metals																
Arsenic	mg/kg	14	14	100	1.73	3.55	MC009	2.31	2.09 V	3.12 V	1.73	3.55	MC009	2.31	2.09 V	3.12 V
Cadmium	mg/kg	14	14	100	0.083 J	0.46 J	MC009	0.153	0.128 V	0.275 V	0.083 J	0.46	MC009	0.153	0.128 V	0.275 V
Chromium	mg/kg	14	14	100	9.41	27.6	MC009	21.3	22.3 V	26.3 V	9.41	27.6	MC009	21.3	22.3 V	26.3 V
Copper	mg/kg	14	14	100	14	41.8	MC009	28.2	28.8 V	36.3 V	14	41.8	MC009	28.2	28.8 V	36.3 V
Lead	mg/kg	14	14	100	4.42	31.2	MC009	8.29	5.76 V	18.9 V	4.42	31.2	MC009	8.29	5.76 V	18.9 V
Mercury	mg/kg	14	13	92.9	0.027	0.145	MC002	0.0567	0.038	0.123 V	0.006 UJ	0.145	MC002	0.0529	0.0365 V	0.121 V
Nickel	mg/kg	14	14	100	12.5	28.2	MC006	23.2	24.3 V	28.1 V	12.5	28.2 T	MC006	23.2	24.3 V	28.1 V
Zinc	mg/kg	14	14	100	48.8	194	MC009	75.6	67 V	123 V	48.8	194	MC009	75.6	67 V	123 V
PCB Aroclors																
Aroclors	µg/kg	14	2	14.3	14.1 JT	213 JT	MC009	114	114 JV	203 JV	1 UT	213 T	MC009	16.7	0.65 UV	83.7 JV
Total PCBs[c]																
Total PCBs	µg/kg	14	2	14.3	14.1 JT	213 JT	MC009	114	114 JV	203 JV	1 UT	213 T	MC009	16.7	0.65 UV	83.7 JV
Pesticides																
Aldrin	µg/kg	14	0	0	--	--	--	--	--	--	0.12 U	0.67 U	MC009	0.08	0.06 UV	0.16 UV
Dieldrin	µg/kg	14	10	71.4	0.068 NJ	0.27 NJ	MC002	0.129	0.11 JV	0.225 JV	0.03 U	1.2 U	MC009	0.138	0.103 JV	0.386 JV
gamma-Hexachlorocyclohexane	µg/kg	14	1	7.14	0.59 J	0.59 J	MC009	0.59	0.59 J	0.59 J	0.062 U	0.59 J	MC009	0.0875	0.031 UV	0.304 JV
Total Chlordanes	µg/kg	14	2	14.3	0.038 JT	0.039 JT	MC008	0.0385	0.0385 JV	0.039 JV	0.038 JT	6.1 UT	MC009	0.294	0.0435 UV	1.43 UV
Total of 2,4' and 4,4'-DDD	µg/kg	14	2	14	2.1 T	14 T	MC009	8.1	8.1 V	13 V	0.16 UT	14 T	MC009	1.2	0.08 UV	6.3 V
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg	14	4	28.6	0.066 JT	90 JT	MC0012	30.8	16.5 JV	81.5 JV	0.066 JT	90 JT	MC0012	8.86	0.09 UV	53 JV
Total of 2,4' and 4,4'-DDE	µg/kg	14	4	28.6	0.066 JT	12 JT	MC009	3.24	0.454 JV	10.3 JV	0.046 UT	12 JT	MC009	0.948	0.023 UV	4.73 JV
Total of 2,4' and 4,4'-DDT	µg/kg	14	2	14	7.4 T	87 T	MC0012	47	47 V	83 V	0.18 UT	87 T	MC0012	6.8	0.09 UV	35 V
Polycyclic Aromatic Hydrocarbons																
Benzo(a)pyrene	µg/kg	14	8	57	0.39 J	720 J	MC009	170	68 V	600 V	0.14 U	720	MC009	100	0.54 JV	510 V
High Molecular Weight PAH	µg/kg	14	11	79	0.5 JT	6400 JT	MC009	1100	170 T	5100 V	0.5 JT	6400 T	MC009	900	4.8 JV	4700 V
Low Molecular Weight PAH	µg/kg	14	9	64	0.52 JT	2000 JT	MC009	390	160 T	1500 V	0.52 JT	2000 T	MC009	250	2.2 JV	1100 V
Naphthalene	µg/kg	14	7	50	1.2 J	130 J	MC009	39	28	110 V	0.44 U	130	MC009	20	0.75 JV	82 V
Phenanthrene	µg/kg	14	8	57	1.4 J	1100 J	MC009	250	110 V	860 V	0.75 U	1100	MC009	140	1.4 JV	660 V
Total BaPEq	µg/kg	14	10	71.4	0.019 JT	972 JT	MC009	186	44.9 V	762 V	0.019 JT	972 T	MC009	133	0.691 JV	668 V
Total cPAHs	µg/kg	14	10	71	0.19 JT	3400 JT	MC009	640	170 V	2600 V	0.19 JT	3400 T	MC009	450	2.8 JV	2200 V
Total PAHs	µg/kg	14	11	79	0.76 JT	8300 JT	MC009	1500	190 JT	6400 V	0.75 UT	8300 T	MC009	1100	6.9 JV	5800 V
Phthalates																
Bis(2-ethylhexyl) phthalate	µg/kg	14	6	43	7.6 J	110 J	MC009	29	14 JV	87 JV	7 U	110 J	MC009	15	5.6 JV	50 JV
Butylbenzyl phthalate	µg/kg	14	1	7.1	3.8 J	3.8 J	MC008	3.8	3.8 J	3.8 J	3.2 U	36 U	MC009	3.3	1.6 UV	11 UV

Table 5.6-12. Summary Statistics for Grain Size, TOC, and Indicator Chemicals in Subsurface Sediment, Multnomah Channel.

					Detected Concentrations						Detected and Nondetected Concentrations					
Analyte	**Units**	**# Analyzed**	**# Detected**	**% Detected**	**Minimum[a]**	**Maximum[a]**	**Maximum Location**	**Mean**	**Median[b]**	**95th[b]**	**Minimum (full DL)[a]**	**Maximum (full DL)[a]**	**Maximum Location**	**Mean (half DL)**	**Median (half DL)[b]**	**95th (half DL)[b]**
Semivolatile Organic Compounds																
Benzyl alcohol	µg/kg	14	10	71	3.3 J	9.7 J	MC002	5.9	6.1 JV	8.4 JV	2.1 U	24 U	MC009	5.3	5.5 JV	11 JV
Hexachlorobenzene	µg/kg	14	1	7.14	0.76 J	0.76 J	MC009	0.76	0.76 J	0.76 J	0.068 U	0.76 J	MC009	0.0916	0.034 UV	0.331 JV
Phenols																
Pentachlorophenol	µg/kg	14	0	0	--	--	--	--	--	--	0.23 U	9.7 U	MC009	0.64	0.13 UV	2.4 UV
Petroleum																
Diesel-range Hydrocarbons	mg/kg	14	13	92.9	1.9 J	600 J	MC009	58.9	7.2 J	267 JV	1.4 U	600 J	MC009	54.8	6.95 JV	239 JV
Diesel-range Hydrocarbons (silica gel treated)	mg/kg	14	5	36	1.6 J	450 J	MC009	100	22 J	370 JV	1.4 U	450 J	MC009	39	2.8 UV	180 JV
Residual-range Hydrocarbons	mg/kg	14	13	92.9	5.2 J	810 J	MC009	112	50 J	402 JV	3.3 U	810 J	MC009	104	48 JV	368 JV
Residual-range Hydrocarbons (silica gel treated)	mg/kg	14	5	36	3.7 J	440 J	MC009	110	30 T	370 JV	3.3 U	440 J	MC009	45	7.7 JV	210 JV
Total Petroleum Hydrocarbons	mg/kg	14	13	92.9	7.1 JA	1410 JA	MC009	171	55.2 JA	669 JV	3.3 UA	1410 JA	MC009	159	53.1 JV	607 JV
Total Petroleum Hydrocarbons (silica gel treated)	mg/kg	14	6	42.9	5.3 JA	890 JA	MC009	180	26 JV	697 JV	3.3 UA	890 JA	MC009	81.1	8.5 UV	388 JV

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners whenever available and total Aroclors if not.

Reason codes for qualifiers:

A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

-- data not available.
BaPEq - benzo(a)pyrene equivalent
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
ND - non-detect
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TOC - total organic carbon

Table 5.6-13. Summary Statistics for Surface Sediments (Detected and Nondetected Values) in the Upstream and Downstream Reaches and the Study Area and for Surface and Subsurface Sediments (Combined) in the Upstream Study Area Depositional Cores.

	Total PCBs[a] (µg/kg)					TCDD TEQ (pg/g)					Total DDx (µg/kg)					Total PAHs (µg/kg)				
Location	**# Analyzed**	**# Detected**	**Mean**	**Median[b]**	**95th[b]**	**# Analyzed**	**# Detected**	**Mean**	**Median[b]**	**95th[b]**	**# Analyzed**	**# Detected**	**Mean**	**Median[b]**	**95th[b]**	**# Analyzed**	**# Detected**	**Mean**	**Median[b]**	**95th[b]**
Upriver Reach (RM 15.3-28.4). %Fines: Mean = 30.5, Median = 28.3 %TOC: Mean = 1.13, Median = 1.18	81	42	5.69	2.9 JT	19.5 UT	49	48	0.309	0.111 A	1.15 V	81	56	1.71	1.2 T	3.35 UA	78	66	92.4	58.9 JV	196 JV
Downtown Reach (RM 11.8-15.3). %Fines: Mean = 20.9, Median = 13.5 %TOC: Mean = 1.13, Median = 0.85	170	120	589	49.9 V	3240 V	44	42	2.76	1.23 V	9.78 V	95	82	7.82	3.35 UA	19.3 V	171	161	2080	310 T	8550 V
Downtown Reach Without Zidell. %Fines: Mean = 18.1, Median = 13.2 %TOC: Mean = 1.13, Median = 0.85	95	70	102	11.9 T	338 V	44	42	2.76	1.23 V	9.78 V	95	82	7.82	3.35 UA	19.3 V	95	91	1440	199 T	4710 V
Zidell Only (RM 13.5-14) %Fines: Mean = 34.3, Median = 26.8	75	50	1210	100 T	7220 V			Not Analyzed					Not Analyzed			76	70	2880	597 V	15300 V
Study Area (RM 1.9-11.8). %Fines: Mean = 51.1, Median = 61.3 %TOC: Mean = 1.8, Median = 1.75	1191	940	176	19.5 UT	553 JV	217	217	74.1	1.28 JT	43.2 JV	1210	1082	249	6.5 JV	376 JV	1603	1582	28100	1120 T	65600 JV
Downstream Reach (RM 0-1.9). %Fines: Mean = 53.3, Median = 59.9 %TOC: Mean = 1.16, Median = 1.15	25	16	22.5	5 UT	29.2 JV	21	21	0.401	0.164 JT	1.74 JT	25	22	4.7	3 A	14 JV	25	25	1120	273 T	1870 V
Multnomah Channel. %Fines: Mean = 16.7, Median = 11.8 %TOC: Mean = 0.911, Median =0.44	17	9	9.27	2.4 JT	31 JV	2	2	0.282	0.282 JV	0.375 JV	17	17	5.5	3.55 JT	14 JV	17	17	2280	2000 T	5760 V
Study Area Depositional Cores																				
All Upstream Depositional Area Core - Combined	29	10	6.9	3.6	19.8	29	29	0.536	0.175	1.62	29	29	3.86	3.8	6.42	29	29	229	210	434
RC02 - Borrow Pit @ RM 10.9	10	7	12.4	15	21.6	10	10	0.503	0.14	1.59	10	10	3.89	4.05	6.27	10	10	236	150	465
RC01 - Borrow Pit @ RM 10.5	9	1	3.41	2.3	na	9	9	0.969	0.387	3.72	9	9	3.03	3.5	5.34	9	9	212	170	422
RC483 - Shoal @ RM 9.5	10	2	4.51	3.28	11	10	10	0.181	0.103	0.5	10	10	4.59	4.15	8.43	10	10	238	255	270

Notes:

[a] Total PCBs are total PCB congeners whenever available regardless of their qualification, except for LWG beach samples where preference is given to Aroclors.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

Reason codes for qualifiers:

A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

DDx - total of 2,4' and 4,4'-DDD, -DDE, -DDT
PAH - polycyclic aromatic hydrocarbons
PCB - polychlorinated biphenyl
RM - river mile
TEQ - toxic equivalent concentration
TOC - total organic carbon

Table 5.6-14. RI Data Set Sediment Sample Inventory in Outlying Reaches.

Reach	River Mile	Sediment	Sample ID
Downstream (RM <1)	0.0	surface sediment	WLR0797WRBC01WRA
Downstream (RM <1)	0.0	surface sediment	WLR0797WRBC01WRBC01
Downstream (RM <1)	0.1	subsurface sediment	WLR0797WRGC02RGC02A
Downstream (RM <1)	0.1	subsurface sediment	WLR0797WRGC02RGC02B
Downstream (RM <1)	0.4	subsurface sediment	WLR0797WRBC03WRBC03
Downstream (RM <1)	0.7	subsurface sediment	LW3-DC07-B
Downstream (RM <1)	0.7	subsurface sediment	LW3-DC07-C
Downstream (RM <1)	0.7	subsurface sediment	LW3-DC07-D
Downstream (RM <1)	0.7	subsurface sediment	LW3-DC07-E
Downstream (RM <1)	0.7	subsurface sediment	WLR0797WRGC04RGC04A
Downstream (RM <1)	0.7	subsurface sediment	WLR0797WRGC04RGC04B
Downstream (RM <1)	0.7	subsurface sediment	WLR0797WRGC05RGC05A
Downstream (RM <1)	0.7	subsurface sediment	WLR0797WRGC05RGC05B
Downstream (RM <1)	0.7	surface sediment	LW3-DG19
Downstream (RM <1)	0.9	subsurface sediment	WLCT5K99B50101B50101
Downstream (RM <1)	0.9	subsurface sediment	WLCT5K99B501C1B501C1
Downstream (RM <1)	0.9	subsurface sediment	WLR0797WRGC06RGC06A
Downstream (RM <1)	0.9	subsurface sediment	WLR0797WRGC06RGC06B
Downstream (RM <1)	0.9	surface sediment	LW3-DG12
Downstream (RM 1 - 2)	1.0	subsurface sediment	WLCT0F01T50101T5011A
Downstream (RM 1 - 2)	1.0	subsurface sediment	WLCT0F01T50102T5012A
Downstream (RM 1 - 2)	1.0	subsurface sediment	WLCT0I98B501C1B501C1
Downstream (RM 1 - 2)	1.0	subsurface sediment	WLCT5K99B50102B50102
Downstream (RM 1 - 2)	1.0	subsurface sediment	WLCT5K99B50103argeC1
Downstream (RM 1 - 2)	1.0	surface sediment	LW3-DG11
Downstream (RM 1 - 2)	1.0	surface sediment	LW3-DG11-2
Downstream (RM 1 - 2)	1.0	surface sediment	LW3-GCR01E-ALT
Downstream (RM 1 - 2)	1.1	subsurface sediment	LW3-DC06-B
Downstream (RM 1 - 2)	1.1	subsurface sediment	LW3-DC06-C
Downstream (RM 1 - 2)	1.1	subsurface sediment	LW3-DC06-D
Downstream (RM 1 - 2)	1.1	subsurface sediment	WLCT0I98B501C2B501C2
Downstream (RM 1 - 2)	1.1	surface sediment	LW3-DG18
Downstream (RM 1 - 2)	1.2	subsurface sediment	LW3-DC04-B
Downstream (RM 1 - 2)	1.2	subsurface sediment	LW3-DC04-C
Downstream (RM 1 - 2)	1.2	subsurface sediment	LW3-DC04-D
Downstream (RM 1 - 2)	1.2	subsurface sediment	LW3-DC05-B
Downstream (RM 1 - 2)	1.2	subsurface sediment	LW3-DC05-C
Downstream (RM 1 - 2)	1.2	surface sediment	LW3-DG10
Downstream (RM 1 - 2)	1.2	surface sediment	LW3-DG16
Downstream (RM 1 - 2)	1.2	surface sediment	LW3-DG17
Downstream (RM 1 - 2)	1.3	surface sediment	LW3-GSP01E
Downstream (RM 1 - 2)	1.4	subsurface sediment	LW3-DC03-B
Downstream (RM 1 - 2)	1.4	subsurface sediment	LW3-DC03-C
Downstream (RM 1 - 2)	1.4	subsurface sediment	LW3-DC03-D
Downstream (RM 1 - 2)	1.4	subsurface sediment	WLCT5K99B503C1B503C1
Downstream (RM 1 - 2)	1.4	surface sediment	LW3-DG09
Downstream (RM 1 - 2)	1.4	surface sediment	LW3-DG15
Downstream (RM 1 - 2)	1.4	surface sediment	LW3-GCRSP01W-1
Downstream (RM 1 - 2)	1.5	subsurface sediment	LW3-DC02-B
Downstream (RM 1 - 2)	1.5	subsurface sediment	LW3-DC02-C
Downstream (RM 1 - 2)	1.5	subsurface sediment	LW3-DC02-D
Downstream (RM 1 - 2)	1.5	surface sediment	LW3-DG07
Downstream (RM 1 - 2)	1.5	surface sediment	LW3-DG08
Downstream (RM 1 - 2)	1.5	surface sediment	LW3-DG14

Table 5.6-14. RI Data Set Sediment Sample Inventory in Outlying Reaches.

Reach	River Mile	Sediment	Sample ID
Downstream (RM 1 - 2)	1.5	surface sediment	LW3-GCA01E-C00
Downstream (RM 1 - 2)	1.6	surface sediment	LW3-DG05
Downstream (RM 1 - 2)	1.6	surface sediment	LW3-DG06
Downstream (RM 1 - 2)	1.6	surface sediment	WLR0797WRBC07WRBC07
Downstream (RM 1 - 2)	1.7	surface sediment	LW3-DG03
Downstream (RM 1 - 2)	1.7	surface sediment	LW3-DG04
Downstream (RM 1 - 2)	1.8	surface sediment	WLR0797WRBC08WRBC08
Multnomah Channel	0.0	subsurface sediment	LW3-MC001-B1
Multnomah Channel	0.0	subsurface sediment	LW3-MC001-B2
Multnomah Channel	0.0	subsurface sediment	LW3-MC001-C1
Multnomah Channel	0.0	subsurface sediment	LW3-MC001-C2
Multnomah Channel	0.0	subsurface sediment	LW3-MC002-B
Multnomah Channel	0.0	subsurface sediment	LW3-MC002-C
Multnomah Channel	0.0	subsurface sediment	LW3-MC002-D
Multnomah Channel	2.9	subsurface sediment	LW3-MC006-B
Multnomah Channel	2.9	subsurface sediment	LW3-MC006-C
Multnomah Channel	2.9	subsurface sediment	LW3-MC006-D
Multnomah Channel	2.9	subsurface sediment	LW3-MC008-B
Multnomah Channel	2.9	subsurface sediment	LW3-MC008-C
Multnomah Channel	2.9	subsurface sediment	LW3-MC008-D
Multnomah Channel	2.9	subsurface sediment	LW3-MC009-B
Multnomah Channel	2.9	surface sediment	LW2-G045
Multnomah Channel	2.9	surface sediment	LW2-G047
Multnomah Channel	2.9	surface sediment	LW2-G048
Multnomah Channel	2.9	surface sediment	LW2-GBT003
Multnomah Channel	2.9	surface sediment	LW3-MG001
Multnomah Channel	2.9	surface sediment	LW3-MG002-1
Multnomah Channel	2.9	surface sediment	LW3-MG002-2
Multnomah Channel	2.9	surface sediment	LW3-MG003
Multnomah Channel	2.9	surface sediment	LW3-MG004
Multnomah Channel	2.9	surface sediment	LW3-MG006
Multnomah Channel	2.9	surface sediment	LW3-MG007
Multnomah Channel	2.9	surface sediment	LW3-MG008
Multnomah Channel	2.9	surface sediment	LW3-MG009
Multnomah Channel	2.9	surface sediment	LW3-MG010
Multnomah Channel	3.0	surface sediment	LW2-B007
Multnomah Channel	3.0	surface sediment	LW2-G049
Multnomah Channel	3.1	surface sediment	LW2-G054
Downtown (RM 11.8 - 12.2)	11.9	subsurface sediment	LW3-UC04-B
Downtown (RM 11.8 - 12.2)	11.9	subsurface sediment	LW3-UC04-C
Downtown (RM 11.8 - 12.2)	11.9	subsurface sediment	LW3-UC04-D
Downtown (RM 11.8 - 12.2)	11.9	surface sediment	LW3-GCA12W-C00
Downtown (RM 11.8 - 12.2)	11.9	surface sediment	LW3-GSP12W-ALT
Downtown (RM 11.8 - 12.2)	11.9	surface sediment	LW3-UG04-1
Downtown (RM 11.8 - 12.2)	11.9	surface sediment	LW3-UG04-2
Downtown (RM 11.8 - 12.2)	12	surface sediment	WLLASE08DPSCG066
Downtown (RM 11.8 - 12.2)	12.0	subsurface sediment	LW3-UC05-B1
Downtown (RM 11.8 - 12.2)	12.0	subsurface sediment	LW3-UC05-B2
Downtown (RM 11.8 - 12.2)	12.0	subsurface sediment	LW3-UC05-C1
Downtown (RM 11.8 - 12.2)	12.0	subsurface sediment	LW3-UC05-C2
Downtown (RM 11.8 - 12.2)	12.0	subsurface sediment	LW3-UC05-D1
Downtown (RM 11.8 - 12.2)	12.0	subsurface sediment	LW3-UC05-D2
Downtown (RM 11.8 - 12.2)	12.0	subsurface sediment	LW3-UC06-B
Downtown (RM 11.8 - 12.2)	12.0	subsurface sediment	LW3-UC06-C

Table 5.6-14. RI Data Set Sediment Sample Inventory in Outlying Reaches.

Reach	River Mile	Sediment	Sample ID
Downtown (RM 11.8 - 12.2)	12.0	subsurface sediment	LW3-UC06-D
Downtown (RM 11.8 - 12.2)	12.0	subsurface sediment	LW3-UC06-E
Downtown (RM 11.8 - 12.2)	12.0	surface sediment	LW3-GCR12W
Downtown (RM 11.8 - 12.2)	12.0	surface sediment	LW3-UG05
Downtown (RM 11.8 - 12.2)	12.0	surface sediment	LW3-UG06
Downtown (RM 11.8 - 12.2)	12.1	subsurface sediment	LW3-C782-B
Downtown (RM 11.8 - 12.2)	12.1	subsurface sediment	LW3-C782-C
Downtown (RM 11.8 - 12.2)	12.1	subsurface sediment	LW3-UC07-B
Downtown (RM 11.8 - 12.2)	12.1	subsurface sediment	LW3-UC07-C
Downtown (RM 11.8 - 12.2)	12.1	subsurface sediment	LW3-UC07-D
Downtown (RM 11.8 - 12.2)	12.1	subsurface sediment	LW3-UC07-E
Downtown (RM 11.8 - 12.2)	12.1	subsurface sediment	LW3-UC08-B
Downtown (RM 11.8 - 12.2)	12.1	subsurface sediment	LW3-UC08-C
Downtown (RM 11.8 - 12.2)	12.1	subsurface sediment	LW3-UC08-D
Downtown (RM 11.8 - 12.2)	12.1	subsurface sediment	WLLASE08DPSCC031C
Downtown (RM 11.8 - 12.2)	12.1	surface sediment	LW3-C782-A
Downtown (RM 11.8 - 12.2)	12.1	surface sediment	LW3-G780
Downtown (RM 11.8 - 12.2)	12.1	surface sediment	LW3-G781
Downtown (RM 11.8 - 12.2)	12.1	surface sediment	LW3-GCA12E-C00-R
Downtown (RM 11.8 - 12.2)	12.1	surface sediment	LW3-GCRSP12E
Downtown (RM 11.8 - 12.2)	12.1	surface sediment	LW3-UG07
Downtown (RM 11.8 - 12.2)	12.1	surface sediment	LW3-UG08
Downtown (RM 11.8 - 12.2)	12.1	surface sediment	WLLASE08DPSCG063
Downtown (RM 11.8 - 12.2)	12.1	surface sediment	WLLASE08DPSCG064
Downtown (RM 11.8 - 12.2)	12.1	surface sediment	WLLASE08DPSCG065
Downtown (RM 11.8 - 12.2)	12.1	surface sediment	WLLASE08DPSCG067
Downtown (RM 11.8 - 12.2)	12.2	subsurface sediment	LW3-C783-B
Downtown (RM 11.8 - 12.2)	12.2	subsurface sediment	LW3-C783-C
Downtown (RM 11.8 - 12.2)	12.2	subsurface sediment	LW3-C783-D
Downtown (RM 11.8 - 12.2)	12.2	subsurface sediment	LW3-C783-E
Downtown (RM 11.8 - 12.2)	12.2	surface sediment	LW3-G783
Downtown (RM 12.3 - 15.3)	12.3	subsurface sediment	WLLASE08DPSCC001B
Downtown (RM 12.3 - 15.3)	12.3	surface sediment	WLLASE08DPSCG001
Downtown (RM 12.3 - 15.3)	12.3	surface sediment	WLLASE08DPSCG002
Downtown (RM 12.3 - 15.3)	12.3	surface sediment	WLLASE08DPSCG060
Downtown (RM 12.3 - 15.3)	12.3	surface sediment	WLLASE08DPSCG061
Downtown (RM 12.3 - 15.3)	12.3	surface sediment	WLLASE08DPSCG062
Downtown (RM 12.3 - 15.3)	12.4	surface sediment	WLLASE08DPSCG059
Downtown (RM 12.3 - 15.3)	12.4	surface sediment	WLLASE08DPSCG068
Downtown (RM 12.3 - 15.3)	12.5	subsurface sediment	WLLASE08DPSCC030B
Downtown (RM 12.3 - 15.3)	12.5	surface sediment	WLLASE08DPSCG003
Downtown (RM 12.3 - 15.3)	12.5	surface sediment	WLLASE08DPSCG057
Downtown (RM 12.3 - 15.3)	12.5	surface sediment	WLLASE08DPSCG058
Downtown (RM 12.3 - 15.3)	12.6	subsurface sediment	WLLASE08DPSCC029C
Downtown (RM 12.3 - 15.3)	12.6	surface sediment	WLLASE08DPSCG055
Downtown (RM 12.3 - 15.3)	12.6	surface sediment	WLLASE08DPSCG056
Downtown (RM 12.3 - 15.3)	12.7	subsurface sediment	WLLASE08DPSCC028B
Downtown (RM 12.3 - 15.3)	12.7	surface sediment	WLLASE08DPSCG053
Downtown (RM 12.3 - 15.3)	12.7	surface sediment	WLLASE08DPSCG054
Downtown (RM 12.3 - 15.3)	12.8	subsurface sediment	WLLASE08DPSCC027B
Downtown (RM 12.3 - 15.3)	12.8	surface sediment	WLLASE08DPSCG005
Downtown (RM 12.3 - 15.3)	12.8	surface sediment	WLLASE08DPSCG051
Downtown (RM 12.3 - 15.3)	12.8	surface sediment	WLLASE08DPSCG052
Downtown (RM 12.3 - 15.3)	12.9	surface sediment	WLLASE08DPSCG006

Table 5.6-14. RI Data Set Sediment Sample Inventory in Outlying Reaches.

Reach	River Mile	Sediment	Sample ID
Downtown (RM 12.3 - 15.3)	13	subsurface sediment	WLLASE08DPSCC002B
Downtown (RM 12.3 - 15.3)	13	subsurface sediment	WLLASE08DPSCC026B
Downtown (RM 12.3 - 15.3)	13	surface sediment	WLLASE08DPSCG007
Downtown (RM 12.3 - 15.3)	13	surface sediment	WLLASE08DPSCG008
Downtown (RM 12.3 - 15.3)	13	surface sediment	WLLASE08DPSCG049
Downtown (RM 12.3 - 15.3)	13	surface sediment	WLLASE08DPSCG050
Downtown (RM 12.3 - 15.3)	13	surface sediment	WLLASE08DPSCG069
Downtown (RM 12.3 - 15.3)	13.1	subsurface sediment	WLLASE08DPSCC025D
Downtown (RM 12.3 - 15.3)	13.1	surface sediment	WLLASE08DPSCG047
Downtown (RM 12.3 - 15.3)	13.1	surface sediment	WLLASE08DPSCG048
Downtown (RM 12.3 - 15.3)	13.2	subsurface sediment	WLLASE08DPSCC003E
Downtown (RM 12.3 - 15.3)	13.2	surface sediment	WLLASE08DPSCG009
Downtown (RM 12.3 - 15.3)	13.2	surface sediment	WLLASE08DPSCG046
Downtown (RM 12.3 - 15.3)	13.3	subsurface sediment	WLLASE08DPSCC004B
Downtown (RM 12.3 - 15.3)	13.3	subsurface sediment	WLLASE08DPSCC023B
Downtown (RM 12.3 - 15.3)	13.3	subsurface sediment	WLLASE08DPSCC024C
Downtown (RM 12.3 - 15.3)	13.3	surface sediment	WLLASE08DPSCG010
Downtown (RM 12.3 - 15.3)	13.3	surface sediment	WLLASE08DPSCG011
Downtown (RM 12.3 - 15.3)	13.3	surface sediment	WLLASE08DPSCG043
Downtown (RM 12.3 - 15.3)	13.3	surface sediment	WLLASE08DPSCG044
Downtown (RM 12.3 - 15.3)	13.3	surface sediment	WLLASE08DPSCG045
Downtown (RM 12.3 - 15.3)	13.4	subsurface sediment	WLLASE08DPSCC005D
Downtown (RM 12.3 - 15.3)	13.4	subsurface sediment	WLLASE08DPSCC006D
Downtown (RM 12.3 - 15.3)	13.4	subsurface sediment	WLLASE08DPSCC033B
Downtown (RM 12.3 - 15.3)	13.4	surface sediment	WLCZDI00WRS45WRS45-1
Downtown (RM 12.3 - 15.3)	13.4	surface sediment	WLCZDI00WRS47WRS47
Downtown (RM 12.3 - 15.3)	13.4	surface sediment	WLCZDI00WRS53WRS53
Downtown (RM 12.3 - 15.3)	13.4	surface sediment	WLLASE08DPSCG012
Downtown (RM 12.3 - 15.3)	13.4	surface sediment	WLLASE08DPSCG013
Downtown (RM 12.3 - 15.3)	13.4	surface sediment	WLLASE08DPSCG014
Downtown (RM 12.3 - 15.3)	13.4	surface sediment	WLLASE08DPSCG015
Downtown (RM 12.3 - 15.3)	13.4	surface sediment	WLLASE08DPSCG042
Downtown (RM 12.3 - 15.3)	13.4	surface sediment	WLLASE08DPSCG085
Downtown (RM 12.3 - 15.3)	13.5	subsurface sediment	WLCZDI00WRS40WRS40-2
Downtown (RM 12.3 - 15.3)	13.5	subsurface sediment	WLLASE08DPSCC022C
Downtown (RM 12.3 - 15.3)	13.5	surface sediment	WLCZDH04T202R05
Downtown (RM 12.3 - 15.3)	13.5	surface sediment	WLCZDI00WRS11WRS11-1
Downtown (RM 12.3 - 15.3)	13.5	surface sediment	WLCZDI00WRS38WRS38-1
Downtown (RM 12.3 - 15.3)	13.5	surface sediment	WLCZDI00WRS39WRS39-1
Downtown (RM 12.3 - 15.3)	13.5	surface sediment	WLCZDI00WRS40WRS40-1
Downtown (RM 12.3 - 15.3)	13.5	surface sediment	WLCZDI00WRS41WRS44-1
Downtown (RM 12.3 - 15.3)	13.5	surface sediment	WLCZDI00WRS48WRS48
Downtown (RM 12.3 - 15.3)	13.5	surface sediment	WLCZDI00WRS54WRS54
Downtown (RM 12.3 - 15.3)	13.5	surface sediment	WLLASE08DPSCG039
Downtown (RM 12.3 - 15.3)	13.5	surface sediment	WLLASE08DPSCG041
Downtown (RM 12.3 - 15.3)	13.5	surface sediment	WLLASE08DPSCG070
Downtown (RM 12.3 - 15.3)	13.6	subsurface sediment	WLCZDI00WRS05WRS05-2
Downtown (RM 12.3 - 15.3)	13.6	subsurface sediment	WLCZDI00WRS05WRS05-3
Downtown (RM 12.3 - 15.3)	13.6	subsurface sediment	WLCZDI00WRS05WRS05-4
Downtown (RM 12.3 - 15.3)	13.6	subsurface sediment	WLCZDI00WRS05WRS05-5
Downtown (RM 12.3 - 15.3)	13.6	subsurface sediment	WLCZDI00WRS34WRS34-2
Downtown (RM 12.3 - 15.3)	13.6	subsurface sediment	WLCZDI00WRS34WRS34-3
Downtown (RM 12.3 - 15.3)	13.6	subsurface sediment	WLCZDI00WRS37WRS37-2
Downtown (RM 12.3 - 15.3)	13.6	subsurface sediment	WLCZDI00WRS37WRS37-3

Table 5.6-14. RI Data Set Sediment Sample Inventory in Outlying Reaches.

Reach	River Mile	Sediment	Sample ID
Downtown (RM 12.3 - 15.3)	13.6	subsurface sediment	WLLASE08DPSCC021C
Downtown (RM 12.3 - 15.3)	13.6	surface sediment	WLCZDH04T204R09
Downtown (RM 12.3 - 15.3)	13.6	surface sediment	WLCZDH04T206R12
Downtown (RM 12.3 - 15.3)	13.6	surface sediment	WLCZDH04T207R14
Downtown (RM 12.3 - 15.3)	13.6	surface sediment	WLCZDH04T208R16
Downtown (RM 12.3 - 15.3)	13.6	surface sediment	WLCZDI00WRS05WRS05-1
Downtown (RM 12.3 - 15.3)	13.6	surface sediment	WLCZDI00WRS12WRS12-1
Downtown (RM 12.3 - 15.3)	13.6	surface sediment	WLCZDI00WRS13WRS13-1
Downtown (RM 12.3 - 15.3)	13.6	surface sediment	WLCZDI00WRS34WRS34-1
Downtown (RM 12.3 - 15.3)	13.6	surface sediment	WLCZDI00WRS35WRS35-1
Downtown (RM 12.3 - 15.3)	13.6	surface sediment	WLCZDI00WRS36WRS36-1
Downtown (RM 12.3 - 15.3)	13.6	surface sediment	WLCZDI00WRS37WRS37-1
Downtown (RM 12.3 - 15.3)	13.6	surface sediment	WLCZDI00WRS49WRS49
Downtown (RM 12.3 - 15.3)	13.6	surface sediment	WLCZDI00WRS50WRS50
Downtown (RM 12.3 - 15.3)	13.6	surface sediment	WLLASE08DPSCG036
Downtown (RM 12.3 - 15.3)	13.6	surface sediment	WLLASE08DPSCG037
Downtown (RM 12.3 - 15.3)	13.6	surface sediment	WLLASE08DPSCG038
Downtown (RM 12.3 - 15.3)	13.6	surface sediment	WLLASE08DPSCG040
Downtown (RM 12.3 - 15.3)	13.6	surface sediment	WLLASE08DPSCG071
Downtown (RM 12.3 - 15.3)	13.6	surface sediment	WLLASE08DPSCG072
Downtown (RM 12.3 - 15.3)	13.7	subsurface sediment	WLCZDI00WRS06WRS06-2
Downtown (RM 12.3 - 15.3)	13.7	subsurface sediment	WLCZDI00WRS06WRS06-3
Downtown (RM 12.3 - 15.3)	13.7	subsurface sediment	WLCZDI00WRS06WRS06-4
Downtown (RM 12.3 - 15.3)	13.7	subsurface sediment	WLCZDI00WRS06WRS06-5
Downtown (RM 12.3 - 15.3)	13.7	subsurface sediment	WLCZDI00WRS31WRS31-2
Downtown (RM 12.3 - 15.3)	13.7	subsurface sediment	WLCZDI00WRS31WRS31-3
Downtown (RM 12.3 - 15.3)	13.7	surface sediment	WLCZDH04T210R50
Downtown (RM 12.3 - 15.3)	13.7	surface sediment	WLCZDH04T211R20
Downtown (RM 12.3 - 15.3)	13.7	surface sediment	WLCZDH04T212R22
Downtown (RM 12.3 - 15.3)	13.7	surface sediment	WLCZDH04T213R24
Downtown (RM 12.3 - 15.3)	13.7	surface sediment	WLCZDH04T214R26
Downtown (RM 12.3 - 15.3)	13.7	surface sediment	WLCZDH04T214R27
Downtown (RM 12.3 - 15.3)	13.7	surface sediment	WLCZDI00WRS06WRS06-1
Downtown (RM 12.3 - 15.3)	13.7	surface sediment	WLCZDI00WRS15WRS15-1
Downtown (RM 12.3 - 15.3)	13.7	surface sediment	WLCZDI00WRS16WRS16-1
Downtown (RM 12.3 - 15.3)	13.7	surface sediment	WLCZDI00WRS31WRS31-1
Downtown (RM 12.3 - 15.3)	13.7	surface sediment	WLCZDI00WRS32WRS32-1
Downtown (RM 12.3 - 15.3)	13.7	surface sediment	WLCZDI00WRS33WRS33-1
Downtown (RM 12.3 - 15.3)	13.7	surface sediment	WLCZDI00WRS51WRS51
Downtown (RM 12.3 - 15.3)	13.7	surface sediment	WLLASE08DPSCG073
Downtown (RM 12.3 - 15.3)	13.7	surface sediment	WLLASE08DPSCG074
Downtown (RM 12.3 - 15.3)	13.8	subsurface sediment	WLCZDI00WRS07WRS07-2
Downtown (RM 12.3 - 15.3)	13.8	subsurface sediment	WLCZDI00WRS07WRS07-3
Downtown (RM 12.3 - 15.3)	13.8	subsurface sediment	WLCZDI00WRS07WRS07-4
Downtown (RM 12.3 - 15.3)	13.8	subsurface sediment	WLCZDI00WRS07WRS07-5
Downtown (RM 12.3 - 15.3)	13.8	subsurface sediment	WLCZDI00WRS08WRS08-2
Downtown (RM 12.3 - 15.3)	13.8	subsurface sediment	WLCZDI00WRS08WRS08-3
Downtown (RM 12.3 - 15.3)	13.8	subsurface sediment	WLCZDI00WRS08WRS08-4
Downtown (RM 12.3 - 15.3)	13.8	subsurface sediment	WLCZDI00WRS28WRS28-2
Downtown (RM 12.3 - 15.3)	13.8	subsurface sediment	WLCZDI00WRS28WRS28-3
Downtown (RM 12.3 - 15.3)	13.8	subsurface sediment	WLLASE08DPSCC019C
Downtown (RM 12.3 - 15.3)	13.8	subsurface sediment	WLLASE08DPSCC020C
Downtown (RM 12.3 - 15.3)	13.8	surface sediment	WLCZDH04T215R28
Downtown (RM 12.3 - 15.3)	13.8	surface sediment	WLCZDH04T216R30

Table 5.6-14. RI Data Set Sediment Sample Inventory in Outlying Reaches.

Reach	River Mile	Sediment	Sample ID
Downtown (RM 12.3 - 15.3)	13.8	surface sediment	WLCZDH04T217R31
Downtown (RM 12.3 - 15.3)	13.8	surface sediment	WLCZDH04T218R32
Downtown (RM 12.3 - 15.3)	13.8	surface sediment	WLCZDH04T218R48
Downtown (RM 12.3 - 15.3)	13.8	surface sediment	WLCZDH04T219R47
Downtown (RM 12.3 - 15.3)	13.8	surface sediment	WLCZDI00WRS07WRS07-1
Downtown (RM 12.3 - 15.3)	13.8	surface sediment	WLCZDI00WRS08WRS08-1
Downtown (RM 12.3 - 15.3)	13.8	surface sediment	WLCZDI00WRS17WRS17-1
Downtown (RM 12.3 - 15.3)	13.8	surface sediment	WLCZDI00WRS28WRS28-1
Downtown (RM 12.3 - 15.3)	13.8	surface sediment	WLCZDI00WRS29WRS29-1
Downtown (RM 12.3 - 15.3)	13.8	surface sediment	WLCZDI00WRS30WRS30-1
Downtown (RM 12.3 - 15.3)	13.8	surface sediment	WLCZDI00WRS52WRS52
Downtown (RM 12.3 - 15.3)	13.8	surface sediment	WLLASE08DPSCG033
Downtown (RM 12.3 - 15.3)	13.8	surface sediment	WLLASE08DPSCG035
Downtown (RM 12.3 - 15.3)	13.9	subsurface sediment	WLCZDI00WRS25WRS25-2
Downtown (RM 12.3 - 15.3)	13.9	subsurface sediment	WLCZDI00WRS25WRS25-3
Downtown (RM 12.3 - 15.3)	13.9	surface sediment	WLCZDH04T220R45
Downtown (RM 12.3 - 15.3)	13.9	surface sediment	WLCZDH04T220R46
Downtown (RM 12.3 - 15.3)	13.9	surface sediment	WLCZDH04T221R44
Downtown (RM 12.3 - 15.3)	13.9	surface sediment	WLCZDH04T222R42
Downtown (RM 12.3 - 15.3)	13.9	surface sediment	WLCZDH04T222R43
Downtown (RM 12.3 - 15.3)	13.9	surface sediment	WLCZDH04T223R40
Downtown (RM 12.3 - 15.3)	13.9	surface sediment	WLCZDH04T223R41
Downtown (RM 12.3 - 15.3)	13.9	surface sediment	WLCZDI00WRS18WRS18-1
Downtown (RM 12.3 - 15.3)	13.9	surface sediment	WLCZDI00WRS19WRS19-1
Downtown (RM 12.3 - 15.3)	13.9	surface sediment	WLCZDI00WRS25WRS25-1
Downtown (RM 12.3 - 15.3)	13.9	surface sediment	WLCZDI00WRS26WRS26-1
Downtown (RM 12.3 - 15.3)	13.9	surface sediment	WLCZDI00WRS27WRS27-1
Downtown (RM 12.3 - 15.3)	13.9	surface sediment	WLLASE08DPSCG032
Downtown (RM 12.3 - 15.3)	13.9	surface sediment	WLLASE08DPSCG075
Downtown (RM 12.3 - 15.3)	14	subsurface sediment	WLCZDI00WRS22WRS22-2
Downtown (RM 12.3 - 15.3)	14	subsurface sediment	WLCZDI00WRS22WRS22-3
Downtown (RM 12.3 - 15.3)	14	subsurface sediment	WLLASE08DPSCC034A
Downtown (RM 12.3 - 15.3)	14	subsurface sediment	WLLASE08DPSCC034B
Downtown (RM 12.3 - 15.3)	14	surface sediment	WLCZDH04T224R39
Downtown (RM 12.3 - 15.3)	14	surface sediment	WLCZDH04T224R49
Downtown (RM 12.3 - 15.3)	14	surface sediment	WLCZDH04T225R37
Downtown (RM 12.3 - 15.3)	14	surface sediment	WLCZDH04T225R38
Downtown (RM 12.3 - 15.3)	14	surface sediment	WLCZDH04T226R35
Downtown (RM 12.3 - 15.3)	14	surface sediment	WLCZDH04T226R36
Downtown (RM 12.3 - 15.3)	14	surface sediment	WLCZDH04T227R33
Downtown (RM 12.3 - 15.3)	14	surface sediment	WLCZDH04T227R34
Downtown (RM 12.3 - 15.3)	14	surface sediment	WLCZDI00WRS20WRS20-1
Downtown (RM 12.3 - 15.3)	14	surface sediment	WLCZDI00WRS21WRS21-1
Downtown (RM 12.3 - 15.3)	14	surface sediment	WLCZDI00WRS22WRS22-1
Downtown (RM 12.3 - 15.3)	14	surface sediment	WLCZDI00WRS23WRS23-1
Downtown (RM 12.3 - 15.3)	14	surface sediment	WLCZDI00WRS24WRS24-1
Downtown (RM 12.3 - 15.3)	14.1	subsurface sediment	WLCZDI00WRS46WRS46-2
Downtown (RM 12.3 - 15.3)	14.1	subsurface sediment	WLCZDI00WRS46WRS46-3
Downtown (RM 12.3 - 15.3)	14.1	subsurface sediment	WLLASE08DPSCC007C
Downtown (RM 12.3 - 15.3)	14.1	subsurface sediment	WLLASE08DPSCC008B
Downtown (RM 12.3 - 15.3)	14.1	subsurface sediment	WLLASE08DPSCC035A
Downtown (RM 12.3 - 15.3)	14.1	subsurface sediment	WLLASE08DPSCC035B
Downtown (RM 12.3 - 15.3)	14.1	subsurface sediment	WLLASE08DPSCC036A
Downtown (RM 12.3 - 15.3)	14.1	subsurface sediment	WLLASE08DPSCC036B

Table 5.6-14. RI Data Set Sediment Sample Inventory in Outlying Reaches.

Reach	River Mile	Sediment	Sample ID
Downtown (RM 12.3 - 15.3)	14.1	surface sediment	WLCZDI00WRS46WRS46-1
Downtown (RM 12.3 - 15.3)	14.1	surface sediment	WLLASE08DPSCG016
Downtown (RM 12.3 - 15.3)	14.1	surface sediment	WLLASE08DPSCG017
Downtown (RM 12.3 - 15.3)	14.1	surface sediment	WLLASE08DPSCG076
Downtown (RM 12.3 - 15.3)	14.2	subsurface sediment	WLLASE08DPSCC009B
Downtown (RM 12.3 - 15.3)	14.2	subsurface sediment	WLLASE08DPSCC037A
Downtown (RM 12.3 - 15.3)	14.2	subsurface sediment	WLLASE08DPSCC037B
Downtown (RM 12.3 - 15.3)	14.2	subsurface sediment	WLLASE08DPSCC038A
Downtown (RM 12.3 - 15.3)	14.2	subsurface sediment	WLLASE08DPSCC038B
Downtown (RM 12.3 - 15.3)	14.2	subsurface sediment	WLLASE08DPSCC039A
Downtown (RM 12.3 - 15.3)	14.2	subsurface sediment	WLLASE08DPSCC039B
Downtown (RM 12.3 - 15.3)	14.2	surface sediment	WLLASE08DPSCG018
Downtown (RM 12.3 - 15.3)	14.3	surface sediment	WLLASE08DPSCG019
Downtown (RM 12.3 - 15.3)	14.4	subsurface sediment	WLLASE08DPSCC010B
Downtown (RM 12.3 - 15.3)	14.4	surface sediment	WLLASE08DPSCG020
Downtown (RM 12.3 - 15.3)	14.5	subsurface sediment	WLLASE08DPSCC011B
Downtown (RM 12.3 - 15.3)	14.5	surface sediment	WLCRIL99HCSS02HCSS02
Downtown (RM 12.3 - 15.3)	14.5	surface sediment	WLLASE08DPSCG021
Downtown (RM 12.3 - 15.3)	14.5	surface sediment	WLLASE08DPSCG022
Downtown (RM 12.3 - 15.3)	14.5	surface sediment	WLLASE08DPSCG031
Downtown (RM 12.3 - 15.3)	14.5	surface sediment	WLLASE08DPSCG077
Downtown (RM 12.3 - 15.3)	14.6	surface sediment	WLCRIL99HCSS04HCSS04
Downtown (RM 12.3 - 15.3)	14.6	surface sediment	WLCRIV99PA03PA03
Downtown (RM 12.3 - 15.3)	14.6	surface sediment	WLCRIV99PA04PA04
Downtown (RM 12.3 - 15.3)	14.7	surface sediment	WLCRIL99HCSS03HCSS03
Downtown (RM 12.3 - 15.3)	14.7	surface sediment	WLLASE08DPSCG023
Downtown (RM 12.3 - 15.3)	14.8	surface sediment	WLLASE08DPSCG024
Downtown (RM 12.3 - 15.3)	15	surface sediment	WLLASE08DPSCC014B
Downtown (RM 12.3 - 15.3)	15	surface sediment	WLLASE08DPSCG025
Downtown (RM 12.3 - 15.3)	15	surface sediment	WLLASE08DPSCG078
Downtown (RM 12.3 - 15.3)	15.1	subsurface sediment	WLLASE08DPSCC018B
Downtown (RM 12.3 - 15.3)	15.1	surface sediment	WLLASE08DPSCG026
Downtown (RM 12.3 - 15.3)	15.1	surface sediment	WLLASE08DPSCG030
Downtown (RM 12.3 - 15.3)	15.3	surface sediment	WLCRIL99HCSS30HCSS30
Upriver	15.4	surface sediment	LW2-U1C-1
Upriver	15.4	surface sediment	LW2-U1C-2
Upriver	15.4	surface sediment	LW2-U1C-3
Upriver	15.4	surface sediment	WLCDRD05PGR01Ref01
Upriver	15.4	surface sediment	WLCDRI03CREF01CREF01
Upriver	15.4	surface sediment	WLLASE08DPSCG079
Upriver	15.4	surface sediment	WLLRSH01HC02HC02
Upriver	15.4	surface sediment	WLLRSI01HC02HC02
Upriver	15.5	subsurface sediment	WLLASE08DPSCC016B
Upriver	15.5	surface sediment	WLCRIL99HCSS29HCSS29
Upriver	15.5	surface sediment	WLLASE08DPSCG027
Upriver	15.5	surface sediment	WLLASE08DPSCG029
Upriver	15.6	subsurface sediment	WLLASE08DPSCC017D
Upriver	15.6	surface sediment	WLCRIL99HCSS31HCSS31
Upriver	15.6	surface sediment	WLLASE08DPSCG028
Upriver	15.6	surface sediment	WLLRSH01HC01HC01
Upriver	15.8	subsurface sediment	WLLASE08DPSCC032B
Upriver	15.8	surface sediment	WLLASE08DPSCG080
Upriver	16	surface sediment	LW2-U2C-1
Upriver	16	surface sediment	LW2-U2C-2

Table 5.6-14. RI Data Set Sediment Sample Inventory in Outlying Reaches.

Reach	River Mile	Sediment	Sample ID
Upriver	16	surface sediment	LW2-U2C-3
Upriver	16.6	surface sediment	LW3-UG02A
Upriver	16.6	surface sediment	WLCRIL99HCSS32CSS103
Upriver	16.6	surface sediment	WLCRIL99HCSS32HCSS32
Upriver	16.6	surface sediment	WLLRSH01HC03HC03
Upriver	16.7	surface sediment	LW3-UG02C
Upriver	16.7	surface sediment	LW3-UG02C-R
Upriver	16.8	surface sediment	LW3-UG02B
Upriver	16.9	surface sediment	LW3-UG02D
Upriver	17	surface sediment	WLLRSH01HC04HC04
Upriver	17.0	surface sediment	LW3-UG02E-1
Upriver	17.0	surface sediment	LW3-UG02E-2
Upriver	17.0	surface sediment	LW3-UG02F
Upriver	17.1	surface sediment	LW2-U3C-1
Upriver	17.1	surface sediment	LW2-U3C-2
Upriver	17.1	surface sediment	LW2-U3C-3
Upriver	17.1	surface sediment	LW3-G785
Upriver	17.1	surface sediment	LW3-UG03A-1
Upriver	17.1	surface sediment	LW3-UG03A-2
Upriver	17.1	surface sediment	LW3-UG03B
Upriver	17.1	surface sediment	LW3-UG03B-R
Upriver	17.1	surface sediment	LW3-UG03C
Upriver	17.7	surface sediment	WLLRSH01HC05HC05
Upriver	17.9	surface sediment	WLCMBJ99D09940D09940
Upriver	17.9	surface sediment	WLCMBJ99D09940D09954
Upriver	18.3	surface sediment	LW3-UG04A
Upriver	18.4	surface sediment	LW3-UG04B
Upriver	18.5	surface sediment	LW3-UG04C
Upriver	18.8	surface sediment	LW2-U4Q-1
Upriver	18.8	surface sediment	LW2-U4Q-2
Upriver	18.8	surface sediment	LW2-U4Q-3
Upriver	18.8	surface sediment	LW3-G786
Upriver	18.8	surface sediment	LW3-UG06A
Upriver	18.8	surface sediment	LW3-UG06B
Upriver	18.8	surface sediment	LW3-UG06B-R
Upriver	18.8	surface sediment	WLCDRD05PGR03Ref03
Upriver	18.8	surface sediment	WLLRSH01HC07HC07
Upriver	18.8	surface sediment	WLLRSH01HC08HC08
Upriver	18.8	surface sediment	WLLRSI01HC08HC08
Upriver	18.9	surface sediment	LW3-UG06C
Upriver	21.5	surface sediment	WLCMBJ99D09941D09941
Upriver	21.5	surface sediment	WLFLH07WR01SD
Upriver	22.6	surface sediment	WLFLH07WR02SD
Upriver	22.7	surface sediment	LW3-UG11A
Upriver	22.7	surface sediment	LW3-UG11B
Upriver	22.7	surface sediment	LW3-UG11C
Upriver	22.7	surface sediment	WLCMBJ99D09942D09942
Upriver	22.9	surface sediment	WLLRSI01CD05CD05
Upriver	23	surface sediment	WLLRSH01HC09HC09
Upriver	23	surface sediment	WLLRSI01CD04CD04
Upriver	23.1	surface sediment	LW3-UG12A
Upriver	23.1	surface sediment	WLLRSI01CD03CD03
Upriver	23.2	surface sediment	LW2-U6TOC-1
Upriver	23.2	surface sediment	LW2-U6TOC-2

Table 5.6-14. RI Data Set Sediment Sample Inventory in Outlying Reaches.

Reach	River Mile	Sediment	Sample ID
Upriver	23.2	surface sediment	LW2-U6TOC-3
Upriver	23.2	surface sediment	LW3-G787
Upriver	23.2	surface sediment	LW3-UG12B
Upriver	23.2	surface sediment	LW3-UG12B-R
Upriver	23.2	surface sediment	LW3-UG12C
Upriver	23.2	surface sediment	WLCDRD05PGR02Ref02
Upriver	23.2	surface sediment	WLCDRI03CREF02CREF02
Upriver	23.2	surface sediment	WLLRSH01HC10HC10
Upriver	23.2	surface sediment	WLLRSI01CD02CD02
Upriver	23.2	surface sediment	WLLRSI01HC10HC10
Upriver	23.3	surface sediment	WLLRSI01CD01CD01
Upriver	23.8	surface sediment	WLFLH07WR05SD
Upriver	23.9	surface sediment	WLCMBA01ED0130ED0130
Upriver	23.9	surface sediment	WLCMBJ99D09943D09943
Upriver	24.1	surface sediment	WLFLH07WR03SD
Upriver	24.4	surface sediment	WLFLH07WR04SD
Upriver	25.2	surface sediment	WLFLH07WR06SD
Upriver	25.4	surface sediment	WLFLH07WR07SD
Upriver	25.5	surface sediment	LW2-U5Q-1
Upriver	25.5	surface sediment	LW2-U5Q-2
Upriver	25.5	surface sediment	LW2-U5Q-3
Upriver	25.5	surface sediment	LW3-G788
Upriver	25.5	surface sediment	LW3-G788-R
Upriver	26	surface sediment	WLFLH07BH01SD
Upriver	26.1	surface sediment	WLFLH07BH03SD
Upriver	26.1	surface sediment	WLFLH07BH04SD

Table 5.6-15. Matrix of p-values* from Mann-Whitney Pair-wise Comparisons of Selected Indicator Chemicals in Surface Sediments By Reach.

% Fines

Mean	Median	95th %ile	Location	Downtown	Study Area	Downstream	Mult. Chan.	DT-No Zidell
30.5	28.2	67.4	**Upriver**	0.962	0.000	0.010	0.320	0.934
20.9	13.5	69.7	**Downtown**		0.000	0.009	0.915	1.000
51.1	61.3	92.2	**Study Area**			1.000	0.000	0.000
53.3	59.9	94.5	**Downstream**				0.001	0.003
16.7	11.8	52.5	**Mult. Chan.**					0.913
18.1	13.2	58.7	**DT-No Zidell**					

TOC (%)

Mean	Median	95th %ile	Location	Downtown	Study Area	Downstream	Mult. Chan.	DT-No Zidell
1.13	1.18	2.29	**Upriver**	0.971	0.000	1.000	0.996	0.995
1.13	0.85	2.48	**Downtown**		0.001	0.994	0.999	1.000
1.8	1.75	3.1	**Study Area**			0.024	0.007	0.002
1.16	1.15	2.44	**Downstream**				0.978	0.999
0.911	0.44	2.21	**Mult. Chan.**					1.000
1.13	0.85	2.48	**DT-No Zidell**					

Total PCBs (µg/kg)

Mean	Median	95th %ile	Location	Downtown	Study Area	Downstream	Mult. Chan.	DT-No Zidell
5.69	2.9	19.5	**Upriver**	0.000	0.000	0.002	0.004	0.000
589	49.9	3240	**Downtown**		0.000	0.000	0.002	0.045
176	19.5	553	**Study Area**			0.000	0.235	1.000
22.5	5	29.2	**Downstream**				0.800	0.194
9.27	2.4	31	**Mult. Chan.**					0.993
102	11.9	338	**DT-No Zidell**					

TCDD TEQ (pg/g)

Mean	Median	95th %ile	Location	Downtown	Study Area	Downstream	Mult. Chan.	DT-No Zidell
0.309	0.111	1.15	**Upriver**	0.916	0.000	0.986	0.922	0.976
2.76	1.23	9.78	**Downtown**		0.566	1.000	1.000	1.000
74.1	1.28	43.2	**Study Area**			0.000	0.706	0.714
0.401	0.164	1.74	**Downstream**				1.000	1.000
0.282	0.282	0.375	**Mult. Chan.**					1.000
2.76	1.23	9.78	**DT-No Zidell**					

Total DDx (µg/kg)

Mean	Median	95th %ile	Location	Downtown	Study Area	Downstream	Mult. Chan.	DT-No Zidell
1.71	1.2	3.35	**Upriver**	0.026	0.000	0.064	0.023	0.039
7.82	3.35	19.3	**Downtown**		0.223	0.999	1.000	1.000
249	6.5	376	**Study Area**			0.002	0.023	0.316
4.7	3	14	**Downstream**				1.000	1.000
5.5	3.55	14	**Mult. Chan.**					1.000
7.82	3.35	19.3	**DT-No Zidell**					

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Table 5.6-15. Matrix of p-values* from Mann-Whitney Pair-wise Comparisons of Selected Indicator Chemicals in Surface Sediments By Reach.

Total PAH (µg/kg)

Mean	Median	95th %ile	Location	Downtown	Study Area	Downstream	Mult. Chan.	DT-No Zidell
92.4	25.9	196	**Upriver**	0.000	0.000	0.000	0.000	0.000
2080	310	8550	**Downtown**		0.004	0.656	0.139	0.876
28100	1120	65600	**Study Area**			0.000	0.966	0.006
1120	273	1870	**Downstream**				0.000	1.000
2280	2000	5760	**Mult. Chan.**					0.006
1440	199	4710	**DT-No Zidell**					

Notes:

*Bonferroni adjustment was used to control the family-wise error rate.

Shaded area denotes $p \leq 0.05$

Table 5.6-16. Summary Statistics for All Depositional Cores Combined.

	Units				Mean					Mean (half DL)				
Grain Size														
Fines	percent	28	28	100	4.99 T	83.8 T	57.2	64.5	78.1	4.99 T	83.8 T	57.2	64.5	78.1
Conventionals														
Total organic carbon	percent	29	29	100	0.4	4.16	2.27	2.37	3.33	0.4	4.16	2.27	2.37	3.33
Metals														
Arsenic	mg/kg	29	29	100	3.12	7.77 J	5.27	5.25	6.77	3.12	7.77 J	5.27	5.25	6.77
Cadmium	mg/kg	29	29	100	0.12	0.31	0.227	0.23	0.29	0.12	0.31	0.227	0.23	0.29
Chromium	mg/kg	29	29	100	24.2	44.7	35.8	37.6	41.4	24.2	44.7	35.8	37.6	41.4
Copper	mg/kg	29	29	100	21.1	71.6	40.4	40.5	59.4	21.1	71.6	40.4	40.5	59.4
Lead	mg/kg	29	29	100	8.2 J	17	13.2	13.6	16	8.2 J	17	13.2	13.6	16
Mercury	mg/kg	29	29	100	0.023	0.107 J	0.0604	0.0565	0.0966	0.023	0.107 J	0.0604	0.0565	0.0966
Nickel	mg/kg	29	29	100	19.7 J	35.8 J	30.6	30.1	35.5	19.7 J	35.8 J	30.6	30.1	35.5
Zinc	mg/kg	29	29	100	58	106	88	90.6	101	58	106	88	90.6	101
PCB Aroclors														
Aroclors	µg/kg	29	10	34	11 JT	22 T	15.3	15	21.6	2.5 UT	22 T	6.9	3.6	19.8
Pesticides														
Aldrin	µg/kg	29	10	34	0.26 J	0.81 J	0.507	0.48	0.77	0.22 U	0.81 J	0.275	0.155	0.712
Dieldrin	µg/kg	29	0	0						0.42 U	0.78 U	0.274	0.27	0.338
gamma-Hexachlorocyclohexane	µg/kg	29	0	0						0.22 U	1.7 U	0.201	0.15	0.498
Total Chlordanes	µg/kg	29	26	90	0.18 JT	1.1 JT	0.608	0.555	1	0.18 JT	1.1 JT	0.576	0.53	1
Total of 2,4' and 4,4'-DDD	µg/kg	29	28	97	0.21 JT	2.8 JT	0.903	0.75	1.87	0.21 JT	2.8 JT	0.877	0.73	1.86
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg	29	29	100	0.24 JT	11 JT	3.86	3.8	6.42	0.24 JT	11 JT	3.86	3.8	6.42
Total of 2,4' and 4,4'-DDE	µg/kg	29	29	100	0.24 JT	2.2 JT	1.36	1.4	2.06	0.24 JT	2.2 JT	1.36	1.4	2.06
Total of 2,4' and 4,4'-DDT	µg/kg	29	24	83	0.29 JT	7.6 JT	1.96	1.65	3.5	0.23 UT	7.6 JT	1.68	1.6	3.32
Polycyclic Aromatic Hydrocarbons														
Benzo(a)pyrene	µg/kg	29	29	100	6.3	50	15.8	13	30.4	6.3	50	15.8	13	30.4
High Molecular Weight PAH	µg/kg	29	29	100	65 JT	370 T	181	160	338	65 JT	370 T	181	160	338
Low Molecular Weight PAH	µg/kg	29	29	100	10 JT	140 T	47.8	39	118	10 JT	140 T	47.8	39	118
Naphthalene	µg/kg	29	19	66	8.9	19	13	12	18.1	0.58 U	19	8.61	10	17.6
Phenanthrene	µg/kg	29	29	100	5.3	81	23.6	20	64	5.3	81	23.6	20	64
Total cPAHs	µg/kg	29	29	100	35 JT	240 T	90.8	85	156	35 JT	240 T	90.8	85	156
Total PAHs	µg/kg	29	29	100	75 JT	510 T	229	210	434	75 JT	510 T	229	210	434
Phthalates														
Bis(2-ethylhexyl) phthalate	µg/kg	29	28	97	21	330	105	73.5	250	21	330	102	73	248
Butylbenzyl phthalate	µg/kg	29	1	3.4	210	210	210	210		2.2 U	210	9.59	1.5	8.1

Table 5.6-16. Summary Statistics for All Depositional Cores Combined.

					Detected Concentrations					Detected and Nondetected Concentrations				
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Semivolatile Organic Compounds														
Hexachlorobenzene	µg/kg	29	1	3.4	0.62 J	0.62 J	0.62	0.62		0.12 U	5.1 U	0.429	0.08	2.1
Phenols														
Pentachlorophenol	µg/kg	29	13	45	0.36 J	2.8 J	0.973	0.8	1.96	0.2 U	3 U	0.618	0.42	1.46
Petroleum														
Diesel Range Hydrocarbons	mg/kg	29	29	100	5.3 J	110 J	51	47	91.6	5.3 J	110 J	51	47	91.6
Residual Range Hydrocarbons	mg/kg	29	29	100	73 J	1000 J	518	520	968	73 J	1000 J	518	520	968
Total Petroleum Hydrocarbons	mg/kg	29	29	100	82 JT	1100 JT	571	570	1060	82 JT	1100 JT	571	570	1060
PCDD/Fs														
Total Dioxins/Furans	pg/g	29	29	100	12.64 JT	4083 JT	299	91.3	675	12.64 JT	4083 JT	299	91.3	675
Dioxin TEQ	pg/g	29	29	100	0.0161 JT	5.78 JT	0.536	0.175	1.62	0.0161 JT	5.78 JT	0.536	0.175	1.62

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

[c] Total PCBs are total PCB congeners whenever available regardless of their qualification, except for LWG beach samples where preference is given to Aroclors.

-- data not available.
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TEQ - toxic equivalent concentration

Reason codes for qualifiers:
A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

Table 5.6-17. Summary Statistics for RC483.

	Units				Mean					Mean (half DL)				
Grain Size														
Fines	percent	10	10	100	44.3 T	75.1 T	66.7	69.6	74.2	44.3 T	75.1 T	66.7	69.6	74.2
Conventionals														
Total organic carbon	percent	10	10	100	1.77	3.14	2.54	2.71	3.08	1.77	3.14	2.54	2.71	3.08
Metals														
Arsenic	mg/kg	10	10	100	4.58 T	6.62 J	5.86	5.89	6.58	4.58 T	6.62 J	5.86	5.89	6.58
Cadmium	mg/kg	10	10	100	0.205 T	0.27	0.248	0.26	0.27	0.205 T	0.27	0.248	0.26	0.27
Chromium	mg/kg	10	10	100	24.2	44.7	37.3	38.1	43.4	24.2	44.7	37.3	38.1	43.4
Copper	mg/kg	10	10	100	24.6	71.6	45	42.7	66.2	24.6	71.6	45	42.7	66.2
Lead	mg/kg	10	10	100	12 J	15.2 J	13.7	13.8	15.1	12 J	15.2 J	13.7	13.8	15.1
Mercury	mg/kg	10	10	100	0.047	0.094	0.0653	0.0595	0.0936	0.047	0.094	0.0653	0.0595	0.0936
Nickel	mg/kg	10	10	100	27.8 T	35.8 J	32.7	32.7	35.7	27.8 T	35.8 J	32.7	32.7	35.7
Zinc	mg/kg	10	10	100	58	99.1	88.5	92	98.7	58	99.1	88.5	92	98.7
PCB Aroclors														
Aroclors	µg/kg	10	2	20	11 T	11 T	11	11	11	4 UT	11 T	4.51	3.28	11
Pesticides														
Aldrin	µg/kg	10	6	60	0.32 J	0.55 J	0.43	0.42	0.543	0.27 U	0.66 U	0.334	0.34	0.537
Dieldrin	µg/kg	10	0	0						0.48 U	0.7 U	0.288	0.283	0.337
gamma-Hexachlorocyclohexane	µg/kg	10	0	0						0.27 U	1 U	0.189	0.153	0.356
Total Chlordanes	µg/kg	10	9	90	0.42 JT	1.1 JT	0.706	0.62	1.06	0.42 JT	1.1 JT	0.671	0.575	1.06
Total of 2,4' and 4,4'-DDD	µg/kg	10	10	100	0.48 JT	1.8 JT	0.963	0.87	1.62	0.48 JT	1.8 JT	0.963	0.87	1.62
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg	10	10	100	2.2 JT	11 JT	4.59	4.15	8.43	2.2 JT	11 JT	4.59	4.15	8.43
Total of 2,4' and 4,4'-DDE	µg/kg	10	10	100	1.1 T	2.1 T	1.53	1.5	2.06	1.1 T	2.1 T	1.53	1.5	2.06
Total of 2,4' and 4,4'-DDT	µg/kg	10	8	80	1.2 JT	7.6 JT	2.58	1.75	5.96	1 UT	7.6 JT	2.18	1.55	5.48
Polycyclic Aromatic Hydrocarbons														
Benzo(a)pyrene	µg/kg	10	10	100	13	21	16.1	15.5	21	13	21	16.1	15.5	21
High Molecular Weight PAH	µg/kg	10	10	100	140 JT	240 JT	192	200	236	140 JT	240 JT	192	200	236
Low Molecular Weight PAH	µg/kg	10	10	100	29 JT	59 T	47.3	49.5	58.1	29 JT	59 T	47.3	49.5	58.1
Naphthalene	µg/kg	10	9	90	8.9	17	12.1	12	15.8	0.76 U	17	11	11	15.7
Phenanthrene	µg/kg	10	10	100	15	28	21.7	21.5	27.6	15	28	21.7	21.5	27.6
Total cPAHs	µg/kg	10	10	100	75 JT	130 JT	96.5	92.5	126	75 JT	130 JT	96.5	92.5	126
Total PAHs	µg/kg	10	10	100	180 JT	270 JT	238	255	270	180 JT	270 JT	238	255	270
Phthalates														
Bis(2-ethylhexyl) phthalate	µg/kg	10	10	100	53	170	88.2	74	152	53	170	88.2	74	152
Butylbenzyl phthalate	µg/kg	10	0	0						2.5 U	12 U	2.52	1.58	5.78

Table 5.6-17. Summary Statistics for RC483.

					Detected Concentrations					Detected and Nondetected Concentrations				
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Semivolatile Organic Compounds														
Hexachlorobenzene	µg/kg	10	1	10	0.62 J	0.62 J	0.62	0.62		0.14 U	5.1 U	0.379	0.0775	1.68
Phenols														
Pentachlorophenol	µg/kg	10	2	20	0.36 J	1 J	0.68	0.68	0.968	0.33 U	1 J	0.335	0.24	0.743
Petroleum														
Diesel Range Hydrocarbons	mg/kg	10	10	100	36 J	78 J	54.7	47	77.1	36 J	78 J	54.7	47	77.1
Residual Range Hydrocarbons	mg/kg	10	10	100	370 J	780 J	578	560	776	370 J	780 J	578	560	776
Total Petroleum Hydrocarbons	mg/kg	10	10	100	410 JT	860 JT	636	620	851	410 JT	860 JT	636	620	851
PCDD/Fs														
Total Dioxins/Furans	pg/g	10	10	100	12.64 JT	253.3 T	95.8	63.6	224	12.64 JT	253.3 T	95.8	63.6	224
Dioxin TEQ	pg/g	10	10	100	0.0161 JT	0.63 JT	0.181	0.103	0.5	0.0161 JT	0.63 JT	0.181	0.103	0.5

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

-- data not available.
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TEQ - toxic equivalent concentration

Reason codes for qualifiers:
A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

Table 5.6-18. Summary Statistics for RC01.

	Units				Mean					Mean (half DL)				
Grain Size														
Fines	percent	8	8	100	4.99 T	83.8 T	45.5	47.8	78	4.99 T	83.8 T	45.5	47.8	78
Conventionals														
Total organic carbon	percent	9	9	100	0.4	4.16	2.53	2.94	3.83	0.4	4.16	2.53	2.94	3.83
Metals														
Arsenic	mg/kg	9	9	100	3.39 J	7.77 J	5.66	5.25	7.39	3.39 J	7.77 J	5.66	5.25	7.39
Cadmium	mg/kg	9	9	100	0.12	0.31	0.225	0.21	0.306	0.12	0.31	0.225	0.21	0.306
Chromium	mg/kg	9	9	100	25.7	40.3	35.5	38.1	40	25.7	40.3	35.5	38.1	40
Copper	mg/kg	9	9	100	21.1	47.5	36.2	36.4	46.5	21.1	47.5	36.2	36.4	46.5
Lead	mg/kg	9	9	100	8.2 J	15.7 J	12.6	11.8	15.7	8.2 J	15.7 J	12.6	11.8	15.7
Mercury	mg/kg	9	9	100	0.023	0.06	0.0487	0.055	0.0592	0.023	0.06	0.0487	0.055	0.0592
Nickel	mg/kg	9	9	100	25.6 J	35.5 J	31.4	30.1	35.1	25.6 J	35.5 J	31.4	30.1	35.1
Zinc	mg/kg	9	9	100	72.6	102	88.5	90.6	100	72.6	102	88.5	90.6	100
PCB Aroclors														
Aroclors	µg/kg	9	1	11	11 JT	11 JT	11	11		2.5 UT	11 JT	3.41	2.3	8.12
Pesticides														
Aldrin	µg/kg	9	4	44	0.26 J	0.81 J	0.623	0.71	0.797	0.22 U	0.81 J	0.363	0.2	0.774
Dieldrin	µg/kg	9	0	0						0.42 U	0.78 U	0.281	0.275	0.362
gamma-Hexachlorocyclohexane	µg/kg	9	0	0						0.22 U	0.99 U	0.194	0.15	0.393
Total Chlordanes	µg/kg	9	8	89	0.3 JT	1 JT	0.621	0.59	1	0.3 JT	1 JT	0.582	0.58	1
Total of 2,4' and 4,4'-DDD	µg/kg	9	8	89	0.21 JT	1.4 JT	0.72	0.665	1.26	0.21 JT	1.4 JT	0.657	0.6	1.24
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg	9	9	100	0.24 JT	5.7 JT	3.03	3.5	5.34	0.24 JT	5.7 JT	3.03	3.5	5.34
Total of 2,4' and 4,4'-DDE	µg/kg	9	9	100	0.24 JT	2 T	1.17	1.1	1.92	0.24 JT	2 T	1.17	1.1	1.92
Total of 2,4' and 4,4'-DDT	µg/kg	9	6	67	0.48 JT	3.6 JT	1.81	1.7	3.35	0.23 UT	3.6 JT	1.29	0.75	3.2
Polycyclic Aromatic Hydrocarbons														
Benzo(a)pyrene	µg/kg	9	9	100	6.3	50	17	12	43.6	6.3	50	17	12	43.6
High Molecular Weight PAH	µg/kg	9	9	100	65 JT	350 T	165	130	338	65 JT	350 T	165	130	338
Low Molecular Weight PAH	µg/kg	9	9	100	10 JT	130 T	44.4	36	99.6	10 JT	130 T	44.4	36	99.6
Naphthalene	µg/kg	9	6	67	10	19	14.3	13.5	18.8	0.58 U	19	9.66	12	18.6
Phenanthrene	µg/kg	9	9	100	5.3	70	19.9	13	50.4	5.3	70	19.9	13	50.4
Total cPAHs	µg/kg	9	9	100	35 JT	240 T	90.6	65	208	35 JT	240 T	90.6	65	208
Total PAHs	µg/kg	9	9	100	75 JT	450 T	212	170	422	75 JT	450 T	212	170	422
Phthalates														
Bis(2-ethylhexyl) phthalate	µg/kg	9	8	89	51	140	82.5	72	140	41 U	140	75.6	71	140
Butylbenzyl phthalate	µg/kg	9	0	0						2.2 U	19 U	2.99	1.5	7.56

Table 5.6-18. Summary Statistics for RC01.

					Detected Concentrations					Detected and Nondetected Concentrations				
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Semivolatile Organic Compounds														
Hexachlorobenzene	µg/kg	9	0	0						0.12 U	4.4 U	0.409	0.08	1.54
Phenols														
Pentachlorophenol	µg/kg	9	3	33	0.42 J	1.2 J	0.843	0.91	1.17	0.2 U	3 U	0.554	0.375	1.38
Petroleum														
Diesel Range Hydrocarbons	mg/kg	9	9	100	5.3 J	110 J	56.5	54	104	5.3 J	110 J	56.5	54	104
Residual Range Hydrocarbons	mg/kg	9	9	100	91 J	1000 J	583	560	1000	91 J	1000 J	583	560	1000
Total Petroleum Hydrocarbons	mg/kg	9	9	100	96 JT	1100 JT	641	620	1100	96 JT	1100 JT	641	620	1100
PCDD/Fs														
Total Dioxins/Furans	pg/g	9	9	100	41.01 JT	4083 JT	596	167	2560	41.01 JT	4083 JT	596	167	2560
Dioxin TEQ	pg/g	9	9	100	0.0758 JT	5.78 JT	0.969	0.387	3.72	0.0758 JT	5.78 JT	0.969	0.387	3.72

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

-- data not available.
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
PCDD/Fs - dioxins/furans
TEQ - toxic equivalent concentration

Reason codes for qualifiers:
A - Total value based on limited number of analytes.
J - The associated numerical value is an estimated quantity.
N - Presumptive evidence of presence of material; identification of the compound is not definitive.
T - The associated numerical value was mathematically derived (e.g., from summing multiple analyte results such as Aroclors, or calculating the average of multiple results for a single analyte). Also indicates all results that are selected for reporting in preference to other available results (e.g., for parameters reported by multiple methods) for the Round 2 data.
U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.

Table 5.6-19. Summary Statistics for RC02.

	Units				Mean					Mean (half DL)				
Grain Size														
Fines	percent	10	10	100	26.6 T	79.6 T	57	61.7	77.7	26.6 T	79.6 T	57	61.7	77.7
Conventionals														
Total organic carbon	percent	10	10	100	0.5	2.9	1.77	1.82	2.68	0.5	2.9	1.77	1.82	2.68
Metals														
Arsenic	mg/kg	10	10	100	3.12	5.68	4.32	4.5	5.32	3.12	5.68	4.32	4.5	5.32
Cadmium	mg/kg	10	10	100	0.14	0.26	0.21	0.23	0.26	0.14	0.26	0.21	0.23	0.26
Chromium	mg/kg	10	10	100	29.2	41	34.8	35.1	40.8	29.2	41	34.8	35.1	40.8
Copper	mg/kg	10	10	100	26.8 T	59.3	39.6	35.6	58.7	26.8 T	59.3	39.6	35.6	58.7
Lead	mg/kg	10	10	100	8.48	17	13.2	14.1	16.6	8.48	17	13.2	14.1	16.6
Mercury	mg/kg	10	10	100	0.028	0.107 J	0.0661	0.059	0.103	0.028	0.107 J	0.0661	0.059	0.103
Nickel	mg/kg	10	10	100	19.7 J	33.5	27.9	28.2	31.7	19.7 J	33.5	27.9	28.2	31.7
Zinc	mg/kg	10	10	100	70.1	106	87.1	86.6	103	70.1	106	87.1	86.6	103
PCB Aroclors														
Aroclors	µg/kg	10	7	70	12 JT	22 T	17.1	17	21.7	2.5 UT	22 T	12.4	15	21.6
Pesticides														
Aldrin	µg/kg	10	0	0						0.22 U	0.41 U	0.138	0.13	0.183
Dieldrin	µg/kg	10	0	0						0.42 U	0.6 U	0.255	0.253	0.291
gamma-Hexachlorocyclohexane	µg/kg	10	0	0						0.22 U	1.7 U	0.22	0.138	0.598
Total Chlordanes	µg/kg	10	9	90	0.18 JT	0.76 JT	0.499	0.5	0.748	0.18 JT	0.76 JT	0.476	0.475	0.747
Total of 2,4' and 4,4'-DDD	µg/kg	10	10	100	0.25 JT	2.8 JT	0.988	0.73	2.4	0.25 JT	2.8 JT	0.988	0.73	2.4
Total of 2,4' and 4,4'-DDD, -DDE, -DDT	µg/kg	10	10	100	1 JT	6.9 JT	3.89	4.05	6.27	1 JT	6.9 JT	3.89	4.05	6.27
Total of 2,4' and 4,4'-DDE	µg/kg	10	10	100	0.49 JT	2.2 JT	1.37	1.45	2.11	0.49 JT	2.2 JT	1.37	1.45	2.11
Total of 2,4' and 4,4'-DDT	µg/kg	10	10	100	0.29 JT	2.6 JT	1.55	1.65	2.51	0.29 JT	2.6 JT	1.55	1.65	2.51
Polycyclic Aromatic Hydrocarbons														
Benzo(a)pyrene	µg/kg	10	10	100	6.4	25	14.3	11.5	23.2	6.4	25	14.3	11.5	23.2
High Molecular Weight PAH	µg/kg	10	10	100	73 JT	370 T	184	120	348	73 JT	370 T	184	120	348
Low Molecular Weight PAH	µg/kg	10	10	100	13 JT	140 T	51.3	31.5	122	13 JT	140 T	51.3	31.5	122
Naphthalene	µg/kg	10	4	40	11	16	12.8	12	15.4	0.58 U	16	5.31	0.398	14.2
Phenanthrene	µg/kg	10	10	100	8	81	28.8	19.5	69.3	8	81	28.8	19.5	69.3
Total cPAHs	µg/kg	10	10	100	39 JT	150 T	85.3	63	150	39 JT	150 T	85.3	63	150
Total PAHs	µg/kg	10	10	100	87 JT	510 T	236	150	465	87 JT	510 T	236	150	465
Phthalates														
Bis(2-ethylhexyl) phthalate	µg/kg	10	10	100	21	330	139	135	299	21	330	139	135	299
Butylbenzyl phthalate	µg/kg	10	1	10	210	210	210	210		2.4 U	210	22.6	1.48	117

Table 5.6-19. Summary Statistics for RC02.

					Detected Concentrations					Detected and Nondetected Concentrations				
Analyte	Units	# Analyzed	# Detected	% Detected	Minimum[a]	Maximum[a]	Mean	Median[b]	95th[b]	Minimum (full DL)[a]	Maximum (full DL)[a]	Mean (half DL)	Median (half DL)[b]	95th (half DL)[b]
Semivolatile Organic Compounds														
Hexachlorobenzene	µg/kg	10	0	0						0.12 U	3.9 U	0.498	0.095	1.93
Phenols														
Pentachlorophenol	µg/kg	10	8	80	0.45 J	2.8 J	1.1	0.79	2.31	0.23 U	2.8 J	0.958	0.74	2.17
Petroleum														
Diesel Range Hydrocarbons	mg/kg	10	10	100	9.2 J	75 J	42.4	44.5	68.3	9.2 J	75 J	42.4	44.5	68.3
Residual Range Hydrocarbons	mg/kg	10	10	100	73 J	740 J	399	400	655	73 J	740 J	399	400	655
Total Petroleum Hydrocarbons	mg/kg	10	10	100	82 JT	820 JT	443	450	726	82 JT	820 JT	443	450	726
PCDD/Fs														
Total Dioxins/Furans	pg/g	10	10	100	32.9 JT	720.4 T	235	75.5	670	32.9 JT	720.4 T	235	75.5	670
Dioxin TEQ	pg/g	10	10	100	0.0502 JT	1.85 JT	0.503	0.14	1.59	0.0502 JT	1.85 JT	0.503	0.14	1.59

Notes:

[a] Whenever several result values match maximum or minimum value, qualifier preference has been given in the following order: U over J over A over N over T over no qualification.

[b] Median is the exact result value ranking as the 0.50 percentile in an ascending list of all results, and 95th percentile is the exact result value of the 0.95 ranking result. When the ascending list of all results doesn't produce an exact match to the corresponding percentile rank, average of two adjacent results ranking closest to 0.50 percentile is the median, and an interpolated value is the 95th percentile. Such median or 95th percentile value is always qualified with "V". It is qualified with "U" if both results ranking immediately above and below the corresponding percentile are "U" qualified, and with "J" if at least one of the results is "J" qualified.

-- data not available.
cPAH - carcinogenic polycyclic aromatic hydrocarbon
DL - detection limit
PAH - polycyclic aromatic hydrocarbon
PCB - polychlorinated biphenyl
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Reason codes for qualifiers:
A - Total value based on limited number of analytes.
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U - The material was analyzed for, but was not detected. The associated numerical value is the sample quantitation limit.
V - Median or 95th percentile obtained through interpolation.