

Tables

Table 1-1
Timing of Sampling Events in the sv-CWCM and hv-CWCM Programs

Sampling Program	Event	Survey Dates	Average Flow at Dundee Dam (cfs)
sv-CWCM	Routine Event 1	August 15-18, 2011	2,530
	Routine Event 2	February 20-23, 2012	650
	Routine Event 3	March 26-29, 2012	390
	Routine Event 4	June 4-7, 2012	1,330
	Low-Flow/Spring Tide Event	August 28-30, 2012	290
	Routine Event 5	December 10-13, 2012	600
	High-Flow Event 1	February 26-28 and March 4-5, 2013	2,200
	High-Flow Event 2	June 7-10 and 20-21, 2013	3,180
hv-CWCM	High-Volume Event 1*	December 17-18, 2012 and January 8-9, 2013	910
	High-Volume Event 2	June 24-27, 2013	1,450

Notes:

* Lower Passaic River stations and Newark Bay stations were sampled in December 2012 and January 2013, respectively.

cfs: cubic feet per second

hv-CWCM: high-volume chemical water column monitoring

sv-CWCM: small-volume chemical water column monitoring

Table 1-2
Summary of hv-CWCM Sampling Events

Event	Date	Location ID	Station
First hv-CWCM	December 2012	12I-T175	Dundee Dam
	December 2012	12I-T102	RM 10.2
	December 2012	12I-T042	RM 4.2
	January 2013	N08-TNBS	Newark Bay South
	January 2013	N08-TNBE	Newark Bay East
	January 2013	N08-TKVK	Kill van Kull
Second hv-CWCM	June 2013	13C-T175	Dundee Dam
	June 2013	13C-T102	RM 10.2
	June 2013	13C-T042	RM 4.2
	June 2013	N10-TNBS	Newark Bay South
	June 2013	N10-TNNE	Newark Bay Southeast
	June 2013	N10-TKVK	Kill van Kull

Notes:

hv-CWCM: high-volume chemical water column monitoring

RM: Lower Passaic River Mile

Table 1-3
Summary of sv-CWCM Sampling Events

Event	Station	Location ID	Date	Tide	River Mile
Routine Event 1	T000	11A-CE01-T000	8/17/2011	Low Slack Tide	0
Routine Event 1	T014	11A-CE01-T014	8/16/2011	Low Slack Tide	1.4
Routine Event 1	T102	11A-CE01-T102	8/16/2011	Low Slack Tide	10.2
Routine Event 1	TTR1	11A-CE01-TTR1	8/16/2011	Low Slack Tide	6.7
Routine Event 1	TTR2	11A-CE01-TTR2	8/16/2011	Low Slack Tide	4.2
Routine Event 1	T000	11A-CE02-T000	8/17/2011	Flood Tide	0
Routine Event 1	T014	11A-CE02-T014	8/16/2011	Flood Tide	1.4
Routine Event 1	T102	11A-CE02-T102	8/16/2011	Flood Tide	10.2
Routine Event 1	TTR1	11A-CE02-TTR1	8/16/2011	Flood Tide	6.7
Routine Event 1	TTR2	11A-CE02-TTR2	8/16/2011	Flood Tide	4.2
Routine Event 1	T000	11A-CE03-T000	8/17/2011	High Slack Tide	0
Routine Event 1	T014	11A-CE03-T014	8/16/2011	High Slack Tide	1.4
Routine Event 1	T102	11A-CE03-T102	8/16/2011	High Slack Tide	10.2
Routine Event 1	TTR1	11A-CE03-TTR1	8/16/2011	High Slack Tide	6.7
Routine Event 1	TTR2	11A-CE03-TTR2	8/16/2011	High Slack Tide	4.2
Routine Event 1	T000	11A-CE04-T000	8/17/2011	Ebb Tide	0
Routine Event 1	T014	11A-CE04-T014	8/16/2011	Ebb Tide	1.4
Routine Event 1	T102	11A-CE04-T102	8/16/2011	Ebb Tide	10.2
Routine Event 1	TTR1	11A-CE04-TTR1	8/16/2011	Ebb Tide	6.7
Routine Event 1	TTR2	11A-CE04-TTR2	8/16/2011	Ebb Tide	4.2
Routine Event 1	T175	11A-CE05-T175	8/15/2011	(NA)	17.6
Routine Event 1	T2R1	11A-CE05-T2R1	8/15/2011	(NA)	8.1
Routine Event 1	T3R1	11A-CE05-T3R1	8/17/2011	(NA)	11.2
Routine Event 1	TSR1	11A-CE05-TSR1	8/15/2011	(NA)	15.6
Routine Event 1	T175	11A-CEA5-T175	8/15/2011	(NA)	17.6
Routine Event 1	TARK	N02-CE01-TARK	8/17/2011	Low Slack Tide	(NA)
Routine Event 1	THKN	N02-CE01-THKN	8/17/2011	Low Slack Tide	(NA)
Routine Event 1	TKVK	N02-CE01-TKVK	8/17/2011	Low Slack Tide	(NA)
Routine Event 1	TNBE	N02-CE01-TNBE	8/18/2011	Low Slack Tide	(NA)
Routine Event 1	TNBN	N02-CE01-TNBN	8/18/2011	Low Slack Tide	(NA)
Routine Event 1	TNBS	N02-CE01-TNBS	8/18/2011	Low Slack Tide	(NA)
Routine Event 1	TNNE	N02-CE01-TNNE	8/18/2011	Low Slack Tide	(NA)
Routine Event 1	TARK	N02-CE02-TARK	8/17/2011	Flood Tide	(NA)
Routine Event 1	THKN	N02-CE02-THKN	8/17/2011	Flood Tide	(NA)
Routine Event 1	TKVK	N02-CE02-TKVK	8/17/2011	Flood Tide	(NA)
Routine Event 1	TNBE	N02-CE02-TNBE	8/18/2011	Flood Tide	(NA)
Routine Event 1	TNBN	N02-CE02-TNBN	8/18/2011	Flood Tide	(NA)
Routine Event 1	TNBS	N02-CE02-TNBS	8/18/2011	Flood Tide	(NA)
Routine Event 1	TNNE	N02-CE02-TNNE	8/18/2011	Flood Tide	(NA)
Routine Event 1	TARK	N02-CE03-TARK	8/17/2011	High Slack Tide	(NA)
Routine Event 1	THKN	N02-CE03-THKN	8/17/2011	High Slack Tide	(NA)
Routine Event 1	TKVK	N02-CE03-TKVK	8/17/2011	High Slack Tide	(NA)
Routine Event 1	TNBE	N02-CE03-TNBE	8/18/2011	High Slack Tide	(NA)
Routine Event 1	TNBN	N02-CE03-TNBN	8/18/2011	High Slack Tide	(NA)
Routine Event 1	TNBS	N02-CE03-TNBS	8/18/2011	High Slack Tide	(NA)
Routine Event 1	TNNE	N02-CE03-TNNE	8/18/2011	High Slack Tide	(NA)
Routine Event 1	TARK	N02-CE04-TARK	8/17/2011	Ebb Tide	(NA)
Routine Event 1	THKN	N02-CE04-THKN	8/17/2011	Ebb Tide	(NA)
Routine Event 1	TKVK	N02-CE04-TKVK	8/17/2011	Ebb Tide	(NA)
Routine Event 1	TNBE	N02-CE04-TNBE	8/18/2011	Ebb Tide	(NA)
Routine Event 1	TNBN	N02-CE04-TNBN	8/18/2011	Ebb Tide	(NA)

Table 1-3
Summary of sv-CWCM Sampling Events

Event	Station	Location ID	Date	Tide	River Mile
Routine Event 1	TNBS	N02-CE04-TNBS	8/18/2011	Ebb Tide	(NA)
Routine Event 1	TNNE	N02-CE04-TNNE	8/18/2011	Ebb Tide	(NA)
Routine Event 2	T000	12B-CE01-T000	2/21/2012	Low Slack Tide	0
Routine Event 2	T014	12B-CE01-T014	2/21/2012	Low Slack Tide	1.4
Routine Event 2	T102	12B-CE01-T102	2/20/2012	Low Slack Tide	10.2
Routine Event 2	TTR1	12B-CE01-TTR1	2/21/2012	Low Slack Tide	2.6
Routine Event 2	TTR2	12B-CE01-TTR2	2/21/2012	Low Slack Tide	2
Routine Event 2	T000	12B-CE02-T000	2/21/2012	Flood Tide	0
Routine Event 2	T014	12B-CE02-T014	2/21/2012	Flood Tide	1.4
Routine Event 2	T102	12B-CE02-T102	2/20/2012	Flood Tide	10.2
Routine Event 2	TTR1	12B-CE02-TTR1	2/21/2012	Flood Tide	4.8
Routine Event 2	TTR2	12B-CE02-TTR2	2/21/2012	Flood Tide	3.1
Routine Event 2	T000	12B-CE03-T000	2/21/2012	High Slack Tide	0
Routine Event 2	T014	12B-CE03-T014	2/21/2012	High Slack Tide	1.4
Routine Event 2	T102	12B-CE03-T102	2/20/2012	High Slack Tide	10.2
Routine Event 2	TTR1	12B-CE03-TTR1	2/21/2012	High Slack Tide	7
Routine Event 2	TTR2	12B-CE03-TTR2	2/21/2012	High Slack Tide	4.2
Routine Event 2	T000	12B-CE04-T000	2/21/2012	Ebb Tide	0
Routine Event 2	T014	12B-CE04-T014	2/21/2012	Ebb Tide	1.4
Routine Event 2	T102	12B-CE04-T102	2/20/2012	Ebb Tide	10.2
Routine Event 2	TTR1	12B-CE04-TTR1	2/21/2012	Ebb Tide	4.8
Routine Event 2	TTR2	12B-CE04-TTR2	2/21/2012	Ebb Tide	3.1
Routine Event 2	T175	12B-CE05-T175	2/20/2012	(NA)	17.6
Routine Event 2	T2R1	12B-CE05-T2R1	2/20/2012	(NA)	8.1
Routine Event 2	T3R1	12B-CE05-T3R1	2/20/2012	(NA)	11.2
Routine Event 2	TSR1	12B-CE05-TSR1	2/20/2012	(NA)	15.6
Routine Event 2	TARK	N03-CE01-TARK	2/23/2012	Low Slack Tide	(NA)
Routine Event 2	THKN	N03-CE01-THKN	2/22/2012	Low Slack Tide	(NA)
Routine Event 2	TKVK	N03-CE01-TKVK	2/23/2012	Low Slack Tide	(NA)
Routine Event 2	TNBE	N03-CE01-TNBE	2/23/2012	Low Slack Tide	(NA)
Routine Event 2	TNBN	N03-CE01-TNBN	2/22/2012	Low Slack Tide	(NA)
Routine Event 2	TNBS	N03-CE01-TNBS	2/23/2012	Low Slack Tide	(NA)
Routine Event 2	TNNE	N03-CE01-TNNE	2/22/2012	Low Slack Tide	(NA)
Routine Event 2	TNNW	N03-CE01-TNNW	2/22/2012	Low Slack Tide	(NA)
Routine Event 2	TARK	N03-CE02-TARK	2/23/2012	Flood Tide	(NA)
Routine Event 2	THKN	N03-CE02-THKN	2/22/2012	Flood Tide	(NA)
Routine Event 2	TKVK	N03-CE02-TKVK	2/23/2012	Flood Tide	(NA)
Routine Event 2	TNBE	N03-CE02-TNBE	2/23/2012	Flood Tide	(NA)
Routine Event 2	TNBN	N03-CE02-TNBN	2/22/2012	Flood Tide	(NA)
Routine Event 2	TNBS	N03-CE02-TNBS	2/23/2012	Flood Tide	(NA)
Routine Event 2	TNNE	N03-CE02-TNNE	2/22/2012	Flood Tide	(NA)
Routine Event 2	TNNW	N03-CE02-TNNW	2/22/2012	Flood Tide	(NA)
Routine Event 2	TARK	N03-CE03-TARK	2/23/2012	High Slack Tide	(NA)
Routine Event 2	THKN	N03-CE03-THKN	2/22/2012	High Slack Tide	(NA)
Routine Event 2	TKVK	N03-CE03-TKVK	2/23/2012	High Slack Tide	(NA)
Routine Event 2	TNBE	N03-CE03-TNBE	2/23/2012	High Slack Tide	(NA)
Routine Event 2	TNBN	N03-CE03-TNBN	2/22/2012	High Slack Tide	(NA)
Routine Event 2	TNBS	N03-CE03-TNBS	2/23/2012	High Slack Tide	(NA)
Routine Event 2	TNNE	N03-CE03-TNNE	2/22/2012	High Slack Tide	(NA)
Routine Event 2	TNNW	N03-CE03-TNNW	2/22/2012	High Slack Tide	(NA)
Routine Event 2	TARK	N03-CE04-TARK	2/23/2012	Ebb Tide	(NA)

Table 1-3
Summary of sv-CWCM Sampling Events

Event	Station	Location ID	Date	Tide	River Mile
Routine Event 2	THKN	N03-CE04-THKN	2/22/2012	Ebb Tide	(NA)
Routine Event 2	TKVK	N03-CE04-TKVK	2/23/2012	Ebb Tide	(NA)
Routine Event 2	TNBE	N03-CE04-TNBE	2/23/2012	Ebb Tide	(NA)
Routine Event 2	TNBN	N03-CE04-TNBN	2/22/2012	Ebb Tide	(NA)
Routine Event 2	TNBS	N03-CE04-TNBS	2/23/2012	Ebb Tide	(NA)
Routine Event 2	TNNE	N03-CE04-TNNE	2/22/2012	Ebb Tide	(NA)
Routine Event 2	TNNW	N03-CE04-TNNW	2/22/2012	Ebb Tide	(NA)
Routine Event 3	T000	12D-CE01-T000	3/27/2012	Low Slack Tide	0
Routine Event 3	T014	12D-CE01-T014	3/27/2012	Low Slack Tide	1.4
Routine Event 3	T102	12D-CE01-T102	3/26/2012	Low Slack Tide	10.2
Routine Event 3	TTR1	12D-CE01-TTR1	3/27/2012	Low Slack Tide	5.3
Routine Event 3	TTR2	12D-CE01-TTR2	3/27/2012	Low Slack Tide	3.3
Routine Event 3	T000	12D-CE02-T000	3/27/2012	Flood Tide	0
Routine Event 3	T014	12D-CE02-T014	3/27/2012	Flood Tide	1.4
Routine Event 3	T102	12D-CE02-T102	3/26/2012	Flood Tide	10.2
Routine Event 3	TTR1	12D-CE02-TTR1	3/27/2012	Flood Tide	6.5
Routine Event 3	TTR2	12D-CE02-TTR2	3/27/2012	Flood Tide	3.8
Routine Event 3	T000	12D-CE03-T000	3/27/2012	High Slack Tide	0
Routine Event 3	T014	12D-CE03-T014	3/27/2012	High Slack Tide	1.4
Routine Event 3	T102	12D-CE03-T102	3/26/2012	High Slack Tide	10.2
Routine Event 3	TTR1	12D-CE03-TTR1	3/27/2012	High Slack Tide	7.7
Routine Event 3	TTR2	12D-CE03-TTR2	3/27/2012	High Slack Tide	4.2
Routine Event 3	T000	12D-CE04-T000	3/27/2012	Ebb Tide	0
Routine Event 3	T014	12D-CE04-T014	3/27/2012	Ebb Tide	1.4
Routine Event 3	T102	12D-CE04-T102	3/26/2012	Ebb Tide	10.2
Routine Event 3	TTR1	12D-CE04-TTR1	3/27/2012	Ebb Tide	6.5
Routine Event 3	TTR2	12D-CE04-TTR2	3/27/2012	Ebb Tide	3.8
Routine Event 3	T175	12D-CE05-T175	3/26/2012	(NA)	17.6
Routine Event 3	T2R1	12D-CE05-T2R1	3/26/2012	(NA)	8.1
Routine Event 3	T3R1	12D-CE05-T3R1	3/26/2012	(NA)	11.2
Routine Event 3	TSR1	12D-CE05-TSR1	3/26/2012	(NA)	15.6
Routine Event 3	TARK	N05-CE01-TARK	3/29/2012	Low Slack Tide	(NA)
Routine Event 3	THKN	N05-CE01-THKN	3/28/2012	Low Slack Tide	(NA)
Routine Event 3	TKVK	N05-CE01-TKVK	3/29/2012	Low Slack Tide	(NA)
Routine Event 3	TNBE	N05-CE01-TNBE	3/29/2012	Low Slack Tide	(NA)
Routine Event 3	TNBN	N05-CE01-TNBN	3/28/2012	Low Slack Tide	(NA)
Routine Event 3	TNBS	N05-CE01-TNBS	3/29/2012	Low Slack Tide	(NA)
Routine Event 3	TNNE	N05-CE01-TNNE	3/28/2012	Low Slack Tide	(NA)
Routine Event 3	TNNW	N05-CE01-TNNW	3/28/2012	Low Slack Tide	(NA)
Routine Event 3	TARK	N05-CE02-TARK	3/29/2012	Flood Tide	(NA)
Routine Event 3	THKN	N05-CE02-THKN	3/28/2012	Flood Tide	(NA)
Routine Event 3	TKVK	N05-CE02-TKVK	3/29/2012	Flood Tide	(NA)
Routine Event 3	TNBE	N05-CE02-TNBE	3/29/2012	Flood Tide	(NA)
Routine Event 3	TNBN	N05-CE02-TNBN	3/28/2012	Flood Tide	(NA)
Routine Event 3	TNBS	N05-CE02-TNBS	3/29/2012	Flood Tide	(NA)
Routine Event 3	TNNE	N05-CE02-TNNE	3/28/2012	Flood Tide	(NA)
Routine Event 3	TNNW	N05-CE02-TNNW	3/28/2012	Flood Tide	(NA)
Routine Event 3	TARK	N05-CE03-TARK	3/29/2012	High Slack Tide	(NA)
Routine Event 3	THKN	N05-CE03-THKN	3/28/2012	High Slack Tide	(NA)
Routine Event 3	TKVK	N05-CE03-TKVK	3/29/2012	High Slack Tide	(NA)
Routine Event 3	TNBE	N05-CE03-TNBE	3/29/2012	High Slack Tide	(NA)

Table 1-3
Summary of sv-CWCM Sampling Events

Event	Station	Location ID	Date	Tide	River Mile
Routine Event 3	TNBN	N05-CE03-TNBN	3/28/2012	High Slack Tide	(NA)
Routine Event 3	TNBS	N05-CE03-TNBS	3/29/2012	High Slack Tide	(NA)
Routine Event 3	TNNE	N05-CE03-TNNE	3/28/2012	High Slack Tide	(NA)
Routine Event 3	TNNW	N05-CE03-TNNW	3/28/2012	High Slack Tide	(NA)
Routine Event 3	TARK	N05-CE04-TARK	3/29/2012	Ebb Tide	(NA)
Routine Event 3	THKN	N05-CE04-THKN	3/28/2012	Ebb Tide	(NA)
Routine Event 3	TKVK	N05-CE04-TKVK	3/29/2012	Ebb Tide	(NA)
Routine Event 3	TNBE	N05-CE04-TNBE	3/29/2012	Ebb Tide	(NA)
Routine Event 3	TNBN	N05-CE04-TNBN	3/28/2012	Ebb Tide	(NA)
Routine Event 3	TNBS	N05-CE04-TNBS	3/29/2012	Ebb Tide	(NA)
Routine Event 3	TNNE	N05-CE04-TNNE	3/28/2012	Ebb Tide	(NA)
Routine Event 3	TNNW	N05-CE04-TNNW	3/28/2012	Ebb Tide	(NA)
Routine Event 4	T000	12F-CE01-T000	6/5/2012	Low Slack Tide	0
Routine Event 4	T014	12F-CE01-T014	6/5/2012	Low Slack Tide	1.4
Routine Event 4	T102	12F-CE01-T102	6/4/2012	Low Slack Tide	10.2
Routine Event 4	TTR1	12F-CE01-TTR1	6/5/2012	Low Slack Tide	3
Routine Event 4	TTR2	12F-CE01-TTR2	6/5/2012	Low Slack Tide	2.2
Routine Event 4	T000	12F-CE02-T000	6/5/2012	Flood Tide	0
Routine Event 4	T014	12F-CE02-T014	6/5/2012	Flood Tide	1.4
Routine Event 4	T102	12F-CE02-T102	6/4/2012	Flood Tide	10.2
Routine Event 4	TTR1	12F-CE02-TTR1	6/5/2012	Flood Tide	4.6
Routine Event 4	TTR2	12F-CE02-TTR2	6/5/2012	Flood Tide	3.1
Routine Event 4	T000	12F-CE03-T000	6/5/2012	High Slack Tide	0
Routine Event 4	T014	12F-CE03-T014	6/5/2012	High Slack Tide	1.4
Routine Event 4	T102	12F-CE03-T102	6/4/2012	High Slack Tide	10.2
Routine Event 4	TTR1	12F-CE03-TTR1	6/5/2012	High Slack Tide	6.5
Routine Event 4	TTR2	12F-CE03-TTR2	6/5/2012	High Slack Tide	4
Routine Event 4	T000	12F-CE04-T000	6/5/2012	Ebb Tide	0
Routine Event 4	T014	12F-CE04-T014	6/5/2012	Ebb Tide	1.4
Routine Event 4	T102	12F-CE04-T102	6/4/2012	Ebb Tide	10.2
Routine Event 4	TTR1	12F-CE04-TTR1	6/5/2012	Ebb Tide	4.6
Routine Event 4	TTR2	12F-CE04-TTR2	6/5/2012	Ebb Tide	3.1
Routine Event 4	T175	12F-CE05-T175	6/4/2012	(NA)	17.6
Routine Event 4	T2R1	12F-CE05-T2R1	6/4/2012	(NA)	8.1
Routine Event 4	T3R1	12F-CE05-T3R1	6/4/2012	(NA)	11.2
Routine Event 4	TSR1	12F-CE05-TSR1	6/4/2012	(NA)	15.6
Routine Event 4	TARK	N06-CE01-TARK	6/7/2012	Low Slack Tide	(NA)
Routine Event 4	THKN	N06-CE01-THKN	6/6/2012	Low Slack Tide	(NA)
Routine Event 4	TKVK	N06-CE01-TKVK	6/7/2012	Low Slack Tide	(NA)
Routine Event 4	TNBE	N06-CE01-TNBE	6/7/2012	Low Slack Tide	(NA)
Routine Event 4	TNBN	N06-CE01-TNBN	6/6/2012	Low Slack Tide	(NA)
Routine Event 4	TNBS	N06-CE01-TNBS	6/7/2012	Low Slack Tide	(NA)
Routine Event 4	TNNE	N06-CE01-TNNE	6/6/2012	Low Slack Tide	(NA)
Routine Event 4	TNNW	N06-CE01-TNNW	6/6/2012	Low Slack Tide	(NA)
Routine Event 4	TARK	N06-CE02-TARK	6/7/2012	Flood Tide	(NA)
Routine Event 4	THKN	N06-CE02-THKN	6/6/2012	Flood Tide	(NA)
Routine Event 4	TKVK	N06-CE02-TKVK	6/7/2012	Flood Tide	(NA)
Routine Event 4	TNBE	N06-CE02-TNBE	6/7/2012	Flood Tide	(NA)
Routine Event 4	TNBN	N06-CE02-TNBN	6/6/2012	Flood Tide	(NA)
Routine Event 4	TNBS	N06-CE02-TNBS	6/7/2012	Flood Tide	(NA)
Routine Event 4	TNNE	N06-CE02-TNNE	6/6/2012	Flood Tide	(NA)

Table 1-3
Summary of sv-CWCM Sampling Events

Event	Station	Location ID	Date	Tide	River Mile
Routine Event 4	TNNW	N06-CE02-TNNW	6/6/2012	Flood Tide	(NA)
Routine Event 4	TARK	N06-CE03-TARK	6/7/2012	High Slack Tide	(NA)
Routine Event 4	THKN	N06-CE03-THKN	6/6/2012	High Slack Tide	(NA)
Routine Event 4	TKVK	N06-CE03-TKVK	6/7/2012	High Slack Tide	(NA)
Routine Event 4	TKVK	N06-CE03-TKVK-2	6/7/2012	High Slack Tide	(NA)
Routine Event 4	TNBE	N06-CE03-TNBE	6/7/2012	High Slack Tide	(NA)
Routine Event 4	TNBN	N06-CE03-TNBN	6/6/2012	High Slack Tide	(NA)
Routine Event 4	TNBS	N06-CE03-TNBS	6/7/2012	High Slack Tide	(NA)
Routine Event 4	TNNE	N06-CE03-TNNE	6/6/2012	High Slack Tide	(NA)
Routine Event 4	TNNW	N06-CE03-TNNW	6/6/2012	High Slack Tide	(NA)
Routine Event 4	TARK	N06-CE04-TARK	6/7/2012	Ebb Tide	(NA)
Routine Event 4	THKN	N06-CE04-THKN	6/6/2012	Ebb Tide	(NA)
Routine Event 4	TKVK	N06-CE04-TKVK	6/7/2012	Ebb Tide	(NA)
Routine Event 4	TNBE	N06-CE04-TNBE	6/7/2012	Ebb Tide	(NA)
Routine Event 4	TNBN	N06-CE04-TNBN	6/6/2012	Ebb Tide	(NA)
Routine Event 4	TNBS	N06-CE04-TNBS	6/7/2012	Ebb Tide	(NA)
Routine Event 4	TNNE	N06-CE04-TNNE	6/6/2012	Ebb Tide	(NA)
Routine Event 4	TNNW	N06-CE04-TNNW	6/6/2012	Ebb Tide	(NA)
Routine Event 5	T000	12H-CE01-T000	12/11/2012	Low Slack Tide	0
Routine Event 5	T014	12H-CE01-T014	12/11/2012	Low Slack Tide	1.4
Routine Event 5	T102	12H-CE01-T102	12/10/2012	Low Slack Tide	10.2
Routine Event 5	TTR1	12H-CE01-TTR1	12/11/2012	Low Slack Tide	2.5
Routine Event 5	TTR2	12H-CE01-TTR2	12/11/2012	Low Slack Tide	2
Routine Event 5	T000	12H-CE02-T000	12/11/2012	Flood Tide	0
Routine Event 5	T014	12H-CE02-T014	12/11/2012	Flood Tide	1.4
Routine Event 5	T102	12H-CE02-T102	12/10/2012	Flood Tide	10.2
Routine Event 5	TTR1	12H-CE02-TTR1	12/11/2012	Flood Tide	4.7
Routine Event 5	TTR2	12H-CE02-TTR2	12/11/2012	Flood Tide	3
Routine Event 5	T000	12H-CE03-T000	12/11/2012	High Slack Tide	0
Routine Event 5	T014	12H-CE03-T014	12/11/2012	High Slack Tide	1.4
Routine Event 5	T102	12H-CE03-T102	12/10/2012	High Slack Tide	10.2
Routine Event 5	TTR1	12H-CE03-TTR1	12/11/2012	High Slack Tide	6.7
Routine Event 5	TTR2	12H-CE03-TTR2	12/11/2012	High Slack Tide	4.1
Routine Event 5	T000	12H-CE04-T000	12/11/2012	Ebb Tide	0
Routine Event 5	T014	12H-CE04-T014	12/11/2012	Ebb Tide	1.4
Routine Event 5	T102	12H-CE04-T102	12/10/2012	Ebb Tide	10.2
Routine Event 5	TTR1	12H-CE04-TTR1	12/11/2012	Ebb Tide	4.7
Routine Event 5	TTR2	12H-CE04-TTR2	12/11/2012	Ebb Tide	3
Routine Event 5	T175	12H-CE05-T175	12/10/2012	(NA)	17.6
Routine Event 5	T2R1	12H-CE05-T2R1	12/10/2012	(NA)	8.1
Routine Event 5	T3R1	12H-CE05-T3R1	12/10/2012	(NA)	11.2
Routine Event 5	TSR1	12H-CE05-TSR1	12/10/2012	(NA)	15.6
Routine Event 5	TARK	N07-CE01-TARK	12/13/2012	Low Slack Tide	(NA)
Routine Event 5	THKN	N07-CE01-THKN	12/12/2012	Low Slack Tide	(NA)
Routine Event 5	TKVK	N07-CE01-TKVK	12/13/2012	Low Slack Tide	(NA)
Routine Event 5	TNBE	N07-CE01-TNBE	12/13/2012	Low Slack Tide	(NA)
Routine Event 5	TNBN	N07-CE01-TNBN	12/12/2012	Low Slack Tide	(NA)
Routine Event 5	TNBS	N07-CE01-TNBS	12/13/2012	Low Slack Tide	(NA)
Routine Event 5	TNNE	N07-CE01-TNNE	12/12/2012	Low Slack Tide	(NA)
Routine Event 5	TNNW	N07-CE01-TNNW	12/12/2012	Low Slack Tide	(NA)
Routine Event 5	TARK	N07-CE02-TARK	12/13/2012	Flood Tide	(NA)

Table 1-3
Summary of sv-CWCM Sampling Events

Event	Station	Location ID	Date	Tide	River Mile
Routine Event 5	THKN	N07-CE02-THKN	12/12/2012	Flood Tide	(NA)
Routine Event 5	TKVK	N07-CE02-TKVK	12/13/2012	Flood Tide	(NA)
Routine Event 5	TNBE	N07-CE02-TNBE	12/13/2012	Flood Tide	(NA)
Routine Event 5	TNBN	N07-CE02-TNBN	12/12/2012	Flood Tide	(NA)
Routine Event 5	TNBS	N07-CE02-TNBS	12/13/2012	Flood Tide	(NA)
Routine Event 5	TNNE	N07-CE02-TNNE	12/12/2012	Flood Tide	(NA)
Routine Event 5	TNNW	N07-CE02-TNNW	12/12/2012	Flood Tide	(NA)
Routine Event 5	TARK	N07-CE03-TARK	12/13/2012	High Slack Tide	(NA)
Routine Event 5	THKN	N07-CE03-THKN	12/12/2012	High Slack Tide	(NA)
Routine Event 5	TKVK	N07-CE03-TKVK	12/13/2012	High Slack Tide	(NA)
Routine Event 5	TNBE	N07-CE03-TNBE	12/13/2012	High Slack Tide	(NA)
Routine Event 5	TNBN	N07-CE03-TNBN	12/12/2012	High Slack Tide	(NA)
Routine Event 5	TNBS	N07-CE03-TNBS	12/13/2012	High Slack Tide	(NA)
Routine Event 5	TNNE	N07-CE03-TNNE	12/12/2012	High Slack Tide	(NA)
Routine Event 5	TNNW	N07-CE03-TNNW	12/12/2012	High Slack Tide	(NA)
Routine Event 5	TARK	N07-CE04-TARK	12/13/2012	Ebb Tide	(NA)
Routine Event 5	THKN	N07-CE04-THKN	12/12/2012	Ebb Tide	(NA)
Routine Event 5	TKVK	N07-CE04-TKVK	12/13/2012	Ebb Tide	(NA)
Routine Event 5	TNBE	N07-CE04-TNBE	12/13/2012	Ebb Tide	(NA)
Routine Event 5	TNBN	N07-CE04-TNBN	12/12/2012	Ebb Tide	(NA)
Routine Event 5	TNBS	N07-CE04-TNBS	12/13/2012	Ebb Tide	(NA)
Routine Event 5	TNNE	N07-CE04-TNNE	12/12/2012	Ebb Tide	(NA)
Routine Event 5	TNNW	N07-CE04-TNNW	12/12/2012	Ebb Tide	(NA)
High Flow Event 1	T000	12C-CE11-T000	2/27/2013	(NA)	0
High Flow Event 1	T014	12C-CE11-T014	2/27/2013	(NA)	1.4
High Flow Event 1	T042	12C-CE11-T042	2/27/2013	(NA)	4.2
High Flow Event 1	T067	12C-CE11-T067	2/27/2013	(NA)	6.7
High Flow Event 1	T102	12C-CE11-T102	2/27/2013	(NA)	10.2
High Flow Event 1	T175	12C-CE11-T175	2/27/2013	(NA)	17.6
High Flow Event 1	T2R1	12C-CE11-T2R1	2/26/2013	(NA)	8.1
High Flow Event 1	T3R1	12C-CE11-T3R1	2/26/2013	(NA)	11.2
High Flow Event 1	TSR1	12C-CE11-TSR1	2/26/2013	(NA)	15.6
High Flow Event 1	T000	12C-CE12-T000	2/27/2013	(NA)	0
High Flow Event 1	T014	12C-CE12-T014	2/27/2013	(NA)	1.4
High Flow Event 1	T042	12C-CE12-T042	2/28/2013	(NA)	4.2
High Flow Event 1	T067	12C-CE12-T067	2/27/2013	(NA)	6.7
High Flow Event 1	T102	12C-CE12-T102	2/27/2013	(NA)	10.2
High Flow Event 1	T175	12C-CE12-T175	2/27/2013	(NA)	17.6
High Flow Event 1	T2R1	12C-CE12-T2R1	2/27/2013	(NA)	8.1
High Flow Event 1	T3R1	12C-CE12-T3R1	2/27/2013	(NA)	11.2
High Flow Event 1	TSR1	12C-CE12-TSR1	2/27/2013	(NA)	15.6
High Flow Event 1	T175	12C-CE13-T175	2/27/2013	(NA)	17.6
High Flow Event 1	T000	12C-CE20-T000	2/28/2013	(NA)	0
High Flow Event 1	T014	12C-CE20-T014	2/28/2013	(NA)	1.4
High Flow Event 1	T042	12C-CE20-T042	2/28/2013	(NA)	4.2
High Flow Event 1	T067	12C-CE20-T067	2/28/2013	(NA)	6.7
High Flow Event 1	T102	12C-CE20-T102	2/28/2013	(NA)	10.2
High Flow Event 1	T175	12C-CE20-T175	2/28/2013	(NA)	17.6
High Flow Event 1	T2R1	12C-CE20-T2R1	2/27/2013	(NA)	8.1
High Flow Event 1	T3R1	12C-CE20-T3R1	2/27/2013	(NA)	11.2
High Flow Event 1	TSR1	12C-CE20-TSR1	2/27/2013	(NA)	15.6

Table 1-3
Summary of sv-CWCM Sampling Events

Event	Station	Location ID	Date	Tide	River Mile
High Flow Event 1	T000	12C-CE21-T000	3/4/2013	(NA)	0
High Flow Event 1	T014	12C-CE21-T014	3/4/2013	(NA)	1.4
High Flow Event 1	T042	12C-CE21-T042	3/4/2013	(NA)	4.2
High Flow Event 1	T067	12C-CE21-T067	3/4/2013	(NA)	6.7
High Flow Event 1	T102	12C-CE21-T102	3/4/2013	(NA)	10.2
High Flow Event 1	T175	12C-CE21-T175	3/4/2013	(NA)	17.6
High Flow Event 1	T2R1	12C-CE21-T2R1	2/27/2013	(NA)	8.1
High Flow Event 1	T3R1	12C-CE21-T3R1	2/27/2013	(NA)	11.2
High Flow Event 1	TSR1	12C-CE21-TSR1	2/27/2013	(NA)	15.6
High Flow Event 1	T175	12C-CE22-T175	3/4/2013	(NA)	17.6
High Flow Event 1	TARK	N04-CE01-TARK	3/5/2013	Low Slack Tide	(NA)
High Flow Event 1	TKVK	N04-CE01-TKVK	3/5/2013	Low Slack Tide	(NA)
High Flow Event 1	TARK	N04-CE03-TARK	3/5/2013	High Slack Tide	(NA)
High Flow Event 1	TKVK	N04-CE03-TKVK	3/5/2013	High Slack Tide	(NA)
High Flow Event 1	THKN	N04-CE11-THKN	2/27/2013	(NA)	(NA)
High Flow Event 1	TNBE	N04-CE11-TNBE	2/27/2013	(NA)	(NA)
High Flow Event 1	TNBN	N04-CE11-TNBN	2/27/2013	(NA)	(NA)
High Flow Event 1	TNBS	N04-CE11-TNBS	2/27/2013	(NA)	(NA)
High Flow Event 1	TNNE	N04-CE11-TNNE	2/27/2013	(NA)	(NA)
High Flow Event 1	TNNW	N04-CE11-TNNW	2/27/2013	(NA)	(NA)
High Flow Event 1	THKN	N04-CE12-THKN	2/27/2013	(NA)	(NA)
High Flow Event 1	TNBE	N04-CE12-TNBE	2/27/2013	(NA)	(NA)
High Flow Event 1	TNBN	N04-CE12-TNBN	2/27/2013	(NA)	(NA)
High Flow Event 1	TNBS	N04-CE12-TNBS	2/27/2013	(NA)	(NA)
High Flow Event 1	TNNE	N04-CE12-TNNE	2/27/2013	(NA)	(NA)
High Flow Event 1	TNNW	N04-CE12-TNNW	2/27/2013	(NA)	(NA)
High Flow Event 1	THKN	N04-CE20-THKN	2/28/2013	(NA)	(NA)
High Flow Event 1	TNBE	N04-CE20-TNBE	2/28/2013	(NA)	(NA)
High Flow Event 1	TNBN	N04-CE20-TNBN	2/28/2013	(NA)	(NA)
High Flow Event 1	TNBS	N04-CE20-TNBS	2/28/2013	(NA)	(NA)
High Flow Event 1	TNNE	N04-CE20-TNNE	2/28/2013	(NA)	(NA)
High Flow Event 1	TNNW	N04-CE20-TNNW	2/28/2013	(NA)	(NA)
High Flow Event 1	THKN	N04-CE21-THKN	3/4/2013	(NA)	(NA)
High Flow Event 1	TNBE	N04-CE21-TNBE	3/4/2013	(NA)	(NA)
High Flow Event 1	TNBN	N04-CE21-TNBN	3/4/2013	(NA)	(NA)
High Flow Event 1	TNBS	N04-CE21-TNBS	3/4/2013	(NA)	(NA)
High Flow Event 1	TNNE	N04-CE21-TNNE	3/4/2013	(NA)	(NA)
High Flow Event 1	TNNW	N04-CE21-TNNW	3/4/2013	(NA)	(NA)
High Flow Event 2	T000	13A-CE11-T000	6/7/2013	(NA)	0
High Flow Event 2	T014	13A-CE11-T014	6/7/2013	(NA)	1.4
High Flow Event 2	T042	13A-CE11-T042	6/7/2013	(NA)	4.3
High Flow Event 2	T067	13A-CE11-T067	6/7/2013	(NA)	6.7
High Flow Event 2	T102	13A-CE11-T102	6/7/2013	(NA)	10.2
High Flow Event 2	T175	13A-CE11-T175	6/7/2013	(NA)	17.6
High Flow Event 2	T2R1	13A-CE11-T2R1	6/7/2013	(NA)	8.1
High Flow Event 2	T3R1	13A-CE11-T3R1	6/7/2013	(NA)	11.2
High Flow Event 2	TSR1	13A-CE11-TSR1	6/7/2013	(NA)	15.6
High Flow Event 2	T000	13A-CE12-T000	6/8/2013	(NA)	0
High Flow Event 2	T014	13A-CE12-T014	6/8/2013	(NA)	1.4
High Flow Event 2	T042	13A-CE12-T042	6/8/2013	(NA)	4.3
High Flow Event 2	T067	13A-CE12-T067	6/8/2013	(NA)	6.7

Table 1-3
Summary of sv-CWCM Sampling Events

Event	Station	Location ID	Date	Tide	River Mile
High Flow Event 2	T102	13A-CE12-T102	6/8/2013	(NA)	10.2
High Flow Event 2	T175	13A-CE12-T175	6/7/2013	(NA)	17.6
High Flow Event 2	T2R1	13A-CE12-T2R1	6/7/2013	(NA)	8.1
High Flow Event 2	T3R1	13A-CE12-T3R1	6/7/2013	(NA)	11.2
High Flow Event 2	TSR1	13A-CE12-TSR1	6/7/2013	(NA)	15.6
High Flow Event 2	T175	13A-CE13-T175	6/8/2013	(NA)	17.6
High Flow Event 2	T000	13A-CE20-T000	6/9/2013	(NA)	0
High Flow Event 2	T014	13A-CE20-T014	6/9/2013	(NA)	1.4
High Flow Event 2	T042	13A-CE20-T042	6/9/2013	(NA)	4.2
High Flow Event 2	T067	13A-CE20-T067	6/9/2013	(NA)	6.7
High Flow Event 2	T102	13A-CE20-T102	6/9/2013	(NA)	10.2
High Flow Event 2	T175	13A-CE20-T175	6/9/2013	(NA)	17.6
High Flow Event 2	T2R1	13A-CE20-T2R1	6/8/2013	(NA)	8.1
High Flow Event 2	T3R1	13A-CE20-T3R1	6/8/2013	(NA)	11.2
High Flow Event 2	TSR1	13A-CE20-TSR1	6/8/2013	(NA)	15.6
High Flow Event 2	T000	13A-CE21-T000	6/20/2013	(NA)	0
High Flow Event 2	T014	13A-CE21-T014	6/20/2013	(NA)	1.4
High Flow Event 2	T042	13A-CE21-T042	6/20/2013	(NA)	4.2
High Flow Event 2	T067	13A-CE21-T067	6/20/2013	(NA)	6.7
High Flow Event 2	T102	13A-CE21-T102	6/20/2013	(NA)	10.2
High Flow Event 2	T175	13A-CE21-T175	6/20/2013	(NA)	17.6
High Flow Event 2	T2R1	13A-CE21-T2R1	6/8/2013	(NA)	8.1
High Flow Event 2	T3R1	13A-CE21-T3R1	6/8/2013	(NA)	11.2
High Flow Event 2	TSR1	13A-CE21-TSR1	6/8/2013	(NA)	15.6
High Flow Event 2	T175	13A-CE22-T175	6/20/2013	(NA)	17.6
High Flow Event 2	TARK	N09-CE03-TARK	6/10/2013	High Slack Tide	(NA)
High Flow Event 2	TKVK	N09-CE03-TKVK	6/10/2013	High Slack Tide	(NA)
High Flow Event 2	THKN	N09-CE11-THKN	6/7/2013	(NA)	(NA)
High Flow Event 2	TNBE	N09-CE11-TNBE	6/8/2013	(NA)	(NA)
High Flow Event 2	TNBN	N09-CE11-TNBN	6/8/2013	(NA)	(NA)
High Flow Event 2	TNBS	N09-CE11-TNBS	6/7/2013	(NA)	(NA)
High Flow Event 2	TNNE	N09-CE11-TNNE	6/8/2013	(NA)	(NA)
High Flow Event 2	TNNW	N09-CE11-TNNW	6/8/2013	(NA)	(NA)
High Flow Event 2	THKN	N09-CE12-THKN	6/7/2013	(NA)	(NA)
High Flow Event 2	TNBE	N09-CE12-TNBE	6/9/2013	(NA)	(NA)
High Flow Event 2	TNBN	N09-CE12-TNBN	6/9/2013	(NA)	(NA)
High Flow Event 2	TNBS	N09-CE12-TNBS	6/9/2013	(NA)	(NA)
High Flow Event 2	TNNE	N09-CE12-TNNE	6/9/2013	(NA)	(NA)
High Flow Event 2	TNNW	N09-CE12-TNNW	6/9/2013	(NA)	(NA)
High Flow Event 2	THKN	N09-CE20-THKN	6/9/2013	(NA)	(NA)
High Flow Event 2	TNBE	N09-CE20-TNBE	6/10/2013	(NA)	(NA)
High Flow Event 2	TNBN	N09-CE20-TNBN	6/10/2013	(NA)	(NA)
High Flow Event 2	TNBS	N09-CE20-TNBS	6/10/2013	(NA)	(NA)
High Flow Event 2	TNNE	N09-CE20-TNNE	6/10/2013	(NA)	(NA)
High Flow Event 2	TNNW	N09-CE20-TNNW	6/10/2013	(NA)	(NA)
High Flow Event 2	THKN	N09-CE21-THKN	6/20/2013	(NA)	(NA)
High Flow Event 2	TNBE	N09-CE21-TNBE	6/21/2013	(NA)	(NA)
High Flow Event 2	TNBN	N09-CE21-TNBN	6/21/2013	(NA)	(NA)
High Flow Event 2	TNBS	N09-CE21-TNBS	6/21/2013	(NA)	(NA)
High Flow Event 2	TNNE	N09-CE21-TNNE	6/21/2013	(NA)	(NA)
High Flow Event 2	TNNW	N09-CE21-TNNW	6/21/2013	(NA)	(NA)

Table 1-3
Summary of sv-CWCM Sampling Events

Event	Station	Location ID	Date	Tide	River Mile
Low Flow/Spring Tide Event	T000	12G-CE01-T000	8/29/2012	Low Slack Tide	0
Low Flow/Spring Tide Event	T014	12G-CE01-T014	8/29/2012	Low Slack Tide	1.4
Low Flow/Spring Tide Event	T102	12G-CE01-T102	8/30/2012	Low Slack Tide	10.2
Low Flow/Spring Tide Event	TTR1	12G-CE01-TTR1	8/30/2012	Low Slack Tide	4.5
Low Flow/Spring Tide Event	TTR2	12G-CE01-TTR2	8/30/2012	Low Slack Tide	3
Low Flow/Spring Tide Event	T000	12G-CE02-T000	8/29/2012	Flood Tide	0
Low Flow/Spring Tide Event	T014	12G-CE02-T014	8/29/2012	Flood Tide	1.4
Low Flow/Spring Tide Event	T102	12G-CE02-T102	8/30/2012	Flood Tide	10.2
Low Flow/Spring Tide Event	TTR1	12G-CE02-TTR1	8/30/2012	Flood Tide	6.7
Low Flow/Spring Tide Event	TTR2	12G-CE02-TTR2	8/30/2012	Flood Tide	3.6
Low Flow/Spring Tide Event	T000	12G-CE03-T000	8/29/2012	High Slack Tide	0
Low Flow/Spring Tide Event	T014	12G-CE03-T014	8/29/2012	High Slack Tide	1.4
Low Flow/Spring Tide Event	T102	12G-CE03-T102	8/30/2012	High Slack Tide	10.2
Low Flow/Spring Tide Event	TTR1	12G-CE03-TTR1	8/30/2012	High Slack Tide	9
Low Flow/Spring Tide Event	TTR2	12G-CE03-TTR2	8/30/2012	High Slack Tide	4.2
Low Flow/Spring Tide Event	T000	12G-CE04-T000	8/29/2012	Ebb Tide	0
Low Flow/Spring Tide Event	T014	12G-CE04-T014	8/29/2012	Ebb Tide	1.4
Low Flow/Spring Tide Event	T102	12G-CE04-T102	8/30/2012	Ebb Tide	10.2
Low Flow/Spring Tide Event	TTR1	12G-CE04-TTR1	8/30/2012	Ebb Tide	6.7
Low Flow/Spring Tide Event	TTR2	12G-CE04-TTR2	8/30/2012	Ebb Tide	3.6
Low Flow/Spring Tide Event	T175	12G-CE05-T175	8/29/2012	(NA)	17.6
Low Flow/Spring Tide Event	T2R1	12G-CE05-T2R1	8/28/2012	(NA)	8.1
Low Flow/Spring Tide Event	T3R1	12G-CE05-T3R1	8/28/2012	(NA)	11.2
Low Flow/Spring Tide Event	TSR1	12G-CE05-TSR1	8/28/2012	(NA)	15.6

Notes:

NA: not applicable

sv-CWCM: small-volume chemical water column monitoring

List of Stations:

T000: Lower Passaic River RM 0	TKVK: Kill van Kull
T014: Lower Passaic River RM 1.4	TNBE: Newark Bay East
T042: Lower Passaic River RM 4.2	TNBN: Newark Bay North
T067: Lower Passaic River RM 6.7	TNBS: Newark Bay South
T102: Lower Passaic River RM 10.2	TNNE: Newark Bay Northeast
T175: Above Dundee Dam	TNNW: Newark Bay Northwest
T2R1: Second River	TSR1: Saddle River
T3R1: Third River	TTR1: Lower Passaic River tidal 1 (approximately 1 mile downstream of the toe of the salt wedge)
TARK: Arthur Kill	TTR2: Lower Passaic River tidal 2 (halfway between the toe of the salt wedge and RM 1.4 up to RM 4.2)
THKN: Hackensack River	

Table 4-1**Octanol-Water Equilibrium Partition Coefficient (K_{ow}) Values Applied in Partitioning Analyses**

Chemical	Log K _{ow} (L/kg)
2,3,7,8-TCDD ¹	6.65
1,2,3,4,6,7,8-HpCDF ¹	8.67
Tetra-CB ¹	6.00
2,3,4,7,8-PeCDF ¹	7.23
1,2,3,7,8-PeCDD ¹	7.37
PCB-126 ¹	6.89
PCB-167 ¹	7.27
Total 4,4'-DDx ¹	6.57
Mercury ²	5.00

Notes:

1. K_{ow} values from Table 3-7 of the 2014 USEPA Focused Feasibility Study model report (LBG et al. 2014, Appendix BIII). In the case of DDx, it represents an average of the log K_{ow} values for the 4,4' isomers.
2. For mercury, value shown is an estimated organic carbon referenced equilibrium partition coefficient, K_{oc} (L/kg), derived from a phytoplankton partitioning study (Pickhardt and Fisher 2007). It is analogous to a K_{ow} for the hydrophobic organic COPCs in that it is taken as representative of Equilibrium Domain partitioning. See Section 4.3 for its derivation and additional discussion.

DDx: the sum of dichlorodiphenyltrichloroethane (DDT) and its breakdown products dichlorodiphenyldichloroethylene (DDE) and dichlorodiphenyldichloroethane (DDD)

HpCDF: Heptachlorodibenzofuran

L/kg: liters per kilogram

PCB: polychlorinated biphenyl

PeCDD: pentachlorodibenzo-p-dioxin

PeCDF: pentachlorodibenzofuran

TCDD: tetrachlorodibenzo-p-dioxin

Tetra-CB: tetrachlorobiphenyl

Table 4-2

Measured POC and Chlorophyll-a Concentrations During the sv-CWCM Events that Best Match the hv-CWCM Events Spatially and Temporally

Location ID	Sample ID	Station	Depth	Corresponding hv-CWCM Events	POC (mg/L)	Chlorophyll-a (mg/m ³)
12H-CE05-T175	12H-CE05-T175-A	T175	Mid	Event 1	0.65 (U)	3.2
12H-CE01-T102	12H-CE01-T102-B	T102	Bottom	Event 1	2.5	4.07
12H-CE02-T102	12H-CE02-T102-B	T102	Bottom	Event 1	3.8	5.18
12H-CE03-T102	12H-CE03-T102-B	T102	Bottom	Event 1	2.5	7.12
12H-CE04-T102	12H-CE04-T102-B	T102	Bottom	Event 1	2.9	4.56
12H-CE01-TTR2	12H-CE01-TTR2-B	TTR2	Bottom	Event 1	1.7	2.97
12H-CE02-TTR2	12H-CE02-TTR2-B	TTR2	Bottom	Event 1	5	3.64
12H-CE03-TTR2	12H-CE03-TTR2-B	TTR2	Bottom	Event 1	2.2	2.59
12H-CE04-TTR2	12H-CE04-TTR2-B	TTR2	Bottom	Event 1	2.3	2.58
N07-CE01-TNBE	N07-CE01-TNBE-A	TNBE	Top	Event 1	0.6 (J)	1.19
N07-CE02-TNBE	N07-CE02-TNBE-A	TNBE	Top	Event 1	0.7 (J)	1.19
N07-CE03-TNBE	N07-CE03-TNBE-A	TNBE	Top	Event 1	0.7 (J)	1
N07-CE04-TNBE	N07-CE04-TNBE-A	TNBE	Top	Event 1	1.3	2.2
N07-CE03-TNBS	N07-CE03-TNBS-B	TNBS	Bottom	Event 1	1.6	1.39
N07-CE01-TNBS	N07-CE01-TNBS-B	TNBS	Bottom	Event 1	0.8 (J)	1.01
N07-CE02-TNBS	N07-CE02-TNBS-B	TNBS	Bottom	Event 1	1.7	1.39
N07-CE04-TNBS	N07-CE04-TNBS-B	TNBS	Bottom	Event 1	1.0 (J)	1.01
N07-CE01-TKVK	N07-CE01-TKVK-B	TKVK	Bottom	Event 1	0.9 (J)	1.39
N07-CE02-TKVK	N07-CE02-TKVK-B	TKVK	Bottom	Event 1	3.9	21.9
N07-CE03-TKVK	N07-CE03-TKVK-B	TKVK	Bottom	Event 1	1.2 (J)	1.17
N07-CE04-TKVK	N07-CE04-TKVK-B	TKVK	Bottom	Event 1	2.2	1.33
13A-CE11-T175	13A-CE11-T175-A	T175	Mid	Event 2	2.1	1.15
13A-CE12-T175	13A-CE12-T175-A	T175	Mid	Event 2	2.8	2.52
13A-CE13-T175	13A-CE13-T175-A	T175	Mid	Event 2	4.1	3.4
13A-CE20-T175	13A-CE20-T175-A	T175	Mid	Event 2	3	2.3
13A-CE21-T175	13A-CE21-T175-A	T175	Mid	Event 2	0.65 (U)	1.15
13A-CE22-T175	13A-CE22-T175-A	T175	Mid	Event 2	0.65 (U)	1.54
13A-CE11-T102	13A-CE11-T102-B	T102	Bottom	Event 2	5.4	4.61
13A-CE12-T102	13A-CE12-T102-B	T102	Bottom	Event 2	6.6	6.9
13A-CE20-T102	13A-CE20-T102-B	T102	Bottom	Event 2	4.3	3.1
13A-CE21-T102	13A-CE21-T102-B	T102	Bottom	Event 2	2.5	2.37
13A-CE11-T042	13A-CE11-T042-B	T042	Bottom	Event 2	3.3	2.86
13A-CE12-T042	13A-CE12-T042-B	T042	Bottom	Event 2	9.7	5.78
13A-CE20-T042	13A-CE20-T042-B	T042	Bottom	Event 2	9.5	3.82
13A-CE21-T042	13A-CE21-T042-B	T042	Bottom	Event 2	2.5	2.01
N09-CE11-TNNE	N09-CE11-TNNE-A	TNNE	Top	Event 2	1.8	1.72
N09-CE12-TNNE	N09-CE12-TNNE-A	TNNE	Top	Event 2	1.5	1.875
N09-CE20-TNNE	N09-CE20-TNNE-A	TNNE	Top	Event 2	1.8	2.98
N09-CE21-TNNE	N09-CE21-TNNE-A	TNNE	Top	Event 2	1.6	1.36
N09-CE12-TNBS	N09-CE12-TNBS-B	TNBS	Bottom	Event 2	1.6	0.58 (J)
N09-CE11-TNBS	N09-CE11-TNBS-B	TNBS	Bottom	Event 2	0.65 (U)	0.96
N09-CE20-TNBS	N09-CE20-TNBS-B	TNBS	Bottom	Event 2	0.65 (U)	0.77

Table 4-2**Measured POC and Chlorophyll-a Concentrations During the sv-CWCM Events that Best Match the hv-CWCM Events Spatially and Temporally**

Location ID	Sample ID	Station	Depth	Corresponding hv-CWCM Events	POC (mg/L)	Chlorophyll-a (mg/m ³)
N09-CE21-TNBS	N09-CE21-TNBS-B	TNBS	Bottom	Event 2	0.8 (J)	1.34
N09-CE03-TKVK	N09-CE03-TKVK-B	TKVK	Bottom	Event 2	0.65 (U)	2.09

Notes:

Duplicate samples averaged.

hv-CWCM: high-volume chemical water column monitoring

J: value is estimated

mg/L: milligrams per liter

mg/m³: milligrams per cubic meter

POC: particulate organic carbon

sv-CWCM: small-volume chemical water column monitoring

U: not detected; value is half the method detection limit

List of Stations:

T042: Lower Passaic River RM 4.2

T102: Lower Passaic River RM 10.2

T175: Above Dundee Dam

TKVK: Kill van Kull

TNBE: Newark Bay East

TNBS: Newark Bay South

TNNE: Newark Bay Northeast

Table 4-3**Average Algal Carbon to Total POC Ratios Used in the hv-CWCM Sorption Analysis**

December 2012, Taken as Representative of hv-CWCM Event 1			June 2013, Taken as Representative of hv-CWCM Event 2		
Station	Average Ratio of Algal Carbon to Total POC	Value	Station	Average Ratio of Algal Carbon to Total POC	Value
T175	0.19	Same as T102	T175	0.08	Mid-depth
T102	0.19	Bottom	T102	0.09	Bottom
T042	0.12	Use TTR2	T042	0.07	Bottom
TNBE	0.17	Top	TNNE	0.12	Top
TNBS	0.10	Bottom	TNBS	0.10	Bottom
TKVK	0.22	Bottom	TKVK	0.10	Same as TNBS

Notes:

Non-detect samples excluded from the analysis

hv-CWCM: high-volume chemical water column monitoring

POC: particulate organic carbon

List of Stations:

T042: Lower Passaic River RM 4.2

T102: Lower Passaic River RM 10.2

T175: Above Dundee Dam

TKVK: Kill van Kull

TNBE: Newark Bay East

TNNE: Newark Bay Northeast

Table 4-4
Calculated Fraction Equilibrium (fE) Values for Each hv-CWCM Station and Event

Chemical	Station	Event	Fraction Dissolved (fD)	POC (mg/L)	Fraction Algal Carbon	Detrital POC (mg/L)	Algal POC (mg/L)	DOC (mg/L)	Temperature (°C)	Salinity (ppt)	Adjusted Log K _{OW} (L/kg)	Adjusted fE
2,3,7,8-TCDD	T175	1	--	1.05	0.19	0.86	0.19	4.75	5.84	0.31	6.65	--
		2	--	ND	0.08	--	--	9.44	24.90	0.20	6.65	--
	T102	1	0.024	2.45	0.19	2.00	0.45	5.41	6.36	0.35	6.65	0.04
		2	0.016	ND	0.09	--	--	19.43	25.25	0.21	6.65	--
	T042	1	0.012	ND	0.12	--	--	4.15	7.49	6.79	6.69	--
		2	0.04	2.28	0.07	2.12	0.15	7.26	23.42	6.79	6.69	0.06
	TNBE	1	0.19	0.98	0.17	0.81	0.17	4.38	4.87	18.71	6.76	0.36
	TNNE	2	0.032	0.95	0.12	0.84	0.11	8.98	21.40	18.78	6.76	0.04
	TNBS	1	0.086	0.60	0.10	0.54	0.06	5.60	5.77	24.81	6.80	0.10
		2	0.12	1.08	0.10	0.97	0.11	25.75	20.16	24.05	6.79	0.13
	TKVK	1	0.030	0.98	0.22	0.76	0.21	2.15	4.98	23.00	6.79	0.05
		2	0.032	1.34	0.10	1.20	0.14	3.34	20.18	22.65	6.79	0.05
Tetra-CB	T175	1	0.36	1.05	0.19	0.86	0.19	4.75	5.84	0.31	5.70	0.45
		2	0.66	ND	0.08	--	--	9.44	24.90	0.20	6.00	-
	T102	1	0.18	2.45	0.19	2.00	0.45	5.41	6.36	0.35	5.71	0.26
		2	0.58	ND	0.09	--	--	19.43	25.25	0.21	6.00	-
	T042	1	0.18	ND	0.12	--	--	4.15	7.49	6.79	5.77	-
		2	0.50	2.28	0.07	2.12	0.15	7.26	23.42	6.79	6.02	1.00
	TNBE	1	0.80	0.98	0.17	0.81	0.17	4.38	4.87	18.71	5.80	1.00
	TNNE	2	0.24	0.95	0.12	0.84	0.11	8.98	21.40	18.78	6.06	0.30
	TNBS	1	0.55	0.60	0.10	0.54	0.06	5.60	5.77	24.81	5.85	0.68
		2	0.57	1.08	0.10	0.97	0.11	25.75	20.16	24.05	6.07	0.73
	TKVK	1	0.23	0.98	0.22	0.76	0.21	2.15	4.98	23.00	5.82	0.30
		2	0.19	1.34	0.10	1.20	0.14	3.34	20.18	22.65	6.06	0.27

Table 4-4
Calculated Fraction Equilibrium (fE) Values for Each hv-CWCM Station and Event

Chemical	Station	Event	Fraction Dissolved (fD)	POC (mg/L)	Fraction Algal Carbon	Detrital POC (mg/L)	Algal POC (mg/L)	DOC (mg/L)	Temperature (°C)	Salinity (ppt)	Adjusted Log K _{OW} (L/kg)	Adjusted fE
1,2,3,4,6,7,8-HpCDF	T175	1	--	1.05	0.19	0.86	0.19	4.75	5.84	0.31	8.67	--
		2	0.014	ND	0.08	--	--	9.44	24.90	0.20	8.67	--
	T102	1	--	2.45	0.19	2.00	0.45	5.41	6.36	0.35	8.67	--
		2	0.0078	ND	0.09	--	--	19.43	25.25	0.21	8.67	--
	T042	1	--	ND	0.12	--	--	4.15	7.49	6.79	8.71	--
		2	0.0044	2.28	0.07	2.12	0.15	7.26	23.42	6.79	8.71	0.0057
	TNBE	1	--	0.98	0.17	0.81	0.17	4.38	4.87	18.71	8.78	--
	TNNE	2	0.0011	0.95	0.12	0.84	0.11	8.98	21.40	18.78	8.78	0.0012
	TNBS	1	--	0.60	0.10	0.54	0.06	5.60	5.77	24.81	8.82	--
		2	0.0096	1.08	0.10	0.97	0.11	25.75	20.16	24.05	8.81	0.010
	TKVK	1	--	0.98	0.22	0.76	0.21	2.15	4.98	23.00	8.81	--
		2	0.0091	1.34	0.10	1.20	0.14	3.34	20.18	22.65	8.81	0.014

Notes:

POC and DOC measured during hv-CWCM program; algal carbon fraction derived from sv-CWCM data.

Samples with non-detect dissolved concentrations and non-detect POC were excluded from the analysis.

Adjusted K_{OW}: K_{OW} values were salinity-corrected for 2378-TCDD, tetra-CB, and 1,2,3,4,6,7,8-HpCDF and salinity- and temperature-corrected for tetra-CB samples with available station/event-specific data.

Adjusted fE: calculated values greater than 1.0 were set to 1.0.

DOC: dissolved organic carbon

HpCDF: Heptachlorodibenzofuran

hv-CWCM: high-volume chemical water column monitoring

L/kg: liters per kilogram

mg/L: milligrams per liter

ND: non-detect

POC: particulate organic carbon

ppt: parts per thousand

sv-CWCM: small-volume chemical water column monitoring

TCDD: tetrachlorodibenzodioxin

Tetra-CB: tetrachlorobiphenyl

List of Stations:

T042: Lower Passaic River RM 4.2

T102: Lower Passaic River RM 10.2

T175: Above Dundee Dam

TKVK: Kill van Kull

TNBE: Newark Bay East

TNBS: Newark Bay South

TNNE: Newark Bay Northeast

Table 4-5**Summary of Fraction Equilibrium (fE) Values Estimated for Primary COPCs from hv-CWCM Data**

Parameter	Mean f_E (CFT Model Input Value)	Range of Estimated f_E Values	Literature Values ¹	Literature Reference
2,3,7,8-TCDD	0.10	0.04 - 0.36 [n=8]	0.33 [0.27 - 0.42; n=4]	Sormunen et al. (2009) ²
			0.19	Sormunen et al. (2008) ² (for 2,3,7,8-TCDF)
			0.06	Sormunen et al. (2008) ² (for TCDFs)
Tetra-CB	0.55	0.26 - 1.0 [n=9]	0.4 [0.49 - 0.31; n=2]	Carroll et al. (1994) data
1,2,3,4,6,7,8-HpCDF	0.008	0.0012 - 0.014 [n=4]	0.032	Van Noort et al. (2014) ²

Notes:

1. Values are averaged f_E derived from literature, with ranges and counts reported in brackets when multiple values.

2. Sum of "rapid" and "slow" fractions

hv-CWCM analysis includes all stations across the Lower Passaic River and Newark Bay.

Non-detects were excluded from the hv-CWCM analysis.

CFT: contaminant fate and transport

hv-CWCM: high-volume chemical water column monitoring

HpCDF: Heptachlorodibenzofuran

TCDD: tetrachlorodibenzo-p-dioxin

TCDF: tetrachlorodibenzofuran

Tetra-CB: tetra-CB: tetrachlorobiphenyl

Table 4-6
Summary of Fraction Equilibrium (f_E) Estimates for Secondary COPCs

COPC	Selected f _E Estimate (CFT Model Input Value)	Basis for f _E Estimate	Literature Values ¹	Literature Reference
PCB-126	0.25	hv-CWCM mean [n=6]	0.4 [0.31 - 0.49; n=2]	Carroll et al. (1994) data
PCB-167	0.21	hv-CWCM mean [n=9]	0.4 [0.31 - 0.491; n=2]	Carroll et al. (1994) data
1,2,3,7,8- PeCDD	0.06	Average of literature estimates for HxCDD congeners (rounded)	0.057 [0.054 – 0.06; n=2]	Van Noort, et al. (2014) ²
2,3,4,7,8- PeCDF	0.07	hv-CWCM mean [n=7]	0.07 [0.085 – 0.056; n=2]	Van Noort, et al. (2014) ² (Average of PeCDF)
Total 4,4'-DDx	0.67	Average of literature estimates for 4,4' DDD, DDE, and DDT isomers	0.67 [0.439 – 0.908; n=23]	Van Noort, et al. (2014) ² (Average of 4,4' DDD, DDE, and DDT isomers)
Mercury	0.04	sv-CWCM analysis; maximum likelihood [n=563]	<0.2	Le Roux et al. (2001) ³

Notes:

1. Values are averaged f_E derived from literature, with ranges and counts reported in brackets when multiple values.

2. Sum of "rapid" and "slow" fractions

3. Le Roux et al. (2001) reported >80% "quasi-irreversible sorption" onto estuarine particles spiked with dissolved mercury.

CFT: contaminant fate and transport

COPC: contaminant of potential concern

DDx: the sum of dichlorodiphenyltrichloroethane (DDT) and its breakdown products dichlorodiphenyldichloroethylene (DDE) and dichlorodiphenyldichloroethane (DDD)

f_E: fraction equilibrium

hv-CWCM: high-volume chemical water column monitoring program

HxCDD: hexachlorodibenzo-p-dioxin

sv-CWCM: small-volume chemical water column monitoring program

PCB: polychlorinated biphenyl

PeCDD: pentachlorodibenzo-p-dioxin

PeCDF: pentachlorodibenzofuran

Table 4-7

Calculated Fraction Equilibrium (f_E) Values for Select Secondary COPCs for Each hv-CWCM Station and Event

Chemical	Station	Event	Fraction Dissolved (f _D)	POC (mg/L)	Fraction Algal Carbon	Detrital POC (mg/L)	Algal POC (mg/L)	DOC (mg/L)	Temperature (°C)	Salinity (ppt)	Adjusted Log K _{OW} (L/kg)	Adjusted f _E
PCB-126	T175	1	-	1.05	0.19	0.86	0.19	4.75	5.84	0.31	6.53	-
		2	0.10	ND	0.08	-	-	9.44	24.90	0.20	6.89	-
	T102	1	-	2.45	0.19	2.00	0.45	5.41	6.36	0.35	6.54	-
		2	0.12	ND	0.09	-	-	19.43	25.25	0.21	6.90	-
	T042	1	-	ND	0.12	-	-	4.15	7.49	6.79	6.61	-
		2	-	2.28	0.07	2.12	0.15	7.26	23.42	6.79	6.90	-
	TNBE	1	0.41	0.98	0.17	0.81	0.17	4.38	4.87	18.71	6.62	1.00
	TNNE	2	0.04	0.95	0.12	0.84	0.11	8.98	21.40	18.78	6.94	0.04
	TNBS	1	0.05	0.60	0.10	0.54	0.06	5.60	5.77	24.81	6.68	0.06
		2	0.22	1.08	0.10	0.97	0.11	25.75	20.16	24.05	6.95	0.26
PCB-167	T175	1	0.03	1.05	0.19	0.86	0.19	4.75	5.84	0.31	6.92	0.04
		2	0.22	ND	0.08	-	-	9.44	24.90	0.20	7.27	-
	T102	1	0.02	2.45	0.19	2.00	0.45	5.41	6.36	0.35	6.93	0.05
		2	0.15	ND	0.09	-	-	19.43	25.25	0.21	7.28	-
	T042	1	0.02	ND	0.12	-	-	4.15	7.49	6.79	6.99	-
		2	0.05	2.28	0.07	2.12	0.15	7.26	23.42	6.79	7.28	0.07
	TNBE	1	0.45	0.98	0.17	0.81	0.17	4.38	4.87	18.71	7.01	1.00
	TNNE	2	0.04	0.95	0.12	0.84	0.11	8.98	21.40	18.78	7.32	0.05
	TNBS	1	0.16	0.60	0.10	0.54	0.06	5.60	5.77	24.81	7.06	0.21
		2	0.25	1.08	0.10	0.97	0.11	25.75	20.16	24.05	7.33	0.30
1,2,3,7,8-PeCDD	T175	1	0.16	1.05	0.19	0.86	0.19	4.75	5.84	0.31	7.37	0.33
		2	-	ND	0.08	-	-	9.44	24.90	0.20	7.37	-
	T102	1	-	2.45	0.19	2.00	0.45	5.41	6.36	0.35	7.37	-
		2	-	ND	0.09	-	-	19.43	25.25	0.21	7.37	-
	T042	1	-	ND	0.12	-	-	4.15	7.49	6.79	7.41	-
		2	-	2.28	0.07	2.12	0.15	7.26	23.42	6.79	7.41	-
	TNBE	1	-	0.98	0.17	0.81	0.17	4.38	4.87	18.71	7.48	-
	TNNE	2	-	0.95	0.12	0.84	0.11	8.98	21.40	18.78	7.48	-
	TNBS	1	-	0.60	0.10	0.54	0.06	5.60	5.77	24.81	7.52	-
		2	-	1.08	0.10	0.97	0.11	25.75	20.16	24.05	7.51	-
	TKVK	1	-	0.98	0.22	0.76	0.21	2.15	4.98	23.00	7.51	-
		2	-	1.34	0.10	1.20	0.14	3.34	20.18	22.65	7.51	-

Table 4-7**Calculated Fraction Equilibrium (f_E) Values for Select Secondary COPCs for Each hv-CWCM Station and Event**

Chemical	Station	Event	Fraction Dissolved (f _D)	POC (mg/L)	Fraction Algal Carbon	Detrital POC (mg/L)	Algal POC (mg/L)	DOC (mg/L)	Temperature (°C)	Salinity (ppt)	Adjusted Log K _{OW} (L/kg)	Adjusted f _E
2,3,4,7,8-PeCDF	T175	1	0.09	1.05	0.19	0.86	0.19	4.75	5.84	0.31	7.23	0.15
		2	0.11	ND	0.08	-	-	9.44	24.90	0.20	7.23	-
	T102	1	0.01	2.45	0.19	2.00	0.45	5.41	6.36	0.35	7.23	0.03
		2	0.10	ND	0.09	-	-	19.43	25.25	0.21	7.23	-
	T042	1	0.02	ND	0.12	-	-	4.15	7.49	6.79	7.27	-
		2	0.04	2.28	0.07	2.12	0.15	7.26	23.42	6.79	7.27	0.06
	TNBE	1	-	0.98	0.17	0.81	0.17	4.38	4.87	18.71	7.34	-
	TNNE	2	0.01	0.95	0.12	0.84	0.11	8.98	21.40	18.78	7.34	0.02
	TNBS	1	-	0.60	0.10	0.54	0.06	5.60	5.77	24.81	7.38	-
		2	0.06	1.08	0.10	0.97	0.11	25.75	20.16	24.05	7.37	0.07
	TKVK	1	0.03	0.98	0.22	0.76	0.21	2.15	4.98	23.00	7.37	0.07
		2	0.04	1.34	0.10	1.20	0.14	3.34	20.18	22.65	7.37	0.08

Notes:

POC and DOC measured during hv-CWCM program; algal carbon fraction derived from sv-CWCM data.

Samples with non-detect dissolved concentrations and non-detect POC were excluded from the analysis.

Adjusted K_{OW}: K_{OW} values were salinity-corrected for 1,2,3,7,8-PeCDD and 2,3,4,7,8-PeCDF and salinity- and temperature-corrected for PCB-126 and PCB-167 samples with available station/event-specific data.

Adjusted f_E: calculated values greater than 1.0 were set to 1.0.

COPC: contaminant of potential concern

DOC: dissolved organic carbon

hv-CWCM: high-volume chemical water column monitoring

L/kg: liter per kilogram

mg/L: milligram per liter

ND: non-detect

PCB: polychlorinated biphenyl

PeCDD: pentachlorodibenzo-p-dioxin

PeCDF: pentachlorodibenzofuran

POC: particulate organic carbon

ppt: parts per thousand

List of Stations:

T042: Lower Passaic River RM 4.2

T102: Lower Passaic River RM 10.2

T175: Above Dundee Dam

TKVK: Kill van Kull

TNBE: Newark Bay East

TNBS: Newark Bay South

TNNE: Newark Bay Northeast

Table 4-8**Mercury Algal Partitioning Data and Estimated Organic Carbon Partition Coefficients**

Algal Species (Class)	Mercury VCF¹ (L water/L cell)	Cellular Carbon Content² (g C/L cell)	Estimated K_{OC} 10⁵ L/kg C
<i>Cyclotella meneghinia</i> (Bacillariophyceae)	4,300; 8,600	68	0.63; 1.3
<i>Chlamydomonas reinhardtii</i> (Chlorophyceae)	20,800; 23,900	140	1.5; 1.7
<i>Cryptomonas ozolini</i> (Cryptophyceae)	43,600; 49,500	420	1.0; 1.2

Notes:

1. Mean mercury volume concentration factors (VCFs) shown are from two waterbodies in the San Francisco Bay Watershed (Pickhardt and Fischer 2007).

2. Cellular carbon content is the algal class mean from Moal et al. (1987)

g C/L: gram carbon per liter

K_{OC}: carbon-referenced sorption partition coefficient

L: liter

L/kg C: liter per gram carbon

Table 4-9

Calculated Fraction Equilibrium (fE) Values for Mercury for Each sv-CWCM Station and Event

Sample ID	Station	Event	Fraction Dissolved (fD)	POC (mg/L)	Detrital POC (mg/L)	Algal POC (mg/L)	DOC (mg/L)	Adjusted fE
11A-CE01-T000-A	T000	11A-CE01	0.094	0.9	0.64	0.26	4.12	0.10
11A-CE01-T000-B	T000	11A-CE01	0.15	1.2	1.04	0.16	3.3	0.17
11A-CE01-T014-A	T014	11A-CE01	0.104	1.7	1.09	0.61	4.43	0.12
11A-CE01-T014-B	T014	11A-CE01	0.069	2	1.61	0.39	3.76	0.08
11A-CE01-T102-A	T102	11A-CE01	0.052	2.6	1.9	0.7	4.9	0.06
11A-CE01-T102-B	T102	11A-CE01	0.059	4.8	3.4	1.4	4.99	0.08
11A-CE01-TTR1-A	TTR1	11A-CE01	0.035	2.6	1.9	0.7	4.7	0.04
11A-CE01-TTR1-B	TTR1	11A-CE01	0.009	8.3	7.19	1.11	4.7	0.01
11A-CE01-TTR2-A	TTR2	11A-CE01	0.114	1.8	1.03	0.77	4.32	0.14
11A-CE01-TTR2-B	TTR2	11A-CE01	0.015	3.3	2.7	0.6	4.36	0.02
11A-CE02-T000-A	T000	11A-CE02	0.13	0.8	0.7	0.1	3.58	0.14
11A-CE02-T000-B	T000	11A-CE02	0.076	0.9	0.83	0.07	2.87	0.08
11A-CE02-T014-A	T014	11A-CE02	0.288	1.1	0.74	0.36	3.88	0.36
11A-CE02-T014-B	T014	11A-CE02	0.076	4.4	4.14	0.26	3.64	0.11
11A-CE02-T102-A	T102	11A-CE02	0.39	1.5	0.65	0.85	4.27	0.53
11A-CE02-T102-B	T102	11A-CE02		2.8	2.27	0.53	4.79	
11A-CE02-TTR1-A	TTR1	11A-CE02	0.024	3.3	2.82	0.48	4.18	0.03
11A-CE02-TTR1-B	TTR1	11A-CE02	0.219	4.6	3.43	1.17	4.57	0.65
11A-CE02-TTR2-A	TTR2	11A-CE02	0.023	1.45	0.93	0.52	4.17	0.02
11A-CE02-TTR2-B	TTR2	11A-CE02	0.018	10.9	9.44	1.46	4.13	0.02
11A-CE03-T000-A	T000	11A-CE03	0.282	0.2	0	0.2	3.33	0.29
11A-CE03-T000-B	T000	11A-CE03	0.043	0.3	0.17	0.13	2.54	0.04
11A-CE03-T014-A	T014	11A-CE03	0.082	0.9	0.6	0.3	3.49	0.09
11A-CE03-T014-B	T014	11A-CE03	0.03	0.9	0.7	0.2	2.76	0.03
11A-CE03-T102-A	T102	11A-CE03	0.093	1.4	0.88	0.52	4.61	0.10
11A-CE03-T102-B	T102	11A-CE03	0.058	1.9	1.27	0.63	4.36	0.07
11A-CE03-TTR1-A	TTR1	11A-CE03	0.066	1.6	0.92	0.68	4.38	0.07
11A-CE03-TTR1-B	TTR1	11A-CE03	0.11	1.7	0.92	0.78	4.33	0.13
11A-CE03-TTR2-A	TTR2	11A-CE03	0.119	1.5	0.88	0.62	4.17	0.14
11A-CE03-TTR2-B	TTR2	11A-CE03	0.013	2.3	1.77	0.53	3.39	0.01
11A-CE04-T000-A	T000	11A-CE04	0.111	1.5	1.13	0.37	4.46	0.13
11A-CE04-T000-B	T000	11A-CE04	0.058	1	0.61	0.39	3.34	0.06
11A-CE04-T014-A	T014	11A-CE04	0.029	1.8	1.41	0.39	4.16	0.03
11A-CE04-T014-B	T014	11A-CE04	0.087	1.3	0.91	0.39	3.59	0.10
11A-CE04-T102-A	T102	11A-CE04	0.034	4	3.32	0.68	4.82	0.04
11A-CE04-T102-B	T102	11A-CE04	0.022	3.9	2.86	1.04	4.34	0.02
11A-CE04-TTR1-A	TTR1	11A-CE04	0.051	4.2	3.68	0.52	4.54	0.06
11A-CE04-TTR1-B	TTR1	11A-CE04	0.026	8.8	7.82	0.98	4.35	0.03
11A-CE04-TTR2-A	TTR2	11A-CE04	0.045	6.8	6.07	0.73	4.6	0.06
11A-CE04-TTR2-B	TTR2	11A-CE04	0.01	5.2	4.37	0.83	3.72	0.01
11A-CE05-T2R1-A	T2R1	11A-CE05	0.319	0.6	0.116	0.484	4.89	0.34
11A-CE05-T3R1-A	T3R1	11A-CE05	0.357	0.3	0.22	0.08	3.53	0.39
11A-CE05-TSR1-A	TSR1	11A-CE05	0.359	4.6	4.063	0.537	5.51	
12B-CE01-T000-A	T000	12B-CE01	0.02	1.4	1.02	0.38	1.27	0.02

Table 4-9

Calculated Fraction Equilibrium (fE) Values for Mercury for Each sv-CWCM Station and Event

Sample ID	Station	Event	Fraction Dissolved (fD)	POC (mg/L)	Detrital POC (mg/L)	Algal POC (mg/L)	DOC (mg/L)	Adjusted fE
12B-CE01-T000-B	T000	12B-CE01	0.009	3.4	3.075	0.325	0.99	0.01
12B-CE01-T014-A	T014	12B-CE01	0.357	1.4	0.62	0.78	1.89	0.47
12B-CE01-T014-B	T014	12B-CE01	0.017	1.4	0.87	0.53	1.34	0.02
12B-CE01-TTR1-A	TTR1	12B-CE01	0.017	1.9	0.72	1.18	2.71	0.02
12B-CE01-TTR1-B	TTR1	12B-CE01	0.013	1.8	1.16	0.64	1.4	0.01
12B-CE01-TTR2-B	TTR2	12B-CE01	0.193	1.4	1.06	0.34	1.04	0.24
12B-CE02-T000-A	T000	12B-CE02	0.397	0.9	0.71	0.19	0.6	0.53
12B-CE02-T000-B	T000	12B-CE02	0.074	1.5	1.24	0.26	0.42	0.08
12B-CE02-T014-A	T014	12B-CE02	0.017	1.2	0.88	0.32	1.01	0.02
12B-CE02-T014-B	T014	12B-CE02	0.033	3.55	3.255	0.295	0.695	0.04
12B-CE02-TTR1-A	TTR1	12B-CE02	0.055	1.9	1.08	0.82	2.11	0.06
12B-CE02-TTR1-B	TTR1	12B-CE02	0.088	4	3.25	0.75	2.38	0.12
12B-CE02-TTR2-A	TTR2	12B-CE02	0.009	1.4	1.07	0.33	1.17	0.01
12B-CE02-TTR2-B	TTR2	12B-CE02	0.002	7.7	7.37	0.33	0.77	0.00
12B-CE03-T000-A	T000	12B-CE03	0.016	1.3	1.01	0.29	0.41	0.02
12B-CE03-T000-B	T000	12B-CE03	0.034	1.2	0.97	0.23	0.44	0.04
12B-CE03-T014-A	T014	12B-CE03	0.281	1.2	0.96	0.24	0.66	0.37
12B-CE03-TTR1-B	TTR1	12B-CE03	0.032	2.3	1.55	0.75	2.51	0.04
12B-CE03-TTR2-A	TTR2	12B-CE03	0.103	1.5	1.03	0.47	1.19	0.12
12B-CE03-TTR2-B	TTR2	12B-CE03	0.027	1.6	1.29	0.31	0.835	0.03
12B-CE04-T000-A	T000	12B-CE04	0.061	1.3	0.96	0.34	0.8	0.07
12B-CE04-T000-B	T000	12B-CE04	0.008	1.3	1.09	0.21	0.44	0.01
12B-CE04-T014-A	T014	12B-CE04	0.089	1.6	1.119	0.481	1.16	0.10
12B-CE04-T014-B	T014	12B-CE04	0.083	1.4	1.163	0.237	0.88	0.09
12B-CE04-TTR1-A	TTR1	12B-CE04	0.17	1.7	0.54	1.16	2.48	0.21
12B-CE04-TTR2-A	TTR2	12B-CE04	0.015	1.6	1.16	0.44	2.06	0.02
12B-CE04-TTR2-B	TTR2	12B-CE04	0.054	3.1	2.84	0.26	0.83	0.06
12B-CE05-TSR1-A	TSR1	12B-CE05	0.299	1.3	0.72	0.58	2.6	0.39
12C-CE11-T014-A	T014	12C-CE11	0.086	1.4	0.997	0.403	2.8	0.10
12C-CE11-T014-B	T014	12C-CE11	0.6	1.3	0.957	0.343	2.1	1.00
12C-CE11-T042-A	T042	12C-CE11	0.104	3.5	2.91	0.59	2.89	0.15
12C-CE11-T042-B	T042	12C-CE11	0.051	7.6	6.882	0.718	2.89	0.08
12C-CE11-T067-A	T067	12C-CE11	0.306	3.9	2.976	0.924	2.85	1.00
12C-CE11-T067-B	T067	12C-CE11	0.079	2.4	1.527	0.873	2.95	0.10
12C-CE11-T102-A	T102	12C-CE11	0.094	3	1.74	1.26	2.87	0.12
12C-CE11-T102-B	T102	12C-CE11	0.282	2	1.199	0.801	2.77	0.42
12C-CE11-T175-A	T175	12C-CE11	0.164	2.4	1.07	1.33	2.82	0.22
12C-CE11-T2R1-A	T2R1	12C-CE11	0.167	9.5	5.31	4.19	3.26	0.91
12C-CE11-T3R1-A	T3R1	12C-CE11	0.411	1	0	1	1.96	0.45
12C-CE11-TSR1-A	TSR1	12C-CE11	0.881	1.9	0	1.9	2.9	1.00
12C-CE12-T014-A	T014	12C-CE12	0.027	1.4	1.168	0.232	2.4	0.03
12C-CE12-T014-B	T014	12C-CE12	0.096	1.6	1.325	0.275	2.3	0.11
12C-CE12-T042-A	T042	12C-CE12	0.108	3.4	2.684	0.716	2.84	0.15
12C-CE12-T042-B	T042	12C-CE12	0.023	3.5	3.023	0.477	2.7	0.03

Table 4-9

Calculated Fraction Equilibrium (fE) Values for Mercury for Each sv-CWCM Station and Event

Sample ID	Station	Event	Fraction Dissolved (fD)	POC (mg/L)	Detrital POC (mg/L)	Algal POC (mg/L)	DOC (mg/L)	Adjusted fE
12C-CE12-T067-A	T067	12C-CE12	0.145	1.7	1.257	0.443	3.075	0.18
12C-CE12-T067-B	T067	12C-CE12	0.244	2.3	1.6	0.7	2.87	0.39
12C-CE12-T102-A	T102	12C-CE12	0.187	1.7	0.749	0.951	2.84	0.23
12C-CE12-T102-B	T102	12C-CE12	0.168	1.8	0.893	0.907	2.87	0.21
12C-CE12-T175-A	T175	12C-CE12	0.136	3.1	1.41	1.69	3.07	0.19
12C-CE12-T2R1-A	T2R1	12C-CE12	0.116	9.3	7.63	1.67	1.57	0.54
12C-CE12-T3R1-A	T3R1	12C-CE12	0.039	9.8	4.72	5.08	1.92	0.07
12C-CE12-TSR1-A	TSR1	12C-CE12	0.165	8	1.13	6.87	2.26	0.33
12C-CE13-T175-A	T175	12C-CE13	0.228	2.9	1.32	1.58	3.22	0.35
12C-CE20-T000-A	T000	12C-CE20	0.132	1.9	1.402	0.498	3	0.16
12C-CE20-T000-B	T000	12C-CE20	0.112	1.6	1.235	0.365	2.2	0.13
12C-CE20-T014-A	T014	12C-CE20	0.038	1.9	1.276	0.624	3	0.04
12C-CE20-T014-B	T014	12C-CE20	0.016	1.6	1.177	0.423	2.5	0.02
12C-CE20-T042-A	T042	12C-CE20	0.035	3.6	2.59	1.01	3.36	0.04
12C-CE20-T042-B	T042	12C-CE20	0.084	4.5	3.44	1.06	3.26	0.12
12C-CE20-T067-A	T067	12C-CE20	0.041	3.5	2.38	1.12	3.28	0.05
12C-CE20-T067-B	T067	12C-CE20	0.031	5.5	4.14	1.36	3.37	0.04
12C-CE20-T102-A	T102	12C-CE20	0.109	2.7	1.28	1.42	3.41	0.14
12C-CE20-T102-B	T102	12C-CE20	0.107	2.3	1.11	1.19	3.42	0.13
12C-CE20-T175-A	T175	12C-CE20	0.188	2.2	0.96	1.24	3.17	0.25
12C-CE20-T2R1-A	T2R1	12C-CE20	0.392	5.9	5.456	0.444	2.57	
12C-CE20-T3R1-A	T3R1	12C-CE20	0.08	6	3.45	2.55	2.27	0.13
12C-CE20-TSR1-A	TSR1	12C-CE20	0.08	7.5	1.34	6.16	2.68	0.14
12C-CE21-T000-A	T000	12C-CE21	0.156	1.2	0.755	0.445	2.3	0.18
12C-CE21-T000-B	T000	12C-CE21	0.105	0.9	0.342	0.558	2.1	0.11
12C-CE21-T014-A	T014	12C-CE21	0.086	2.1	1.538	0.562	2.4	0.10
12C-CE21-T014-B	T014	12C-CE21	0.054	1.2	0.832	0.368	3.1	0.06
12C-CE21-T042-A	T042	12C-CE21	0.431	0.9	0.279	0.621	3.15	0.51
12C-CE21-T042-B	T042	12C-CE21	0.258	3	1.99	1.01	2.8	0.50
12C-CE21-T067-A	T067	12C-CE21	0.212	1	0.324	0.676	3.19	0.24
12C-CE21-T067-B	T067	12C-CE21	0.096	1.3	0.753	0.547	3.16	0.11
12C-CE21-T102-A	T102	12C-CE21	0.344	0.9	0.319	0.581	3.37	0.40
12C-CE21-T102-B	T102	12C-CE21	0.149	1.1	0.502	0.598	3.27	0.17
12C-CE21-T175-A	T175	12C-CE21	0.368	1.9	1.376	0.524	3.27	0.67
12C-CE21-T2R1-A	T2R1	12C-CE21	0.138	5.15	4.7845	0.3655	2.795	0.32
12C-CE21-T3R1-A	T3R1	12C-CE21	0.228	4.4	2.52	1.88	2.34	0.52
12C-CE21-TSR1-A	TSR1	12C-CE21	0.223	4.2	2.07	2.13	3.71	0.44
12C-CE22-T175-A	T175	12C-CE22	0.393	0.8	0.232	0.568	3.34	0.45
12D-CE01-T000-A	T000	12D-CE01	0.099	1.4	0.88	0.52	2.4	0.11
12D-CE01-T000-B	T000	12D-CE01	0.021	0.9	0.39	0.51	2.2	0.02
12D-CE01-T014-A	T014	12D-CE01	0.215	2.2	0	2.2	3.6	0.26
12D-CE01-T014-B	T014	12D-CE01	0.046	1.8	0.8	1	2.5	0.05
12D-CE01-T102-A	T102	12D-CE01	0.055	2.4	0	2.4	3.75	0.07
12D-CE01-T102-B	T102	12D-CE01	0.06	2.5	0	2.5	3.74	0.08

Table 4-9

Calculated Fraction Equilibrium (fE) Values for Mercury for Each sv-CWCM Station and Event

Sample ID	Station	Event	Fraction Dissolved (fD)	POC (mg/L)	Detrital POC (mg/L)	Algal POC (mg/L)	DOC (mg/L)	Adjusted fE
12D-CE01-TTR1-A	TTR1	12D-CE01	0.176	3.3	0	3.3	3.6	0.23
12D-CE01-TTR1-B	TTR1	12D-CE01	0.129	2.7	0	2.7	3.6	0.16
12D-CE01-TTR2-A	TTR2	12D-CE01	0.1	2.1	0	2.1	3.4	0.12
12D-CE01-TTR2-B	TTR2	12D-CE01	0.065	2.4	0	2.4	3.4	0.08
12D-CE02-T000-A	T000	12D-CE02	0.069	0.5	0.07	0.43	2.1	0.07
12D-CE02-T000-B	T000	12D-CE02	0.063	1.3	0.97	0.33	1.9	0.07
12D-CE02-T014-B	T014	12D-CE02	0.068	1.4	0.91	0.49	2.4	0.08
12D-CE02-T102-A	T102	12D-CE02	0.188	3.5	0	3.5	3.82	0.25
12D-CE02-T102-B	T102	12D-CE02	0.011	4.6	0	4.6	3.82	0.02
12D-CE02-TTR1-A	TTR1	12D-CE02	0.215	2.85	0	2.85	3.4	0.28
12D-CE02-TTR1-B	TTR1	12D-CE02	0.178	2.7	0	2.7	3.5	0.23
12D-CE02-TTR2-A	TTR2	12D-CE02	0.126	1.8	0	1.8	3	0.15
12D-CE02-TTR2-B	TTR2	12D-CE02	0.003	3.9	2	1.9	2.6	0.00
12D-CE03-T000-A	T000	12D-CE03	0.304	0.6	0.16	0.44	2.1	0.33
12D-CE03-T000-B	T000	12D-CE03		1.1	0.9	0.2	1.8	
12D-CE03-T102-A	T102	12D-CE03	0.019	2.6	0	2.6	3.24	0.02
12D-CE03-T102-B	T102	12D-CE03	0.022	2.8	0	2.8	3.77	0.03
12D-CE03-TTR1-A	TTR1	12D-CE03	0.084	2.6	0	2.6	3.5	0.11
12D-CE03-TTR1-B	TTR1	12D-CE03	0.075	2.3	0	2.3	3.6	0.09
12D-CE03-TTR2-A	TTR2	12D-CE03	0.136	2.5	0	2.5	3.2	0.17
12D-CE03-TTR2-B	TTR2	12D-CE03	0.054	1.3	0.05	1.25	2.7	0.06
12D-CE04-T000-A	T000	12D-CE04	0.061	1.7	0.34	1.36	2.4	0.07
12D-CE04-T000-B	T000	12D-CE04	0.015	0.6	0.27	0.33	2.1	0.02
12D-CE04-T014-A	T014	12D-CE04	0.144	1.5	0	1.5	2.8	0.16
12D-CE04-T102-A	T102	12D-CE04	0.035	3.4	0	3.4	3.73	0.05
12D-CE04-T102-B	T102	12D-CE04	0.388	2.9	0	2.9	3.61	0.50
12D-CE04-TTR1-A	TTR1	12D-CE04	0.195	4.3	0	4.3	3.53	0.28
12D-CE04-TTR1-B	TTR1	12D-CE04	0.08	2.1	0	2.1	3.5	0.10
12D-CE04-TTR2-A	TTR2	12D-CE04	0.075	2.2	0	2.2	3.6	0.09
12D-CE04-TTR2-B	TTR2	12D-CE04	0.467	3.6	0.98	2.62	2.6	0.96
12D-CE05-T175-A	T175	12D-CE05	0.058	2	0	2	3.77	0.07
12D-CE05-T2R1-A	T2R1	12D-CE05	0.591	0.8	0	0.8	2.36	0.64
12D-CE05-T3R1-A	T3R1	12D-CE05	0.346	1.5	0	1.5	2	0.40
12F-CE01-T000-A	T000	12F-CE01	0.021	1.6	1.303	0.297	2.46	0.02
12F-CE01-T014-A	T014	12F-CE01	0.25	1.4	1.09	0.31	4.19	0.33
12F-CE01-T014-B	T014	12F-CE01	0.042	1.6	1.37	0.23	3.7	0.04
12F-CE01-T102-A	T102	12F-CE01	0.041	2.6	2.309	0.291	5.12	0.05
12F-CE01-T102-B	T102	12F-CE01	0.082	2.7	2.329	0.371	5.26	0.10
12F-CE01-TTR1-A	TTR1	12F-CE01	0.007	3.5	2.94	0.56	4.25	0.01
12F-CE01-TTR1-B	TTR1	12F-CE01	0.068	4.6	3.96	0.64	4.08	0.09
12F-CE01-TTR2-A	TTR2	12F-CE01	0.034	2.5	2.22	0.28	3.83	0.04
12F-CE01-TTR2-B	TTR2	12F-CE01	0.16	2.2	1.75	0.45	3.61	0.22
12F-CE02-T014-B	T014	12F-CE02	0.231	3.1	2.78	0.32	1.41	0.53
12F-CE02-T102-A	T102	12F-CE02	0.016	3.1	2.754	0.346	5.29	0.02

Table 4-9

Calculated Fraction Equilibrium (fE) Values for Mercury for Each sv-CWCM Station and Event

Sample ID	Station	Event	Fraction Dissolved (fD)	POC (mg/L)	Detrital POC (mg/L)	Algal POC (mg/L)	DOC (mg/L)	Adjusted fE
12F-CE02-T102-B	T102	12F-CE02	0.047	4.6	4.211	0.389	5.26	0.06
12F-CE02-TTR1-A	TTR1	12F-CE02	0.033	4.5	3.96	0.54	4.43	0.04
12F-CE02-TTR1-B	TTR1	12F-CE02	0.031	9.2	8.35	0.85	4.47	0.04
12F-CE02-TTR2-A	TTR2	12F-CE02	0.073	1.8	1.55	0.25	2.91	0.08
12F-CE02-TTR2-B	TTR2	12F-CE02	0.001	7.9	7.27	0.63	1.93	0.00
12F-CE03-T102-A	T102	12F-CE03	0.029	1.4	1.087	0.313	5.56	0.03
12F-CE03-T102-B	T102	12F-CE03	0.021	1.7	1.41	0.29	5.3	0.02
12F-CE03-TTR1-A	TTR1	12F-CE03	0.02	2.6	2.21	0.39	4.93	0.02
12F-CE03-TTR1-B	TTR1	12F-CE03	0.005	5.2	4.43	0.77	4.7	0.01
12F-CE03-TTR2-A	TTR2	12F-CE03	0.062	1.6	1.37	0.23	2.45	0.07
12F-CE03-TTR2-B	TTR2	12F-CE03	0.046	2.3	2.09	0.21	1.38	0.05
12F-CE04-T014-A	T014	12F-CE04	0.123	1.9	1.57	0.33	1.86	0.15
12F-CE04-T014-B	T014	12F-CE04	0.252	1.8	1.61	0.19	1.04	0.39
12F-CE04-T102-A	T102	12F-CE04	0.025	2.8	2.468	0.332	5.3	0.03
12F-CE04-T102-B	T102	12F-CE04	0.074	2.2	1.851	0.349	5.18	0.09
12F-CE04-TTR1-A	TTR1	12F-CE04	0.24	2.7	2.18	0.52	4.05	0.45
12F-CE04-TTR1-B	TTR1	12F-CE04	0.032	7.9	7.36	0.54	2.97	0.04
12F-CE04-TTR2-A	TTR2	12F-CE04	0.01	2.4	2.15	0.25	3.02	0.01
12F-CE04-TTR2-B	TTR2	12F-CE04	0.071	3.5	3.32	0.18	1.44	0.09
12F-CE05-T175-A	T175	12F-CE05	0.154	1.5	1.361	0.139	5.66	0.19
12F-CE05-TSR1-A	TSR1	12F-CE05	0.164	2.9	2.587	0.313	4.21	0.26
12G-CE01-T000-A	T000	12G-CE01	0.036	0.8	0.394	0.406	3.9	0.04
12G-CE01-T000-B	T000	12G-CE01	0.123	0.6	0.446	0.154	3.4	0.13
12G-CE01-T014-A	T014	12G-CE01	0.014	1	0.48	0.52	4.1	0.01
12G-CE01-T014-B	T014	12G-CE01	0.057	0.5	0.15	0.35	3.4	0.06
12G-CE01-T102-A	T102	12G-CE01	0.086	1.7	0	1.7	4.1	0.10
12G-CE01-T102-B	T102	12G-CE01	0.027	3	1.24	1.76	4.3	0.03
12G-CE01-TTR1-A	TTR1	12G-CE01	0.251	1.7	0	1.7	3.6	0.29
12G-CE01-TTR1-B	TTR1	12G-CE01	0.099	1.6	0	1.6	3.5	0.11
12G-CE01-TTR2-A	TTR2	12G-CE01	0.043	1.5	0	1.5	3.6	0.05
12G-CE02-T000-B	T000	12G-CE02	0.037	1.8	1.606	0.194	2.7	0.04
12G-CE02-T014-A	T014	12G-CE02	0.106	0.7	0.337	0.363	3.2	0.11
12G-CE02-T014-B	T014	12G-CE02	0.154	2.1	1.82	0.28	3.2	0.21
12G-CE02-T102-A	T102	12G-CE02	0.09	5.4	2.7	2.7	3.66	0.14
12G-CE02-T102-B	T102	12G-CE02	0.006	11.2	8.34	2.86	3.5	0.01
12G-CE02-TTR1-A	TTR1	12G-CE02	0.226	2.5	0.545	1.955	3.65	0.30
12G-CE02-TTR1-B	TTR1	12G-CE02	0.283	6.1	3.69	2.41	3.6	1.00
12G-CE02-TTR2-B	TTR2	12G-CE02	0.054	5.6	4.98	0.62	3.3	0.07
12G-CE03-T014-A	T014	12G-CE03	0.03	0.5	0.227	0.273	2.8	0.03
12G-CE03-T014-B	T014	12G-CE03	0.087	0.8	0.563	0.237	2.4	0.09
12G-CE03-T102-A	T102	12G-CE03	0.097	1.4	0	1.4	3.53	0.11
12G-CE03-T102-B	T102	12G-CE03	0.085	1.7	0	1.7	3.54	0.10
12G-CE03-TTR1-A	TTR1	12G-CE03	0.018	1.4	0	1.4	3.6	0.02
12G-CE03-TTR1-B	TTR1	12G-CE03	0.282	1.6	0	1.6	3.7	0.33

Table 4-9

Calculated Fraction Equilibrium (fE) Values for Mercury for Each sv-CWCM Station and Event

Sample ID	Station	Event	Fraction Dissolved (fD)	POC (mg/L)	Detrital POC (mg/L)	Algal POC (mg/L)	DOC (mg/L)	Adjusted fE
12G-CE04-T000-A	T000	12G-CE04	0.084	1	0.848	0.152	2.9	0.09
12G-CE04-T000-B	T000	12G-CE04	0.062	0.7	0.437	0.263	2.5	0.07
12G-CE04-T014-A	T014	12G-CE04	0.012	0.9	0.615	0.285	3.2	0.01
12G-CE04-T014-B	T014	12G-CE04	0.041	0.6	0.277	0.323	2.8	0.04
12G-CE04-T102-A	T102	12G-CE04	0.382	2.8	0.81	1.99	3.57	0.62
12G-CE04-T102-B	T102	12G-CE04	0.169	2.7	0.79	1.91	3.4	0.23
12G-CE04-TTR1-B	TTR1	12G-CE04	0.034	2	0.73	1.27	3.4	0.04
12G-CE05-T175-A	T175	12G-CE05	0.116	1	0.685	0.315	3.91	0.13
12G-CE05-T2R1-A	T2R1	12G-CE05	0.335	1	0.652	0.348	4.48	0.42
12G-CE05-T3R1-A	T3R1	12G-CE05	0.157	1.5	0.32	1.18	2.79	0.18
12G-CE05-TSR1-A	TSR1	12G-CE05	0.298	1.7	1.232	0.468	3.69	0.45
12H-CE01-T000-B	T000	12H-CE01	0.009	1.3	1.137	0.163	3.2	0.01
12H-CE01-T014-A	T014	12H-CE01	0.033	1.5	0.958	0.542	4	0.04
12H-CE01-T014-B	T014	12H-CE01	0.041	2.1	1.68	0.42	4.3	0.04
12H-CE01-T102-A	T102	12H-CE01	0.737	2.4	2.049	0.351	4.39	
12H-CE01-T102-B	T102	12H-CE01	0.031	2.5	2.093	0.407	4.31	0.03
12H-CE01-TTR1-A	TTR1	12H-CE01	0.171	1.7	1.317	0.383	4	0.22
12H-CE01-TTR1-B	TTR1	12H-CE01	0.065	2	1.554	0.446	4.1	0.07
12H-CE01-TTR2-A	TTR2	12H-CE01	0.032	1.8	1.319	0.481	4.4	0.03
12H-CE01-TTR2-B	TTR2	12H-CE01	0.018	1.7	1.403	0.297	4.1	0.02
12H-CE02-T000-B	T000	12H-CE02	0.114	1.8	1.661	0.139	3.2	0.14
12H-CE02-T014-B	T014	12H-CE02	0.169	5.5	5.304	0.196	4.1	0.68
12H-CE02-T102-A	T102	12H-CE02	0.073	3.7	3.294	0.406	4.21	0.09
12H-CE02-T102-B	T102	12H-CE02	0.212	3.8	3.282	0.518	4.36	0.53
12H-CE02-TTR1-A	TTR1	12H-CE02	0.577	2.95	2.5435	0.4065	3.95	
12H-CE02-TTR1-B	TTR1	12H-CE02	0.242	4.1	3.65	0.45	3.6	0.97
12H-CE02-TTR2-A	TTR2	12H-CE02	0.016	2	1.6485	0.3515	3.55	0.02
12H-CE02-TTR2-B	TTR2	12H-CE02	0.062	5	4.636	0.364	3.5	0.08
12H-CE03-T014-A	T014	12H-CE03	0.06	1.5	1.385	0.115	3.2	0.06
12H-CE03-T102-A	T102	12H-CE03	0.244	1.6	1.037	0.563	3.78	0.33
12H-CE03-T102-B	T102	12H-CE03	0.283	2.5	1.788	0.712	3.54	0.52
12H-CE03-TTR1-A	TTR1	12H-CE03	0.785	1.9	1.411	0.489	4.1	1.00
12H-CE03-TTR1-B	TTR1	12H-CE03	0.079	2.2	1.77	0.43	3.8	0.09
12H-CE03-TTR2-A	TTR2	12H-CE03	0.225	1.7	1.52	0.18	3.2	0.32
12H-CE03-TTR2-B	TTR2	12H-CE03	0.008	2.2	1.941	0.259	3.3	0.01
12H-CE04-T000-A	T000	12H-CE04	0.034	1.5	1.323	0.177	3.1	0.04
12H-CE04-T000-B	T000	12H-CE04	0.044	1.5	1.382	0.118	2.7	0.05
12H-CE04-T014-A	T014	12H-CE04	0.134	1.8	1.465	0.335	3.8	0.17
12H-CE04-T014-B	T014	12H-CE04	0.267	2.5	2.285	0.215	3.2	0.56
12H-CE04-T102-A	T102	12H-CE04	0.018	3.1	2.622	0.478	3.48	0.02
12H-CE04-T102-B	T102	12H-CE04	0.037	2.9	2.444	0.456	3.54	0.04
12H-CE04-TTR1-A	TTR1	12H-CE04	0.043	2	1.506	0.494	4.3	0.05
12H-CE04-TTR1-B	TTR1	12H-CE04	0.014	1.5	1.086	0.414	3.9	0.01
12H-CE04-TTR2-A	TTR2	12H-CE04	0.057	2.1	1.688	0.412	3.9	0.06

Table 4-9

Calculated Fraction Equilibrium (fE) Values for Mercury for Each sv-CWCM Station and Event

Sample ID	Station	Event	Fraction Dissolved (fD)	POC (mg/L)	Detrital POC (mg/L)	Algal POC (mg/L)	DOC (mg/L)	Adjusted fE
12H-CE04-TTR2-B	TTR2	12H-CE04	0.076	2.3	2.042	0.258	3.9	0.09
12H-CE05-T2R1-A	T2R1	12H-CE05	0.527	1.45	1.0315	0.4185	5.195	1.00
12H-CE05-T3R1-A	T3R1	12H-CE05	0.423	1.8	1.23	0.57	4.22	0.79
13A-CE11-T000-A	T000	13A-CE11		1.8	1.54	0.26	4	
13A-CE11-T000-B	T000	13A-CE11	0.032	0.9	0.766	0.134	5.1	0.03
13A-CE11-T014-A	T014	13A-CE11	0.282	2.7	2.43	0.27	4.4	0.67
13A-CE11-T014-B	T014	13A-CE11	0.033	0.8	0.626	0.174	2.9	0.03
13A-CE11-T042-A	T042	13A-CE11	0.108	2.2	1.873	0.327	4.4	0.13
13A-CE11-T042-B	T042	13A-CE11	0.024	3.3	3.014	0.286	4.5	0.03
13A-CE11-T067-A	T067	13A-CE11	0.017	4.4	4.057	0.343	4.19	0.02
13A-CE11-T067-B	T067	13A-CE11	0.043	7.8	7.19	0.61	4.6	0.06
13A-CE11-T102-A	T102	13A-CE11	0.034	3.6	3.157	0.443	4.08	0.04
13A-CE11-T102-B	T102	13A-CE11	0.073	5.4	4.939	0.461	4.07	0.11
13A-CE11-T175-A	T175	13A-CE11	0.297	2.1	1.985	0.115	4.8	0.59
13A-CE11-T2R1-A	T2R1	13A-CE11	0.351	7.5	6.81	0.69	2.29	
13A-CE11-T3R1-A	T3R1	13A-CE11	0.117	9.1	7.93	1.17	2.26	0.60
13A-CE11-TSR1-A	TSR1	13A-CE11	0.1	5	4.38	0.62	3.27	0.17
13A-CE12-T000-A	T000	13A-CE12	0.067	1.8	1.608	0.192	3.2	0.07
13A-CE12-T014-A	T014	13A-CE12	0.076	1.6	1.427	0.173	4.04	0.08
13A-CE12-T042-A	T042	13A-CE12	0.009	10.3	9.68	0.62	4.38	0.01
13A-CE12-T042-B	T042	13A-CE12	0.093	9.7	9.122	0.578	3.2	0.34
13A-CE12-T067-A	T067	13A-CE12	0.015	9.8	9.036	0.764	4.65	0.02
13A-CE12-T067-B	T067	13A-CE12	0.384	11.3	10.608	0.692	4.48	
13A-CE12-T102-A	T102	13A-CE12	0.098	6.1	5.46	0.64	5.26	0.19
13A-CE12-T102-B	T102	13A-CE12	0.368	6.6	5.91	0.69	5.19	
13A-CE12-T175-A	T175	13A-CE12	0.185	2.8	2.548	0.252	4.44	0.31
13A-CE12-T2R1-A	T2R1	13A-CE12	0.139	4.6	4.428	0.172	2.37	0.29
13A-CE12-T3R1-A	T3R1	13A-CE12	0.138	4.7	3.933	0.767	2.68	0.27
13A-CE12-TSR1-A	TSR1	13A-CE12	0.088	6.3	5.406	0.894	2.78	0.16
13A-CE13-T175-A	T175	13A-CE13	0.096	4.1	3.76	0.34	5.19	0.14
13A-CE20-T000-A	T000	13A-CE20	0.317	1.7	1.4	0.3	4.98	0.51
13A-CE20-T000-B	T000	13A-CE20	0.062	2.1	1.87	0.23	2.38	0.07
13A-CE20-T014-A	T014	13A-CE20	0.075	2.9	2.605	0.295	5.39	0.09
13A-CE20-T014-B	T014	13A-CE20	0.039	2.4	2.17	0.23	2.6	0.04
13A-CE20-T042-A	T042	13A-CE20	0.024	5.85	5.44	0.41	5.38	0.03
13A-CE20-T042-B	T042	13A-CE20	0.007	9.5	9.118	0.382	5.41	0.01
13A-CE20-T067-A	T067	13A-CE20	0.026	4.6	4.22	0.38	5.42	0.03
13A-CE20-T067-B	T067	13A-CE20	0.277	7.2	6.78	0.42	5.34	
13A-CE20-T102-A	T102	13A-CE20	0.183	4.2	3.874	0.326	5.35	0.46
13A-CE20-T102-B	T102	13A-CE20	0.055	4.3	3.99	0.31	5.34	0.07
13A-CE20-T175-A	T175	13A-CE20	0.21	3	2.77	0.23	5.45	0.41
13A-CE20-T2R1-A	T2R1	13A-CE20	0.073	9.2	8.89	0.31	4.98	0.16
13A-CE20-T3R1-A	T3R1	13A-CE20	0.097	11.6	10.38	1.22	4.69	0.66
13A-CE20-TSR1-A	TSR1	13A-CE20	0.159	7.2	6.393	0.807	6.15	1.00

Table 4-9

Calculated Fraction Equilibrium (fE) Values for Mercury for Each sv-CWCM Station and Event

Sample ID	Station	Event	Fraction Dissolved (fD)	POC (mg/L)	Detrital POC (mg/L)	Algal POC (mg/L)	DOC (mg/L)	Adjusted fE
13A-CE21-T000-A	T000	13A-CE21	0.099	0.8	0.64	0.16	3.6	0.11
13A-CE21-T000-B	T000	13A-CE21	0.351	0.9	0.801	0.099	2.8	0.46
13A-CE21-T014-A	T014	13A-CE21	0.208	3.3	3.03	0.27	6.75	0.44
13A-CE21-T014-B	T014	13A-CE21	0.122	5.7	5.44	0.26	6.7	0.27
13A-CE21-T042-B	T042	13A-CE21	0.062	2.5	2.299	0.201	6.8	0.07
13A-CE21-T067-B	T067	13A-CE21	0.07	1.6	1.444	0.156	7	0.08
13A-CE21-T102-A	T102	13A-CE21	0.083	2.4	2.186	0.214	7.09	0.10
13A-CE21-T102-B	T102	13A-CE21	0.061	2.5	2.263	0.237	7.05	0.07
13A-CE21-T2R1-A	T2R1	13A-CE21	0.348	0.9	0.82	0.08	5.17	0.46
13A-CE21-T3R1-A	T3R1	13A-CE21	0.284	1.1	0.832	0.268	5.25	0.36
13A-CE21-TSR1-A	TSR1	13A-CE21	0.27	2.5	1.844	0.656	6.98	0.48
N02-CE01-TARK-A	TARK	N02-CE01	0.069	0.4	0.2	0.2	2.74	0.07
N02-CE01-TARK-B	TARK	N02-CE01	0.26	0.4	0.24	0.16	2.2	0.28
N02-CE01-THKN-A	THKN	N02-CE01	0.036	0.7	0.2	0.5	5.28	0.04
N02-CE01-THKN-B	THKN	N02-CE01	0.022	1.3	0.79	0.51	5.07	0.02
N02-CE01-TKVK-A	TKVK	N02-CE01	0.05	0.5	0.37	0.13	2.81	0.05
N02-CE01-TKVK-B	TKVK	N02-CE01	0.046	0.5	0.4	0.1	2.32	0.05
N02-CE01-TNBE-A	TNBE	N02-CE01	0.066	0.8	0.63	0.17	3.03	0.07
N02-CE01-TNBN-A	TNBN	N02-CE01	0.35	0.6	0.41	0.19	3.49	0.41
N02-CE01-TNBN-B	TNBN	N02-CE01	0.02	0.8	0.7	0.1	2.49	0.02
N02-CE01-TNBS-A	TNBS	N02-CE01	0.06	0.5	0.4	0.1	3.12	0.06
N02-CE01-TNBS-B	TNBS	N02-CE01	0.061	0.4	0.3	0.1	2.51	0.06
N02-CE01-TNNE-A	TNNE	N02-CE01	0.104	0.4	0.15	0.25	4.23	0.11
N02-CE02-TARK-A	TARK	N02-CE02	0.158	0.5	0.37	0.13	2.53	0.17
N02-CE02-TARK-B	TARK	N02-CE02	0.057	0.4	0.3	0.1	2.4	0.06
N02-CE02-THKN-A	THKN	N02-CE02	0.035	0.7	0.36	0.34	3.81	0.04
N02-CE02-THKN-B	THKN	N02-CE02	0.011	1.3	1.03	0.27	3.66	0.01
N02-CE02-TKVK-A	TKVK	N02-CE02	0.062	0.5	0.34	0.16	2.13	0.06
N02-CE02-TKVK-B	TKVK	N02-CE02	0.016	0.8	0.64	0.16	2.01	0.02
N02-CE02-TNBE-A	TNBE	N02-CE02	0.092	0.4	0.2	0.2	3.17	0.10
N02-CE02-TNBE-B	TNBE	N02-CE02	0.083	0.65	0.465	0.185	2.965	0.09
N02-CE02-TNBN-A	TNBN	N02-CE02	0.064	0.5	0.27	0.23	3.1	0.07
N02-CE02-TNBN-B	TNBN	N02-CE02	0.07	0.3	0.2	0.1	2.41	0.07
N02-CE02-TNBS-A	TNBS	N02-CE02	0.121	0.5	0.33	0.17	2.94	0.13
N02-CE02-TNBS-B	TNBS	N02-CE02	0.09	1.2	1.07	0.13	2.45	0.10
N02-CE02-TNNE-A	TNNE	N02-CE02	0.043	0.75	0.49	0.26	3.525	0.04
N02-CE03-TARK-B	TARK	N02-CE03	0.154	0.5	0.4	0.1	2.27	0.16
N02-CE03-THKN-A	THKN	N02-CE03	0.047	0.6	0.2	0.4	3.05	0.05
N02-CE03-THKN-B	THKN	N02-CE03	0.01	1	0.9	0.1	2.53	0.01
N02-CE03-TKVK-A	TKVK	N02-CE03	0.081	0.5	0.28	0.22	2.23	0.08
N02-CE03-TKVK-B	TKVK	N02-CE03	0.028	0.4	0.27	0.13	1.95	0.03
N02-CE03-TNBE-A	TNBE	N02-CE03	0.07	0.2	0.04	0.16	3.17	0.07
N02-CE03-TNBE-B	TNBE	N02-CE03	0.208	0.1	0	0.1	2.91	0.21
N02-CE03-TNBN-A	TNBN	N02-CE03	0.083	0.1	0	0.1	3.08	0.08

Table 4-9

Calculated Fraction Equilibrium (fE) Values for Mercury for Each sv-CWCM Station and Event

Sample ID	Station	Event	Fraction Dissolved (fD)	POC (mg/L)	Detrital POC (mg/L)	Algal POC (mg/L)	DOC (mg/L)	Adjusted fE
N02-CE03-TNBN-B	TNBN	N02-CE03	0.312	0.5	0.44	0.06	2.58	0.35
N02-CE03-TNBS-A	TNBS	N02-CE03	0.55	0.5	0.24	0.26	2.99	0.63
N02-CE03-TNBS-B	TNBS	N02-CE03	0.018	0.8	0.67	0.13	2.18	0.02
N02-CE03-TNNE-A	TNNE	N02-CE03	0.038	0.7	0.31	0.39	3.23	0.04
N02-CE03-TNNE-B	TNNE	N02-CE03	0.099	0.3	0.08	0.22	3.27	0.10
N02-CE04-TARK-A	TARK	N02-CE04	0.065	0.3	0.01	0.29	2.64	0.07
N02-CE04-TARK-B	TARK	N02-CE04	0.033	0.4	0.3	0.1	2.11	0.03
N02-CE04-THKN-A	THKN	N02-CE04	0.022	1	0.47	0.53	3.64	0.02
N02-CE04-THKN-B	THKN	N02-CE04	0.023	0.8	0.58	0.22	3.29	0.02
N02-CE04-TKVK-A	TKVK	N02-CE04	0.15	0.3	0.14	0.16	2.43	0.16
N02-CE04-TKVK-B	TKVK	N02-CE04	0.022	0.7	0.63	0.07	2.23	0.02
N02-CE04-TNBE-A	TNBE	N02-CE04	0.055	0.2	0	0.2	3.18	0.06
N02-CE04-TNBE-B	TNBE	N02-CE04	0.09	0.3	0.13	0.17	2.99	0.09
N02-CE04-TNBN-A	TNBN	N02-CE04	0.044	0.2	0	0.2	3.56	0.04
N02-CE04-TNBN-B	TNBN	N02-CE04		0.6	0.5	0.1	2.68	
N02-CE04-TNBS-A	TNBS	N02-CE04	0.133	0.3	0.04	0.26	2.58	0.14
N02-CE04-TNBS-B	TNBS	N02-CE04		0.2	0.1	0.1	2.69	1.00
N02-CE04-TNNE-A	TNNE	N02-CE04	0.05	0.4	0.24	0.16	3.04	0.05
N03-CE01-TARK-A	TARK	N03-CE01	0.106	1.1	0.722	0.378	1.8	0.12
N03-CE01-TARK-B	TARK	N03-CE01	0.266	0.5	0.083	0.417	1.6	0.28
N03-CE01-THKN-A	THKN	N03-CE01	0.012	0.95	0.75	0.2	3.1	0.01
N03-CE01-THKN-B	THKN	N03-CE01	0.169	1.5	1.277	0.223	3	0.21
N03-CE01-TKVK-A	TKVK	N03-CE01	0.201	0.6	0.312	0.288	1.4	0.22
N03-CE01-TKVK-B	TKVK	N03-CE01	0.439	0.5	0.122	0.378	1.2	0.48
N03-CE01-TNBE-A	TNBE	N03-CE01	0.033	0.5	0.232	0.268	1.9	0.03
N03-CE01-TNBN-A	TNBN	N03-CE01	0.013	1	0.75	0.25	1.9	0.01
N03-CE01-TNBN-B	TNBN	N03-CE01	0.016	1.4	1.136	0.264	1.5	0.02
N03-CE01-TNBS-A	TNBS	N03-CE01	0.117	0.8	0.548	0.252	1.7	0.13
N03-CE01-TNBS-B	TNBS	N03-CE01	0.054	1	0.65	0.35	1.5	0.06
N03-CE01-TNNE-A	TNNE	N03-CE01	0.022	0.9	0.64	0.26	1.8	0.02
N03-CE01-TNNW-A	TNNW	N03-CE01	0.021	1	0.768	0.232	1.9	0.02
N03-CE02-TARK-B	TARK	N03-CE02	0.18	0.55	0.1695	0.3805	1.65	0.19
N03-CE02-THKN-A	THKN	N03-CE02	0.1	1	0.703	0.297	2.3	0.11
N03-CE02-THKN-B	THKN	N03-CE02	0.013	1.1	0.87	0.23	2.1	0.01
N03-CE02-TKVK-B	TKVK	N03-CE02	0.123	1.2	0.813	0.387	1.4	0.14
N03-CE02-TNBN-A	TNBN	N03-CE02	0.034	0.7	0.47	0.23	1.5	0.04
N03-CE02-TNBN-B	TNBN	N03-CE02	0.198	0.9	0.525	0.375	1.3	0.23
N03-CE02-TNBS-B	TNBS	N03-CE02	0.069	2.1	1.647	0.453	1.7	0.08
N03-CE02-TNNE-A	TNNE	N03-CE02	0.048	1.15	0.924	0.226	1.6	0.05
N03-CE02-TNNW-A	TNNW	N03-CE02	0.045	0.9	0.61	0.29	1.4	0.05
N03-CE03-TARK-A	TARK	N03-CE03	0.153	0.5	0.011	0.489	1.4	0.16
N03-CE03-TARK-B	TARK	N03-CE03	0.18	0.6	0.245	0.355	0.77	0.19
N03-CE03-THKN-A	THKN	N03-CE03	0.069	0.7	0.402	0.298	1.7	0.07
N03-CE03-THKN-B	THKN	N03-CE03	0.005	1.3	1.033	0.267	1.5	0.01

Table 4-9

Calculated Fraction Equilibrium (fE) Values for Mercury for Each sv-CWCM Station and Event

Sample ID	Station	Event	Fraction Dissolved (fD)	POC (mg/L)	Detrital POC (mg/L)	Algal POC (mg/L)	DOC (mg/L)	Adjusted fE
N03-CE03-TNBE-B	TNBE	N03-CE03	0.27	0.6	0.308	0.292	1.5	0.30
N03-CE03-TNBN-A	TNBN	N03-CE03	0.052	0.7	0.428	0.272	1.4	0.05
N03-CE03-TNBN-B	TNBN	N03-CE03	0.491	0.9	0.564	0.336	1.7	0.66
N03-CE03-TNBS-B	TNBS	N03-CE03	0.152	0.7	0.293	0.407	1.4	0.16
N03-CE03-TNNE-A	TNNE	N03-CE03	0.095	0.8	0.585	0.215	1.7	0.10
N03-CE03-TNNE-B	TNNE	N03-CE03	0.632	0.5	0.172	0.328	1.2	0.72
N03-CE03-TNNW-A	TNNW	N03-CE03	0.069	0.4	0.07	0.33	1.9	0.07
N03-CE03-TNNW-B	TNNW	N03-CE03	0.041	0.6	0.261	0.339	1.6	0.04
N03-CE04-TARK-A	TARK	N03-CE04	0.054	0.6	0.105	0.495	1.1	0.06
N03-CE04-THKN-A	THKN	N03-CE04	0.011	1.5	1.238	0.262	1.8	0.01
N03-CE04-THKN-B	THKN	N03-CE04	0.021	1.4	1.209	0.191	1.8	0.02
N03-CE04-TKVK-B	TKVK	N03-CE04	0.097	0.6	0.213	0.387	1.4	0.10
N03-CE04-TNBN-A	TNBN	N03-CE04	0.033	1.1	0.795	0.305	1.7	0.03
N03-CE04-TNBN-B	TNBN	N03-CE04	0.144	2.1	1.79	0.31	1.5	0.19
N03-CE04-TNNE-A	TNNE	N03-CE04	0.52	0.8	0.51	0.29	1.4	0.69
N03-CE04-TNNW-A	TNNW	N03-CE04	0.033	1.2	0.83	0.37	1.6	0.03
N03-CE04-TNNW-B	TNNW	N03-CE04	0.006	1.8	1.425	0.375	1.7	0.01
N04-CE01-TARK-A	TARK	N04-CE01	0.172	0.5	0.129	0.371	2	0.18
N04-CE01-TARK-B	TARK	N04-CE01	0.237	0.9	0.47	0.43	2	0.27
N04-CE01-TKVK-A	TKVK	N04-CE01	0.086	0.7	0.238	0.462	2.1	0.09
N04-CE01-TKVK-B	TKVK	N04-CE01	0.076	0.9	0.371	0.529	1.8	0.08
N04-CE03-TARK-A	TARK	N04-CE03	0.037	0.7	0.153	0.547	2	0.04
N04-CE03-TKVK-A	TKVK	N04-CE03	0.095	0.8	0.236	0.564	2.2	0.10
N04-CE03-TKVK-B	TKVK	N04-CE03	0.08	0.9	0.273	0.627	1.6	0.09
N04-CE11-THKN-A	THKN	N04-CE11	0.051	1	0.666	0.334	2.5	0.05
N04-CE11-THKN-B	THKN	N04-CE11	0.022	1.2	0.82	0.38	2.4	0.02
N04-CE11-TNBE-A	TNBE	N04-CE11	0.14	0.6	0.228	0.372	2.4	0.15
N04-CE11-TNBE-B	TNBE	N04-CE11	0.111	0.8	0.427	0.373	2.5	0.12
N04-CE11-TNBN-A	TNBN	N04-CE11	0.084	1.4	1.032	0.368	3.1	0.09
N04-CE11-TNBS-A	TNBS	N04-CE11	0.258	0.9	0.534	0.366	2.4	0.30
N04-CE11-TNBS-B	TNBS	N04-CE11	0.222	0.9	0.557	0.343	2.4	0.26
N04-CE11-TNNE-B	TNNE	N04-CE11	0.009	1.3	0.951	0.349	2.4	0.01
N04-CE11-TNNW-A	TNNW	N04-CE11	0.709	0.8	0.45	0.35	2.4	1.00
N04-CE11-TNNW-B	TNNW	N04-CE11	0.064	0.7	0.35	0.35	2.3	0.07
N04-CE12-THKN-A	THKN	N04-CE12	0.171	0.9	0.659	0.241	2	0.19
N04-CE12-THKN-B	THKN	N04-CE12	0.703	1.6	1.281	0.319	2.1	1.00
N04-CE12-TNBE-A	TNBE	N04-CE12	0.124	1	0.768	0.232	1.8	0.14
N04-CE12-TNBE-B	TNBE	N04-CE12	0.675	0.7	0.375	0.325	1.8	0.89
N04-CE12-TNBN-A	TNBN	N04-CE12	0.087	0.8	0.46	0.34	1.8	0.09
N04-CE12-TNBN-B	TNBN	N04-CE12	0.466	0.7	0.281	0.419	1.8	0.55
N04-CE12-TNBS-A	TNBS	N04-CE12	0.125	0.6	0.309	0.291	3	0.13
N04-CE12-TNBS-B	TNBS	N04-CE12	0.115	1.3	0.73	0.57	2.4	0.13
N04-CE12-TNNE-A	TNNE	N04-CE12	0.729	0.9	0.592	0.308	1.95	1.00
N04-CE12-TNNE-B	TNNE	N04-CE12	0.048	0.9	0.56	0.34	1.9	0.05

Table 4-9

Calculated Fraction Equilibrium (fE) Values for Mercury for Each sv-CWCM Station and Event

Sample ID	Station	Event	Fraction Dissolved (fD)	POC (mg/L)	Detrital POC (mg/L)	Algal POC (mg/L)	DOC (mg/L)	Adjusted fE
N04-CE12-TNNW-A	TNNW	N04-CE12	0.062	0.9	0.55	0.35	1.9	0.07
N04-CE12-TNNW-B	TNNW	N04-CE12	0.059	0.9	0.591	0.309	1.9	0.06
N04-CE20-THKN-A	THKN	N04-CE20	0.021	1.5	1.262	0.238	3.3	0.02
N04-CE20-THKN-B	THKN	N04-CE20	0.082	1.6	1.341	0.259	2.8	0.09
N04-CE20-TNBE-A	TNBE	N04-CE20	0.065	0.9	0.551	0.349	2.5	0.07
N04-CE20-TNBN-A	TNBN	N04-CE20	0.007	1.1	0.801	0.299	2.4	0.01
N04-CE20-TNBN-B	TNBN	N04-CE20	0.024	1.5	1.168	0.332	2.4	0.03
N04-CE20-TNBS-A	TNBS	N04-CE20	0.052	0.9	0.53	0.37	2.6	0.06
N04-CE20-TNBS-B	TNBS	N04-CE20	0.135	0.7	0.139	0.561	2.2	0.14
N04-CE20-TNNE-B	TNNE	N04-CE20	0.028	1.3	1.015	0.285	2.5	0.03
N04-CE20-TNNW-A	TNNW	N04-CE20	0.082	1.9	1.588	0.312	2.4	0.10
N04-CE20-TNNW-B	TNNW	N04-CE20	0.293	1.2	0.828	0.372	2.2	0.38
N04-CE21-THKN-A	THKN	N04-CE21	0.054	1.1	0.76	0.34	3.2	0.06
N04-CE21-THKN-B	THKN	N04-CE21	0.186	1.5	1.221	0.279	3.4	0.24
N04-CE21-TNBE-A	TNBE	N04-CE21	0.23	0.8	0.448	0.352	2.7	0.26
N04-CE21-TNBN-A	TNBN	N04-CE21	0.296	0.6	0.23	0.37	2.4	0.33
N04-CE21-TNBN-B	TNBN	N04-CE21	0.087	1.2	0.557	0.643	2.1	0.10
N04-CE21-TNBS-A	TNBS	N04-CE21	0.222	0.8	0.37	0.43	2.7	0.25
N04-CE21-TNBS-B	TNBS	N04-CE21	0.011	1.7	0.932	0.768	2	0.01
N04-CE21-TNNE-B	TNNE	N04-CE21	0.233	0.5	0.2	0.3	2.7	0.25
N04-CE21-TNNW-A	TNNW	N04-CE21	0.245	0.65	0.2855	0.3645	2.75	0.27
N05-CE01-TKVK-B	TKVK	N05-CE01	0.046	0.7	0.49	0.21	1.4	0.05
N05-CE01-TNBN-A	TNBN	N05-CE01	0.114	1.2	0.86	0.34	2.4	0.13
N05-CE01-TNBN-B	TNBN	N05-CE01	0.418	0.6	0.3	0.3	2.1	0.48
N05-CE01-TNBS-A	TNBS	N05-CE01	0.119	1.1	0.81	0.29	2	0.13
N05-CE02-THKN-B	THKN	N05-CE02	0.137	1.5	1.08	0.42	2.3	0.16
N05-CE02-TNBN-A	TNBN	N05-CE02	0.473	0.5	0.27	0.23	1.8	0.54
N05-CE02-TNBN-B	TNBN	N05-CE02	0.017	0.8	0.57	0.23	1.9	0.02
N05-CE02-TNBS-A	TNBS	N05-CE02	0.114	0.5	0.15	0.35	1.7	0.12
N05-CE02-TNBS-B	TNBS	N05-CE02	0.083	1.2	0.99	0.21	1.4	0.09
N05-CE03-TNBN-A	TNBN	N05-CE03	0.063	1.1	0.84	0.26	1.9	0.07
N05-CE03-TNBN-B	TNBN	N05-CE03	0.044	0.6	0.44	0.16	1.8	0.05
N05-CE03-TNBS-A	TNBS	N05-CE03	0.393	0.6	0.12	0.48	2.3	0.43
N05-CE03-TNBS-B	TNBS	N05-CE03	0.6	0.6	0.42	0.18	1.4	0.78
N05-CE04-THKN-A	THKN	N05-CE04	0.046	1.9	1.58	0.32	2.4	0.05
N05-CE04-TNBS-A	TNBS	N05-CE04	0.209	1	0.84	0.16	1.8	0.25
N05-CE04-TNBS-B	TNBS	N05-CE04	0.042	0.5	0.34	0.16	1.5	0.04
N06-CE01-THKN-A	THKN	N06-CE01	0.024	2.1	1.775	0.325	4	0.03
N06-CE01-THKN-B	THKN	N06-CE01	0.066	2.6	2.24	0.36	3.7	0.08
N06-CE01-TNBN-A	TNBN	N06-CE01	0.093	0.7	0.54	0.16	2.7	0.10
N06-CE01-TNBN-B	TNBN	N06-CE01	0.05	3.7	3.62	0.08	2.8	0.06
N06-CE01-TNNE-A	TNNE	N06-CE01	0.113	1	0.88	0.12	3	0.12
N06-CE01-TNNW-A	TNNW	N06-CE01	0.171	1.6	1.422	0.178	3.3	0.22
N06-CE02-THKN-A	THKN	N06-CE02	0.035	1.4	1.183	0.217	4.2	0.04

Table 4-9

Calculated Fraction Equilibrium (fE) Values for Mercury for Each sv-CWCM Station and Event

Sample ID	Station	Event	Fraction Dissolved (fD)	POC (mg/L)	Detrital POC (mg/L)	Algal POC (mg/L)	DOC (mg/L)	Adjusted fE
N06-CE02-THKN-B	THKN	N06-CE02	0.013	1.8	1.622	0.178	3.5	0.01
N06-CE02-TKVK-B	TKVK	N06-CE02	0.563	2.8	2.69	0.11	2.2	
N06-CE02-TNBN-A	TNBN	N06-CE02	0.185	0.95	0.8265	0.1235	2.6	0.21
N06-CE02-TNBN-B	TNBN	N06-CE02	0.07	3.3	3.169	0.131	3.8	0.09
N06-CE02-TNNE-A	TNNE	N06-CE02	0.024	1	0.922	0.078	2.6	0.02
N06-CE02-TNNW-B	TNNW	N06-CE02	0.466	0.6	0.458	0.142	2.3	0.58
N06-CE03-THKN-A	THKN	N06-CE03	0.036	0.9	0.66	0.24	2.5	0.04
N06-CE03-THKN-B	THKN	N06-CE03	0.027	1.6	1.44	0.16	2.7	0.03
N06-CE03-TNBN-B	TNBN	N06-CE03	0.3	0.7	0.6	0.1	2.2	0.36
N06-CE03-TNNE-A	TNNE	N06-CE03	0.308	1.1	0.882	0.218	2.8	0.41
N06-CE03-TNNW-B	TNNW	N06-CE03		0.7	0.59	0.11	2.3	
N06-CE04-THKN-A	THKN	N06-CE04	0.045	1.5	1.315	0.185	3.05	0.05
N06-CE04-THKN-B	THKN	N06-CE04	0.076	1.1	0.89	0.21	2.5	0.08
N06-CE04-TKVK-B	TKVK	N06-CE04	0.051	1.1	0.97	0.13	2.3	0.05
N06-CE04-TNBN-A	TNBN	N06-CE04	0.263	1	0.8	0.2	2.6	0.33
N06-CE04-TNNW-A	TNNW	N06-CE04		1.2	0.96	0.24	2.1	
N07-CE01-TARK-A	TARK	N07-CE01	0.035	0.9	0.766	0.134	2.1	0.04
N07-CE01-TARK-B	TARK	N07-CE01	0.046	0.9	0.771	0.129	2.1	0.05
N07-CE01-THKN-A	THKN	N07-CE01	0.063	1.3	0.981	0.319	4.4	0.07
N07-CE01-THKN-B	THKN	N07-CE01	0.097	1.7	1.415	0.285	4.4	0.11
N07-CE01-TKVK-B	TKVK	N07-CE01	0.09	0.9	0.761	0.139	2.2	0.10
N07-CE01-TNBE-A	TNBE	N07-CE01	0.581	0.6	0.481	0.119	2.8	0.77
N07-CE01-TNBN-B	TNBN	N07-CE01	0.289	1.6	1.383	0.217	2.9	0.44
N07-CE01-TNBS-A	TNBS	N07-CE01	0.039	0.7	0.54	0.16	2.5	0.04
N07-CE01-TNBS-B	TNBS	N07-CE01	0.117	0.8	0.699	0.101	2.8	0.13
N07-CE01-TNNE-A	TNNE	N07-CE01	0.282	1.5	1.261	0.239	2.9	0.41
N07-CE02-TARK-A	TARK	N07-CE02	0.093	1	0.863	0.137	2.4	0.10
N07-CE02-TARK-B	TARK	N07-CE02	0.099	1	0.886	0.114	2.5	0.11
N07-CE02-THKN-B	THKN	N07-CE02	0.139	1.5	1.377	0.123	3.4	0.17
N07-CE02-TKVK-A	TKVK	N07-CE02	0.03	2.5	2.402	0.098	2.4	0.03
N07-CE02-TKVK-B	TKVK	N07-CE02	0.019	3.9	1.71	2.19	2.2	0.02
N07-CE02-TNBE-A	TNBE	N07-CE02	0.173	0.7	0.581	0.119	2	0.19
N07-CE02-TNBE-B	TNBE	N07-CE02	0.024	1	0.839	0.161	2.4	0.02
N07-CE02-TNBN-B	TNBN	N07-CE02	0.644	2.9	2.766	0.134	2.4	
N07-CE02-TNBS-A	TNBS	N07-CE02	0.042	1.2	1.042	0.158	2.3	0.04
N07-CE02-TNBS-B	TNBS	N07-CE02	0.037	1.7	1.561	0.139	2.4	0.04
N07-CE02-TNNE-A	TNNE	N07-CE02	0.597	1	0.844	0.156	2.9	1.00
N07-CE02-TNNW-A	TNNW	N07-CE02	0.046	0.85	0.686	0.164	2.4	0.05
N07-CE02-TNNW-B	TNNW	N07-CE02	0.007	1.9	1.752	0.148	2.1	0.01
N07-CE03-TARK-A	TARK	N07-CE03	0.114	0.7	0.56	0.14	2.1	0.12
N07-CE03-TARK-B	TARK	N07-CE03	0.094	1.9	1.804	0.096	2	0.11
N07-CE03-THKN-A	THKN	N07-CE03	0.246	0.6	0.481	0.119	2.5	0.28
N07-CE03-THKN-B	THKN	N07-CE03	0.11	1.3	1.176	0.124	2.4	0.12
N07-CE03-TKVK-A	TKVK	N07-CE03	0.703	0.8	0.683	0.117	2	1.00

Table 4-9

Calculated Fraction Equilibrium (fE) Values for Mercury for Each sv-CWCM Station and Event

Sample ID	Station	Event	Fraction Dissolved (fD)	POC (mg/L)	Detrital POC (mg/L)	Algal POC (mg/L)	DOC (mg/L)	Adjusted fE
N07-CE03-TKVK-B	TKVK	N07-CE03	0.113	1.2	1.083	0.117	2.1	0.13
N07-CE03-TNBE-A	TNBE	N07-CE03	0.057	0.7	0.6	0.1	2.6	0.06
N07-CE03-TNBE-B	TNBE	N07-CE03	0.278	0.7	0.602	0.098	2.6	0.33
N07-CE03-TNBN-A	TNBN	N07-CE03	0.229	0.7	0.563	0.137	2.7	0.26
N07-CE03-TNBN-B	TNBN	N07-CE03	0.04	1.6	1.462	0.138	2.3	0.04
N07-CE03-TNBS-A	TNBS	N07-CE03	0.031	0.9	0.801	0.099	2.7	0.03
N07-CE03-TNBS-B	TNBS	N07-CE03	0.215	1.6	1.461	0.139	2.4	0.30
N07-CE04-TARK-A	TARK	N07-CE04	0.136	0.8	0.684	0.116	2.5	0.15
N07-CE04-TARK-B	TARK	N07-CE04	0.118	0.8	0.701	0.099	2.4	0.13
N07-CE04-THKN-A	THKN	N07-CE04	0.072	1.5	1.341	0.159	3	0.08
N07-CE04-THKN-B	THKN	N07-CE04	0.17	1.9	1.74	0.16	2.8	0.23
N07-CE04-TKVK-A	TKVK	N07-CE04	0.026	1.6	1.466	0.134	2.4	0.03
N07-CE04-TKVK-B	TKVK	N07-CE04	0.276	2.2	2.067	0.133	2.6	0.54
N07-CE04-TNBE-A	TNBE	N07-CE04	0.831	1.3	1.08	0.22	2.7	1.00
N07-CE04-TNBE-B	TNBE	N07-CE04	0.482	0.6	0.397	0.203	2.6	0.59
N07-CE04-TNBN-A	TNBN	N07-CE04	0.288	1.3	1.176	0.124	2.5	0.41
N07-CE04-TNBN-B	TNBN	N07-CE04	0.019	1.4	1.263	0.137	2.6	0.02
N07-CE04-TNBS-B	TNBS	N07-CE04	0.156	1	0.899	0.101	2.2	0.18
N07-CE04-TNNE-A	TNNE	N07-CE04	0.46	1.4	1.258	0.142	2.5	0.91
N07-CE04-TNNW-A	TNNW	N07-CE04	0.108	3.1	2.918	0.182	2.9	0.15
N07-CE04-TNNW-B	TNNW	N07-CE04	0.12	2.6	2.391	0.209	2.8	0.16
N09-CE03-TARK-A	TARK	N09-CE03	0.307	1.4	1.148	0.252	2	0.45
N09-CE03-TARK-B	TARK	N09-CE03	0.067	2.1	2.023	0.077	1.3	0.08
N09-CE11-THKN-A	THKN	N09-CE11	0.176	1.3	0.798	0.502	3.4	0.21
N09-CE11-TNBE-A	TNBE	N09-CE11	0.045	1.8	1.57	0.23	2.8	0.05
N09-CE11-TNBN-A	TNBN	N09-CE11	0.09	1.9	1.689	0.211	2.6	0.11
N09-CE11-TNBN-B	TNBN	N09-CE11	0.04	1.3	1.225	0.075	1.7	0.04
N09-CE11-TNNE-A	TNNE	N09-CE11	0.065	1.8	1.628	0.172	2.5	0.07
N09-CE11-TNNW-A	TNNW	N09-CE11	0.029	1.6	1.444	0.156	2.5	0.03
N09-CE12-THKN-A	THKN	N09-CE12	0.022	2.1	1.547	0.553	3.5	0.02
N09-CE12-THKN-B	THKN	N09-CE12	0.186	2.2	1.799	0.401	2.9	0.27
N09-CE12-TNBS-A	TNBS	N09-CE12	0.172	1.3	1.009	0.291	2.1	0.21
N09-CE12-TNBS-B	TNBS	N09-CE12	0.102	1.6	1.542	0.058	1.2	0.12
N09-CE12-TNNE-A	TNNE	N09-CE12	0.062	1.5	1.3125	0.1875	2.85	0.07
N09-CE12-TNNW-B	TNNW	N09-CE12	0.176	1.4	1.283	0.117	2	0.22
N09-CE20-THKN-A	THKN	N09-CE20	0.028	2.3	1.18	1.12	4	0.03
N09-CE20-THKN-B	THKN	N09-CE20	0.03	2.8	1.897	0.903	3.8	0.03
N09-CE20-TNBN-A	TNBN	N09-CE20	0.146	2.3	1.974	0.326	2.6	0.20
N09-CE20-TNBN-B	TNBN	N09-CE20	0.176	2	1.923	0.077	1.5	0.25
N09-CE20-TNNE-A	TNNE	N09-CE20	0.076	1.8	1.502	0.298	2.4	0.09
N09-CE20-TNNW-A	TNNW	N09-CE20	0.141	1.8	1.461	0.339	2.8	0.18
N09-CE21-THKN-A	THKN	N09-CE21	0.154	1.1	0.71	0.39	4.2	0.18
N09-CE21-THKN-B	THKN	N09-CE21	0.053	1.4	1.06	0.34	3.9	0.06
N09-CE21-TNBE-A	TNBE	N09-CE21	0.065	1.4	1.27	0.13	2.8	0.07

Table 4-9**Calculated Fraction Equilibrium (fE) Values for Mercury for Each sv-CWCM Station and Event**

Sample ID	Station	Event	Fraction Dissolved (fD)	POC (mg/L)	Detrital POC (mg/L)	Algal POC (mg/L)	DOC (mg/L)	Adjusted fE
N09-CE21-TNBN-A	TNBN	N09-CE21	0.072	0.9	0.741	0.159	3	0.08
N09-CE21-TNBN-B	TNBN	N09-CE21	0.139	2	1.881	0.119	2.1	0.18
N09-CE21-TNBS-A	TNBS	N09-CE21	0.073	1	0.883	0.117	2.7	0.08
N09-CE21-TNBS-B	TNBS	N09-CE21	0.115	0.8	0.666	0.134	1.4	0.12
N09-CE21-TNNE-A	TNNE	N09-CE21	0.129	1.6	1.464	0.136	2.9	0.16
N09-CE21-TNNW-A	TNNW	N09-CE21	0.074	1.15	0.982	0.168	3.25	0.08
N09-CE21-TNNW-B	TNNW	N09-CE21	0.153	1.4	1.266	0.134	3.1	0.19

Notes:

Calculations made for samples with detected POC, DOC, THg, and dissolved Hg.

Algal carbon (mg/L) calculated as measured Chla (mg/m³) / 1,000 * 100. If calculated Algal carbon > measured POC, Algal carbon is set to POC.

Samples with fraction dissolved Hg > 1 have been excluded.

Adjusted f_E: values excluded if less than 0 or greater than 1

DOC: dissolved organic carbon

mg/L: milligram per liter

mg/m³: milligram per cubic meter

POC: particulate organic carbon

sv-CWCM: small-volume chemical water column monitoring

List of Stations:

T000: Lower Passaic River RM 0

T014: Lower Passaic River RM 1.4

T042: Lower Passaic River RM 4.2

T067: Lower Passaic River RM 6.7

T102: Lower Passaic River RM 10.2

T175: Above Dundee Dam

T2R1: Second River

T3R1: Third River

TARK: Arthur Kill

THKN: Hackensack River

TKVK: Kill van Kull

TNBE: Newark Bay East

TNBS: Newark Bay South

TNBN: Newark Bay North

TNNE: Newark Bay Northeast

TNNW: Newark Bay Northwest

TSR1: Saddle River

TTR1: Lower Passaic River tidal 1 (approximately 1 mile downstream of the toe of the salt wedge)

TTR2: Lower Passaic River tidal 2 (halfway between the toe of the salt wedge and RM 1.4 up to RM 4.2)