

# **CHAPTER I**

## **SECTION 3 TABLES**

**Table I-3-1  
Summary Statistics of Total Suspended Solids Observed in Near-field Buoys/Transects**

<b>East Griffin Island</b>							
	Upstream	Side Channel	Inside Containment	100 m Downstream	300 m Downstream East	300 m Downstream West	
N	427	359	178	345	414	422	
Min	0.51	0.52	0.58	0.5	0.5	0.485	
Max	1160	107	2740	26.7	31.6	47.7	
Mean	7.44	4.53	57.7	3.76	4.35	4.66	
Median	2.42	3.05	15.6	2.63	3.16	3.03	
Std Dev	56.7	7.45	214	3.34	4.03	5.14	
CV	762	164	371	88.8	92.7	110	
Std Err	2.74	0.393	16.0	0.180	0.198	0.250	
<b>Lock 7: Operation #1</b>							
	100m Upstream Buoy	100m Upstream Transect	10m Side Channel Transect	100m Downstream Transect	300m Downstream Buoy	300m Downstream Transect	
N	183	40	40	42	44	46	
Min	0.515	1.46	1.38	1.04	0.52	1.07	
Max	14.4	42.8	29.4	20.4	4.09	25.1	
Mean	2.04	7.10	5.79	4.38	1.89	5.02	
Median	1.61	2.91	3.17	2.67	1.77	3.01	
Std Dev	1.95	10.3	5.66	4.55	0.857	4.88	
CV	95.6	145	97.8	104	45.5	97.1	
Std Err	0.144	1.63	0.894	0.703	0.129	0.719	
<b>Lock 7: Operation #2</b>							
	100m Upstream Buoy	100m Upstream Transect	10m Side Channel Transect	100m Downstream Transect	300m Downstream Buoy	300m Downstream Transect	
N	108	1	1	1	152	1	
Min	0.52	3.63	2.2	1.53	0.51	2.81	
Max	54.8	3.63	2.2	1.53	27.8	2.81	
Mean	7.68	3.63	2.2	1.53	4.67	2.81	
Median	4.65	3.63	2.2	1.53	3.23	2.81	
Std Dev	8.96	.	.	.	4.02	.	
CV	117	.	.	.	86.1	.	
Std Err	0.863	.	.	.	0.326	.	
<b>Lock 7: Operation #3</b>							
	100m Upstream Buoy	300m Downstream Buoy					
N	151	18					
Min	0.475	1.05					
Max	8.75	6.39					
Mean	1.60	2.72					
Median	1.38	1.97					
Std Dev	1.43	1.77					
CV	89.2	65.0					
Std Err	0.116	0.417					

**Table I-3-1**

**Summary Statistics of Total Suspended Solids Observed in Near-field Buoys/Transects**

<b>Lock 7: Operation #4</b>							
	100m Upstream Buoy	300m Downstream Buoy					
N	15	4					
Min	1.05	0.535					
Max	6.39	0.565					
Mean	3.03	0.551					
Median	2.28	0.553					
Std Dev	1.78	0.0125					
CV	58.8	2.27					
Std Err	0.461	0.00625					
<b>Rogers Island: East Channel</b>							
	East Channel Rogers Island	25m Downstream Transect	Downstream East	Downstream West			
N	543	292	632	404			
Min	0.51	1.07	0.515	0.5			
Max	225	164	54.8	332			
Mean	15.7	23.0	5.69	10.2			
Median	4.33	7.68	4.06	3.84			
Std Dev	30.2	33.4	5.57	30.0			
CV	193	145	98.0	294			
Std Err	1.30	1.95	0.222	1.49			
<b>Rogers Island: West Channel: Operation #1</b>							
	Area Background Buoy	100m Upstream Buoy	100m Upstream Transect	10m Side Channel Transect	100m Downstream Transect	300m Downstream Buoy	300m Downstream Transect
N	539	454	28	28	28	375	53
Min	0.485	0.48	0.48	0.971	1.06	0.515	1.03
Max	14.6	45.1	3.79	5.18	24.7	204	71.4
Mean	1.56	2.63	1.90	2.42	3.47	5.48	7.02
Median	1.36	1.56	1.7125	2.02	2.055	2.07	2.9
Std Dev	1.26	4.28	0.853	1.14	4.51	14.7	13.0
CV	80.7	163	44.8	47.0	130	269	185
Std Err	0.054	0.201	0.161	0.215	0.853	0.761	1.78
<b>Rogers Island: West Channel: Operation #2</b>							
	Area Background Buoy	100m Upstream Buoy	100m Upstream Transect	10m Side Channel Transect	100m Downstream Transect	300m Downstream Transect	300m Downstream Buoy
N	539	289	8	8	8	185	9
Min	0.485	0.49	1.38	1.37	1.44	0.475	1.27
Max	14.6	5.57	3.475	5.43	4.84	8.75	3.38
Mean	1.56	1.41	1.95	2.52	2.93	1.61	2.30
Median	1.36	1.29	1.72	2.12	2.22	1.41	2.36
Std Dev	1.26	0.963	0.677	1.34	1.38	1.33	0.653
CV	80.7	68.4	34.7	53.0	47.0	82.2	28.4
Std Err	0.0542	0.0566	0.239	0.472	0.487	0.0974	0.218

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**Summary Statistics of Total Suspended Solids Observed in Near-field Buoys/Transects**

<b>Rogers Island: West Channel: Operation #3</b>							
	100m Upstream Buoy	100m Upstream Transect	10m Side Channel Transect	100m Downstream Transect	300m Downstream Buoy	300m Downstream Transect	
N	405	210	215	214	424	218	
Min	0.485	0.475	0.475	0.48	0.48	0.485	
Max	7.1	34	68.6	59.8	45.1	30.2	
Mean	1.41	2.38	3.36	4.09	2.75	4.38	
Median	1.26	1.39	1.84	2.15	1.61	2.63	
Std Dev	0.978	3.99	6.26	6.28	4.51	4.79	
CV	69.4	167	186	154	164	109	
Std Err	0.0486	0.275	0.427	0.429	0.219	0.324	
<b>Rogers Island: West Channel: Operation #4</b>							
	100m Upstream Buoy	300m Downstream Buoy					
N	405	412					
Min	0.485	0.49					
Max	7.1	27.5					
Mean	1.41	2.28					
Median	1.26	1.37					
Std Dev	0.978	3.01					
CV	69.4	132					
Std Err	0.0486	0.148					
<b>Rogers Island: West Channel: Operation #5</b>							
	100m Upstream Buoy	300m Downstream Buoy					
N	83	164					
Min	0.51	0.58					
Max	14.6	163					
Mean	2.46	11.6					
Median	1.96	5.1					
Std Dev	2.11	21.6					
CV	85.9	186					
Std Err	0.232	1.68					
<b>Rogers Island: West Channel: Operation #6</b>							
	100m Upstream Buoy	100m Upstream Transect	10m Side Channel Transect	100m Downstream Transect	300m Downstream Buoy	300m Downstream Transect	
N	83	7	75	75	164	73	
Min	0.51	0.5	0.49	0.48	0.555	0.481	
Max	14.6	5.37	129	56.2	32.8	37.8	
Mean	2.46	2.21	5.12	5.55	4.28	6.35	
Median	1.96	1.6	1.93	2.35	3.04	2.66	
Std Dev	2.11	1.73	15.4	9.46	4.00	7.66	
CV	85.9	78.6	302	170	93.5	121	
Std Err	0.232	0.655	1.783	1.092	0.313	0.896	

**Table I-3-2**  
**Summary of Near-field TSS Paired Statistical Test Results**

<b>Location</b>	<b>No of pairs</b>	<b>Mean</b>	<b>Median</b>	<b>p-Value</b>	<b>Comment</b>
West Rogers Island Operation #6: 300m Downstream vs. 100 m Upstream	81	1.24	1.1	0.001	Significant
West Rogers Island Operation #5: 300m Downstream vs. 100m Upstream	81	13.3	3.13	<0.001	Significant
West Rogers Island Operation #4: 300m Downstream vs. 100m Upstream	374	0.52	0.04	<0.001	Significant
West Rogers Island Operation #3: 300m Downstream vs. 100m upstream	384	1.02	0.17	<0.001	Significant
West Rogers Island Operation #2: 300m Downstream vs. 100m Upstream	160	0.33	0.11	<0.002	Significant
West Rogers Island Operation #1: 300m Downstream vs. 100m Upstream	278	3.01	0.36	<0.001	Significant
East Rogers Island Downstream East vs. Rogers Island Background	498	4.24	2.58	<0.001	Significant
East Rogers Island Downstream West vs. Rogers Island Background	379	8.8	2.38	<0.001	Significant
Easr Rogers Island Downstream West vs. East Rogers Island Downstream East	393	4.83	0.2	0.001	Significant
Lock 7: Operation #1: 300m Downstream vs. 100m Upstream	12	0.42	0.46	0.007	Significant
Lock 7: Operation #2: 300m Downstream vs. 100m Upstream	66	-8.05	-5.65	0.007	Significant

**Table I-3-3a. PCB Load From July 5 to October 27, 2009 for Different Far-Field Stations**

PCB Homologue	Mass (kg)			Mass Lost (kg)		Percent Mass Loss		Mass Fraction Transport		
	Thompson Island (TI)	Schuylerville at Lock 5	Waterford	TI - Lock 5	Lock 5 - Waterford	TI - Lock [(TI-L5)/TI]	Lock 5 - Waterford [(L5-Wtfd)/L5]	Thompson Island TID	Schuylerville at Lock 5	Waterford
Monochlorobiphenyl	77	57	33	20	24	26%	42%	0.15	0.20	0.17
Dichlorobiphenyl	182	113	78	69	35	38%	31%	0.36	0.39	0.41
Trichlorobiphenyl	134	67	42	67	25	50%	37%	0.27	0.23	0.22
Tetrachlorobiphenyl	66	34	22	32	12	48%	35%	0.13	0.12	0.12
Pentachlorobiphenyl	26	14	8	12	6	46%	41%	0.05	0.05	0.04
Hexachlorobiphenyl	14	7	4	7	3	51%	44%	0.03	0.02	0.02
Heptachlorobiphenyl	3	1	0.36	2	1					
Octachlorobiphenyl	1	0.13	0.01	1	0.12					
Nonachlorobiphenyl	0.14	0.02	0	0.11	0.02					
Decachlorobiphenyl	0	0	0	0	0					
<b>Total PCB</b>	<b>500</b>	<b>290</b>	<b>190</b>	<b>210</b>	<b>100</b>					

Notes:

1. Numbers are rounded to 1 or 2 significant digits
2. Percent mass loss and mass fraction transport are not calculated for Mono- through Hexachlorobiphenyl only since the contribution from Hepta- through Decachlorobiphenyl to the Total PCB are small

**Table I-3-3b. PCB Load From July 30 to August 8, 2009 for Different Far-Field Stations**

PCB Homologue	Mass (kg)			Mass Lost (kg)		Percent Mass Loss		Mass Fraction Transport		
	Thompson Island (TI)	Lock 5	Waterford	TI - Lock 5	Lock 5 - Waterford	TI - Lock [(TI-L5)/TI]	Lock 5 - Waterford [(L5-Wtfd)/L5]	Thompson Island (TID)	Schuylerville at Lock 5	Waterford
Monochlorobiphenyl	12	12	4	0	8	0%	65%	0.13	0.20	0.21
Dichlorobiphenyl	31	24	9	7	15	23%	64%	0.34	0.40	0.44
Trichlorobiphenyl	26	14	5	12	9	46%	63%	0.29	0.23	0.26
Tetrachlorobiphenyl	13	7	3	6	4	46%	57%	0.14	0.12	0.15
Pentachlorobiphenyl	5	3	1	2	2	43%	63%	0.06	0.05	0.06
Hexachlorobiphenyl	3	1.0	1	2	0	68%	36%	0.03	0.02	0.03
Heptachlorobiphenyl	1	0	0.05	1	0					
Octachlorobiphenyl	0	0	0.00	0	0.00					
Nonachlorobiphenyl	0.06	0	0	0.06	0.00					
Decachlorobiphenyl	0	0	0	0	0					
<b>Total PCB</b>	<b>90</b>	<b>60</b>	<b>20</b>	<b>30</b>	<b>40</b>					

Notes:

1. Numbers are rounded to 1 or 2 significant digits
2. Percent mass loss and mass fraction transport are not calculated for Mono- through Hexachlorobiphenyl only since the contribution from Hepta- through Decachlorobiphenyl to the Total PCB are small

**Table I-3-3c. PCB Load From October 8 to 21, 2009 for Different Far-Field Stations**

PCB Homologue	Mass (kg)			Mass Lost (kg)		Percent Mass Loss		Mass Fraction Transport		
	Thompson Island (TI)	Lock 5	Waterford	TI - Lock 5	Lock 5 - Waterford	TI - Lock [(TI-L5)/TI]	Lock 5 - Waterford [(L5-Wtfd)/L5]	Thompson Island (TID)	Schuylerville at Lock 5	Waterford
Mono	20	10	7	10	3	50%	32%	0.22	0.25	0.23
Di	30	20	10	10	10	33%	50%	0.33	0.50	0.33
Tri	20	10	6	10	4	50%	45%	0.22	0.25	0.18
Tetra	10	5	2	5	3	50%	54%	0.11	0.13	0.08
Penta	5	2	1	3	1	65%	53%	0.06	0.05	0.03
Hexa	3	1	0	2	1	64%	69%	0.03	0.02	0.01
Hepta	1	0	0.01	0	0					
Octa	0	0.00	0.00	0	0.00					
Nona	0.02	0.00	0	0.02	0.00					
Deca	0	0	0	0	0					
<b>Total PCB</b>	<b>90</b>	<b>40</b>	<b>30</b>	<b>50</b>	<b>10</b>					

Notes:

1. Numbers are rounded to 1 or 2 significant digits
2. Percent mass loss and mass fraction transport are not calculated for Mono- through Hexachlorobiphenyl only since the contribution from Hepta- through Decachlorobiphenyl to the Total PCB are small