From: John Ferguson [mailto:jjfergus@gw.dec.state.ny.us]
Sent: Wednesday, July 17, 2013 10:57 AM
To: Ken Avery
Cc: Kristine (DOT) Edwards
Subject: Water Quality Monitoring Results

The Department has reviewed the water quality monitoring data submitted with your July 10 and 11 emails. The data are from the first water quality sampling undertaken, during fender removal on the Rockland side, in shallow water, and occurred on June 25 and 26, and subsequent collection on July 1. Results for samples collected June 25 and 26 suggest that work on those days may have caused levels for metals (mercury and copper) to rise above the standards set in the Departments permit for the bridge. However, in the Department's opinion it is more likely these results are attributable to the challenges associated with starting up a new monitoring program in shallow water.

Subsequent monitoring results for July 1 show water quality meeting the permit's water quality standards for metals. The July 1 results also suggest that work on that date caused total suspended solids (TSS) to rise above the permit's TSS limit. But based on direct field observation of the pile removal operations it is the Department's opinion that the reported TSS concentration was more likely caused by the sampling apparatus hitting the bottom prior to or during the collection of the bottom sample.

In response to these water quality results the Permittee has taken steps to require a change to the configuration of the silt curtain arrangement around the fender removal operations. Full-scale water quality monitoring will continue until permit conditions are met for two consecutive weeks (eight consecutive construction days). It is the Department's position that all permit requirements associated with Water Quality Monitoring have been met to date.

Recommendations
1.Consistent with its typical requirements for similar water quality monitoring, and confirmed during observations of the fender removal operation and concurrent monitoring on July 2, it is the Department's opinion that collecting samples at three-depth intervals in shallower water (as required in condition 60) is technically difficult to implement and can cause questionable results.

It is the Department's opinion that if this requirement remains unchanged, similarly misleading results will likely continue for the project's duration. Therefore it is recommended that the TA, after discussion with its consultant as to the most effective and technically informative water quality monitoring methodology, request a modification of the relevant requirements in permit condition 60 to address these concerns. The Department will of course be available to collaborate on development of a revised plan.

2.The water quality standard for copper in permit condition 61 is incorrect; the value should be 5.6 ug/l, not 3.4 ug/l. Per 6 NYCRR §703.5, Table 1, the standard for copper in these waters is 3.4 ug/l - except in New York/New Jersey Harbor where it is 5.6 ug/l.
New York/New Jersey Harbor is defined in §700.1(a)(36) as "salt water classified segments identified in... Part 864..." Section 864.6 Table 1, Item 2, identifies the Hudson River from the New York-Bronx County line to the Bear Mountain Bridge as being saline (Class SB) waters. The project area is within the regulatory definition of New York/New Jersey Harbor, and thus the 5.6 ug/l standard applies. The Department will prepare a modification of the permit making this change.

If you have any questions please feel free to contact me.

Thank you for your cooperation.

J Ferguson

Created by: J. Van den Sype
Checked by: V. Whalon

Date	6/25/13		
Survey Type	V - Vessel Based		
Construction Activity	DEM - Demolition	Comments	Fender Removal
Tide	Ebb		
Source Location	Pier 4		

Sample Location		Upcurrent (Ambient)												Downcurrent											
Distance to Source		Approx. 500 - 1000 ft[1]												Outside Silt Curtain[2]											
Sample ID		062513-DEM-E-U												062513-DEM-E-D											
Parameter		Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene
Unit		(ppm)	(ppb)											(ppm)	(ppb)										
Detection Limit[3]		Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1	Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1
Water Quality Standard[3]		*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006	*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006
Analytical Result[4]	S	74.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	62.0	0.1097	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	M	58.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	78.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	B	54.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	112	0.1296	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

[1] Samples collected at a location up current of the source where the water quality effects of the project are no longer discernible

[2] Samples were collected as close as safely possible to the silt curtain

[3] Based on New York State Department of Environmental Conservation Permit Facility ID 3-9903-00043/00012-14

-- No detection limit or water quality standard

* None from sewage, industrial waste or other wastes that will cause deposition or impair the waters for their best usages

ND Not Detected

[4] S = Near Surface, M = Mid-Depth, B = Near Bottom

Created by: J. Van den Sype
Checked by: V. Whalon

Date		6/25/13																							
Survey Type		V - Vessel Based																							
Construction Activity		DEM - Demolition					**Comments**					Fender Removal													
Tide		Flood																							
Source Location		Pier 5																							
Sample Location		**Upcurrent (Ambient)**											**Downcurrent**												
Distance to Source		Approx. 500 - 1000 ft[1]											Outside Silt Curtain[2]												
Sample ID		062513-DEM-F-U											062513-DEM-F-D												
Parameter		**Total Suspended Solids**	**Mercury**	**Nickel**	**Copper**	**Lead**	**Zinc**	**PCB**				**Naphthalene**	**Benzo(a)pyrene**	**Total Suspended Solids**	**Mercury**	**Nickel**	**Copper**	**Lead**	**Zinc**	**PCB**				**Naphthalene**	**Benzo(a)pyrene**
								Aroclor 1242	**Aroclor 1248**	**Aroclor 1254**	**Aroclor 1260**									**Aroclor 1242**	**Aroclor 1248**	**Aroclor 1254**	**Aroclor 1260**		
Unit		(ppm)	(ppb)											(ppm)	(ppb)										
Detection Limit[3]		Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1	Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1
Water Quality Standard[3]		*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006	*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006
Analytical Result[4]	**S**	53.0	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	68.0	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*
	M	62.0	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	106	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*
	B	78.0	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	112	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*

Notes:

[1] Samples collected at a location up current of the source where the water quality effects of the project are no longer discernible

[2] Samples were collected as close as safely possible to the silt curtain

[3] Based on New York State Department of Environmental Conservation Permit Facility ID 3-9903-00043/00012-14

-- No detection limit or water quality standard

* None from sewage, industrial waste or other wastes that will cause deposition or impair the waters for their best usages

ND Not Detected

[4] S = Near Surface, M = Mid-Depth, B = Near Bottom

Created by: J. Van den Sype
Checked by: V. Whalon

Date	6/26/13		
Survey Type	V - Vessel Based		
Construction Activity	DEM - Demolition	Comments	Fender Removal
Tide	Flood		
Source Location	Pier 6		

Sample Location		Upcurrent (Ambient)											Downcurrent										
Distance to Source		Approx. 500 - 1000 ft[1]											Outside Silt Curtain[2]										
Sample ID		062613-DEM-F-U											062613-DEM-F-D										
Parameter		Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene
Unit		(ppm)	(ppb)											(ppm)	(ppb)										
Detection Limit[3]		Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1	Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1
Water Quality Standard[3]		*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006	*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006
Analytical Result[4]	S	77.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	59.0	ND	ND	5.8	ND	ND	ND	ND	ND	ND	ND	ND
	M	90.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	70.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	B	112	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	74.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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Created by: J. Van den Sype
Checked by: V. Whalon

Date	6/27/13		
Survey Type	V - Vessel Based		
Construction Activity	DEM - Demolition	Comments	Fender Removal
Tide	Ebb		
Source Location	Pier 8		

Sample Location		Upcurrent (Ambient)											Downcurrent										
Distance to Source		Approx. 500 - 1000 ft[1]											Outside Silt Curtain[2]										
Sample ID		062713-DEM-E-U											062713-DEM-E-D										
Parameter		Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene
Unit		(ppm)	(ppb)											(ppm)	(ppb)										
Detection Limit[3]		Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1	Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1
Water Quality Standard[3]		*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006	*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006
Analytical Result[4]	S	35.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	40.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	M	46.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	59.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	B	46.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	40.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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Created by: J. Van den Sype
Checked by: V. Whalon

Date	6/27/13		
Survey Type	V - Vessel Based		
Construction Activity	DEM - Demolition	Comments	Fender Removal
Tide	Flood		
Source Location	Pier 9		

Sample Location		Upcurrent (Ambient)											Downcurrent										
Distance to Source		Approx. 500 - 1000 ft[1]											Outside Silt Curtain[2]										
Sample ID		062713-DEM-F-U											062713-DEM-F-D										
Parameter		Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene
Unit		(ppm)	(ppb)											(ppm)	(ppb)										
Detection Limit[3]		Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1	Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1
Water Quality Standard[3]		*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006	*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006
Analytical Result[4]	S	28.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	53.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	M	41.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	48.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	B	50.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	68.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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Created by: J. Van den Sype
Checked by: V. Whalon

Date	7/1/13		
Survey Type	V - Vessel Based		
Construction Activity	DEM - Demolition	Comments	Fender Removal
Tide	Ebb		
Source Location	Pier 11		

Sample Location		Upcurrent (Ambient)												Downcurrent											
Distance to Source		Approx. 500 - 1000 ft[1]												Outside Silt Curtain[2]											
Sample ID		070113-DEM-E-U												070113-DEM-E-D											
Parameter		Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene
Unit		(ppm)	(ppb)											(ppm)	(ppb)										
Detection Limit[3]		Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1	Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1
Water Quality Standard[3]		*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006	*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006
Analytical Result[4]	S	25.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	26.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	M	24.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	36.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	B	25.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	371	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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Created by: J. Van den Sype
Checked by: N. Wood

Date	7/2/13		
Survey Type	V - Vessel Based		
Construction Activity	DEM - Demolition	Comments	Fender Removal
Tide	Flood		
Source Location	Pier 13		

Sample Location		Upcurrent (Ambient)											Downcurrent											
Distance to Source		Approx. 500 - 1000 ft[1]											Outside Silt Curtain[2]											
Sample ID		070213-DEM-F-U											070213-DEM-F-D											
Parameter		Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene
Unit		(ppm)	(ppb)											(ppm)	(ppb)										
Detection Limit[3]		Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1	Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1
Water Quality Standard[3]		*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006	*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006
Analytical Result[4]	S	23.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	30.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	M	24.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	25.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	B	30.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	36.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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Created by: J. Van den Sype
Checked by: N. Wood

Date	7/2/13		
Survey Type	V - Vessel Based		
Construction Activity	DEM - Demolition	Comments	Fender Removal
Tide	Ebb		
Source Location	Pier 14		

Sample Location		Upcurrent (Ambient)											Downcurrent											
Distance to Source		Approx. 500 - 1000 ft[1]											Outside Silt Curtain[2]											
Sample ID		070213-DEM-E-U											070213-DEM-E-D											
Parameter		Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene
Unit		(ppm)	(ppb)											(ppm)	(ppb)										
Detection Limit[3]		Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1	Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1
Water Quality Standard[3]		*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006	*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006
Analytical Result[4]	S	19.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	23.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.28	ND
	M	19.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	53.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.35	ND
	B	20.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	42.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.21	ND

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Created by: J. Van den Sype
Checked by:N. Wood

Date	7/3/13		
Survey Type	V - Vessel Based		
Construction Activity	DEM - Demolition	Comments	Fender Removal
Tide	Flood		
Source Location	Pier 15		

Sample Location		Upcurrent (Ambient)											Downcurrent										
Distance to Source		Approx. 500 - 1000 ft[1]											Outside Silt Curtain[2]										
Sample ID		070313-DEM-F-U											070313-DEM-F-D										
Parameter		Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene
Unit		(ppm)	(ppb)											(ppm)	(ppb)										
Detection Limit[3]		Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1	Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1
Water Quality Standard[3]		*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006	*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006
Analytical Result[4]	S	20.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	23.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.22	ND
	M	20.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	22.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	B	32.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	72.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0	ND

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* None from sewage, industrial waste or other wastes that will cause deposition or impair the waters for their best usages

ND Not Detected

[4] S = Near Surface, M = Mid-Depth, B = Near Bottom

Created by: J. Van den Sype
Checked by: N. Wood

Date	7/3/13		
Survey Type	V - Vessel Based		
Construction Activity	DEM - Demolition	Comments	Fender Removal
Tide	Ebb		
Source Location	Pier 16		

Sample Location		Upcurrent (Ambient)											Downcurrent										
Distance to Source		Approx. 500 - 1000 ft[1]											Outside Silt Curtain[2]										
Sample ID		070313-DEM-E-U											070313-DEM-E-D										
Parameter		Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene
Unit		(ppm)	(ppb)											(ppm)	(ppb)										
Detection Limit[3]		Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1	Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1
Water Quality Standard[3]		*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006	*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006
Analytical Result[4]	S	15.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	28.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.3	ND
	M	19.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	32.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.9	ND
	B	18.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	49.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.2	ND

Notes:

[1] Samples collected at a location up current of the source where the water quality effects of the project are no longer discernible

[2] Samples were collected as close as safely possible to the silt curtain

[3] Based on New York State Department of Environmental Conservation Permit Facility ID 3-9903-00043/00012-14

-- No detection limit or water quality standard

* None from sewage, industrial waste or other wastes that will cause deposition or impair the waters for their best usages

ND Not Detected

[4] S = Near Surface, M = Mid-Depth, B = Near Bottom

Created by: J. Van den Sype
Checked by: V. Whalon

Date		7/8/13																							
Survey Type		V - Vessel Based																							
Construction Activity		DEM - Demolition			**Comments**			Fender Removal																	
Tide		Flood																							
Source Location		Pier 17																							
Sample Location		**Upcurrent (Ambient)**												**Downcurrent**											
Distance to Source		Approx. 500 - 1000 ft[1]												Outside Silt Curtain[2]											
Sample ID		070813-DEM-F-U												070813-DEM-F-D											
Parameter		**Total Suspended Solids**	**Mercury**	**Nickel**	**Copper**	**Lead**	**Zinc**	**PCB**				**Naphthalene**	**Benzo(a)pyrene**	**Total Suspended Solids**	**Mercury**	**Nickel**	**Copper**	**Lead**	**Zinc**	**PCB**				**Naphthalene**	**Benzo(a)pyrene**
								Aroclor 1242	**Aroclor 1248**	**Aroclor 1254**	**Aroclor 1260**									**Aroclor 1242**	**Aroclor 1248**	**Aroclor 1254**	**Aroclor 1260**		
Unit		(ppm)	(ppb)											(ppm)	(ppb)										
Detection Limit[3]		Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1	Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1
Water Quality Standard[3]		*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006	*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006
Analytical Result[4]	**S**	22.4	ND	ND	ND	ND	11	ND	ND	ND	ND	ND	ND	20.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	M	23.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	36.4	ND	ND	ND	ND	11	ND	ND	ND	ND	ND	ND
	B	26.8	ND	ND	ND	ND	11	ND	ND	ND	ND	ND	ND	41.6	ND	ND	ND	ND	10	ND	ND	ND	ND	ND	ND

Notes:

[1] Samples collected at a location up current of the source where the water quality effects of the project are no longer discernible

[2] Samples were collected as close as safely possible to the silt curtain

[3] Based on New York State Department of Environmental Conservation Permit Facility ID 3-9903-00043/00012-14

-- No detection limit or water quality standard

* None from sewage, industrial waste or other wastes that will cause deposition or impair the waters for their best usages

ND Not Detected

[4] S = Near Surface, M = Mid-Depth, B = Near Bottom

Created by: J. Van den Sype
Checked by: V. Whalon

Date	7/9/13		
Survey Type	V - Vessel Based		
Construction Activity	DEM - Demolition	Comments	Fender Removal
Tide	Ebb		
Source Location	Pier 19		

Sample Location		Upcurrent (Ambient)												Downcurrent											
Distance to Source		Approx. 500 - 1000 ft[1]												Outside Silt Curtain[2]											
Sample ID		070913-DEM-E-U												070913-DEM-E-D											
Parameter		Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene
Unit		(ppm)	(ppb)											(ppm)	(ppb)										
Detection Limit[3]		Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1	Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1
Water Quality Standard[3]		*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006	*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006
Analytical Result[4]	S	22.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	23.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.10	ND
	M	28.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	23.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	B	30.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	30.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.50	ND

Notes:

[1] Samples collected at a location up current of the source where the water quality effects of the project are no longer discernible

[2] Samples were collected as close as safely possible to the silt curtain

[3] Based on New York State Department of Environmental Conservation Permit Facility ID 3-9903-00043/00012-14

-- No detection limit or water quality standard

* None from sewage, industrial waste or other wastes that will cause deposition or impair the waters for their best usages

ND Not Detected

[4] S = Near Surface, M = Mid-Depth, B = Near Bottom

Edwards, Kristine

From: Edwards, Kristine (DOT) <Kristine.Edwards@dot.ny.gov>
Sent: Thursday, July 18, 2013 10:52 AM
To: Edwards, Kristine
Subject: FW: Fwd: 20130715 Form NYSTA_TZC_NCR_ENV_03015.pdf

-----Original Message-----
From: John Ferguson [mailto:jjfergus@gw.dec.state.ny.us]
Sent: Thursday, July 18, 2013 10:30 AM
To: Edwards, Kristine (DOT)
Subject: Re: Fwd: 20130715 Form NYSTA_TZC_NCR_ENV_03015.pdf

Kristine - Regarding the results for nickel on July 10: The sample collection occurred during flood tide and is the result shows the only detectable value for nickel of all the samples collected thus far. The sample was taken at the surface, but the samples collected at mid-depth and at the bottom were non-detect for nickel. The samples taken at ebb tide on that same day were non-detect for nickel at all three sampling depths. In addition, all other sample results we have received thus far were non-detect for nickel at all three sampling depths at both flood and ebb tides. Therefore we consider the July 10 flood tide surface sample result for nickel suspect data. We will continue to review sampling data as we receive it, but recommend no action in response to this result at this time.

J Ferguson

Created by: J. Van den Sype
Checked by: V. Whalon

Date	7/10/13		
Survey Type	V - Vessel Based		
Construction Activity	DEM - Demolition	Comments	Fender Removal
Tide	Ebb		
Source Location	Pier 20		

Sample Location		Upcurrent (Ambient)												Downcurrent											
Distance to Source		Approx. 500 - 1000 ft[1]												Outside Silt Curtain[2]											
Sample ID		071013-DEM-E-U												071013-DEM-E-D											
Parameter		Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB				Naphthalene	Benzo(a)pyrene	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB				Naphthalene	Benzo(a)pyrene
								Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260									Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260		
Unit		(ppm)	(ppb)											(ppm)	(ppb)										
Detection Limit[3]		Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1	Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1
Water Quality Standard[3]		*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006	*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006
Analytical Result[4]	S	20.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	24.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.13	ND
	M	21.6	ND	ND	ND	ND	11	ND	ND	ND	ND	ND	ND	32.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.074	ND
	B	28.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	28.0	ND	ND	3.4	ND	12	ND	ND	ND	ND	0.23	ND

Notes:

[1] Samples collected at a location up current of the source where the water quality effects of the project are no longer discernible

[2] Samples were collected as close as safely possible to the silt curtain

[3] Based on New York State Department of Environmental Conservation Permit Facility ID 3-9903-00043/00012-14

-- No detection limit or water quality standard

* None from sewage, industrial waste or other wastes that will cause deposition or impair the waters for their best usages

ND Not Detected

[4] S = Near Surface, M = Mid-Depth, B = Near Bottom

Created by: J. Van den Sype
Checked by: V. Whalon

Date	7/10/13		
Survey Type	V - Vessel Based		
Construction Activity	DEM - Demolition	Comments	Fender Removal
Tide	Flood		
Source Location	Pier 21		

Sample Location		Upcurrent (Ambient)											Downcurrent											
Distance to Source		Approx. 500 - 1000 ft[1]											Outside Silt Curtain[2]											
Sample ID		071013-DEM-F-U											071013-DEM-F-D											
Parameter		Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene
Unit		(ppm)	(ppb)											(ppm)	(ppb)										
Detection Limit[3]		Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1	Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1
Water Quality Standard[3]		*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006	*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006
Analytical Result[4]	S	18.8	ND	ND	ND	ND	10	ND	ND	ND	ND	ND	ND	25.2	ND	11	ND	ND	11	ND	ND	ND	ND	0.19	ND
	M	18.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	47.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.33	ND
	B	24.4	ND	ND	ND	ND	10	ND	ND	ND	ND	ND	ND	32.8	ND	ND	ND	ND	10	ND	ND	ND	ND	0.21	ND

Notes:

[1] Samples collected at a location up current of the source where the water quality effects of the project are no longer discernible

[2] Samples were collected as close as safely possible to the silt curtain

[3] Based on New York State Department of Environmental Conservation Permit Facility ID 3-9903-00043/00012-14

-- No detection limit or water quality standard

* None from sewage, industrial waste or other wastes that will cause deposition or impair the waters for their best usages

ND Not Detected

[4] S = Near Surface, M = Mid-Depth, B = Near Bottom

Created by: J. Van den Sype
Checked by: N. Wood

Date	7/11/13		
Survey Type	V - Vessel Based		
Construction Activity	DEM - Demolition	Comments	
Tide	Ebb		
Source Location	Pier 22		

Sample Location		Upcurrent (Ambient)											Downcurrent											
Distance to Source		Approx. 500 - 1000 ft[1]											Outside Silt Curtain[2]											
Sample ID		071113-DEM-E-U											071113-DEM-E-D											
Parameter		Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene
Unit		(ppm)	(ppb)											(ppm)	(ppb)										
Detection Limit[3]		Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1	Ambient + 100	0.05	--	--		--	0.2	0.2	0.2	0.2	--	0.1
Water Quality Standard[3]		*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006	*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006
Analytical Result[4]	S	28.0	ND	ND	3.7	ND	ND	ND	ND	ND	ND	ND	ND	58.0	ND	ND	3.6	ND	10	ND	ND	ND	ND	1.2	ND
	M	29.6	ND	ND	3.7	ND	12	ND	ND	ND	ND	ND	ND	78.8	ND	ND	3.5	ND	13	ND	ND	ND	ND	2.4	ND
	B	36.8	ND	ND	4.1	ND	14	ND	ND	ND	ND	ND	ND	92.8	ND	ND	3.5	ND	10	ND	ND	ND	ND	3.3	ND

Notes:

[1] Samples collected at a location up current of the source where the water quality effects of the project are no longer discernible

[2] Samples were collected as close as safely possible to the silt curtain

[3] Based on New York State Department of Environmental Conservation Permit Facility ID 3-9903-00043/00012-14

-- No detection limit or water quality standard

* None from sewage, industrial waste or other wastes that will cause deposition or impair the waters for their best usages

ND Not Detected

[4] S = Near Surface, M = Mid-Depth, B = Near Bottom

Upcurrent (Ambient) concentration exceeds the Water Quality Standard. Downcurrent concentration is less than 30% over background.[3]

Created by: J. Van den Sype
Checked by: N. Wood

Date	7/11/13		
Survey Type	V - Vessel Based		
Construction Activity	DEM - Demolition	Comments	
Tide	Flood		
Source Location	Pier 23		

Sample Location		Upcurrent (Ambient)												Downcurrent											
Distance to Source		Approx. 500 - 1000 ft[1]												Outside Silt Curtain[2]											
Sample ID		071113-DEM-F-U												071113-DEM-F-D											
Parameter		Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene
Unit		(ppm)	(ppb)											(ppm)	(ppb)										
Detection Limit[3]		Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1	Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1
Water Quality Standard[3]		*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006	*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006
Analytical Result[4]	S	14.8	ND	ND	3.5	ND	ND	ND	ND	ND	ND	ND	ND	26.4	ND	ND	3.5	ND	ND	ND	ND	ND	ND	2.8	ND
	M	14.8	ND	ND	3.7	ND	11	ND	ND	ND	ND	ND	ND	35.2	ND	ND	3.5	ND	ND	ND	ND	ND	ND	0.94	ND
	B	21.2	ND	ND	3.6	ND	ND	ND	ND	ND	ND	ND	ND	18.0	ND	ND	4.3	ND	16	ND	ND	ND	ND	0.89	ND

Notes:

[1] Samples collected at a location up current of the source where the water quality effects of the project are no longer discernible

[2] Samples were collected as close as safely possible to the silt curtain

[3] Based on New York State Department of Environmental Conservation Permit Facility ID 3-9903-00043/00012-14

-- No detection limit or water quality standard

* None from sewage, industrial waste or other wastes that will cause deposition or impair the waters for their best usages

ND Not Detected

[4] S = Near Surface, M = Mid-Depth, B = Near Bottom

Upcurrent (Ambient) concentration exceeds the Water Quality Standard. Downcurrent concentration is less than 30% over background.[3]

Created by: J. Van den Sype
Checked by: N. Wood

Date	7/15/13		
Survey Type	V - Vessel Based		
Construction Activity	DEM - Demolition	Comments	Timber Pile Cluster Removal
Tide	Ebb		
Source Location	Pier 24		

Sample Location		Upcurrent (Ambient)											Downcurrent										
Distance to Source		Approx. 500 - 1000 ft[1]											Outside Silt Curtain[2]										
Sample ID		071513-DEM-E-U											071513-DEM-E-D										
Parameter		Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB				Naphthalene	Benzo(a)pyrene	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB				Naphthalene	Benzo(a)pyrene
								Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260									Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260		
Unit		(ppm)	(ppb)											(ppm)	(ppb)										
Detection Limit[3]		Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1	Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1
Water Quality Standard[3]		*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006	*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006
Analytical Result[4]	S	12.4	ND	ND	4.2	ND	12	ND	ND	ND	ND	ND	ND	23.2	ND	ND	4.4	ND	10	ND	ND	ND	ND	0.93	ND
	M	22.0	ND	ND	4.2	ND	ND	ND	ND	ND	ND	ND	ND	24.4	ND	ND	4.8	ND	12	ND	ND	ND	ND	0.21	ND
	B	28.0	ND	ND	4.3	ND	10	ND	ND	ND	ND	ND	ND	35.2	ND	ND	4.1	ND	14	ND	ND	ND	ND	4.4	ND

Notes:

[1] Samples collected at a location up current of the source where the water quality effects of the project are no longer discernible

[2] Samples were collected as close as safely possible to the silt curtain

[3] Based on New York State Department of Environmental Conservation Permit Facility ID 3-9903-00043/00012-14

-- No detection limit or water quality standard

* None from sewage, industrial waste or other wastes that will cause deposition or impair the waters for their best usages

ND Not Detected

[4] S = Near Surface, M = Mid-Depth, B = Near Bottom

[5] Upcurrent (ambient) concentration exceed the Water Quality Standard, Downcurrent concentration is less than 30% over background.

Created by: J. Van den Sype
Checked by: N. Wood

Date		7/15/13																							
Survey Type		V - Vessel Based																							
Construction Activity		DEM - Demolition			**Comments**		Timber Pile Cluster Removal																		
Tide		Flood																							
Source Location		Pier 26																							
Sample Location		**Upcurrent (Ambient)**											**Downcurrent**												
Distance to Source		Approx. 500 - 1000 ft[1]											Outside Silt Curtain[2]												
Sample ID		071513-DEM-F-U											071513-DEM-F-D												
Parameter		**Total Suspended Solids**	**Mercury**	**Nickel**	**Copper**	**Lead**	**Zinc**	**PCB**				**Naphthalene**	**Benzo(a)pyrene**	**Total Suspended Solids**	**Mercury**	**Nickel**	**Copper**	**Lead**	**Zinc**	**PCB**				**Naphthalene**	**Benzo(a)pyrene**
								Aroclor 1242	**Aroclor 1248**	**Aroclor 1254**	**Aroclor 1260**									**Aroclor 1242**	**Aroclor 1248**	**Aroclor 1254**	**Aroclor 1260**		
Unit		(ppm)	(ppb)											(ppm)	(ppb)										
Detection Limit[3]		Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1	Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1
Water Quality Standard[3, 5]		*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006	*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006
Analytical Result[4]	**S**	11.6	*ND*	*ND*	4.3	*ND*	10	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	23.2	*ND*	*ND*	4.5	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*
	M	18.8	*ND*	*ND*	4.4	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	16.8	*ND*	*ND*	4.3	*ND*	10	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*
	B	20.4	0.1	*ND*	4.4	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	22.0	*ND*	*ND*	4.6	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	0.26	*ND*

Notes:

[1] Samples collected at a location up current of the source where the water quality effects of the project are no longer discernible

[2] Samples were collected as close as safely possible to the silt curtain

[3] Based on New York State Department of Environmental Conservation Permit Facility ID 3-9903-00043/00012-14

-- No detection limit or water quality standard

* None from sewage, industrial waste or other wastes that will cause deposition or impair the waters for their best usages

ND Not Detected

[4] S = Near Surface, M = Mid-Depth, B = Near Bottom

[5] Upcurrent (ambient) concentration exceed the Water Quality Standard, Downcurrent concentration is less than 30% over background.

Created by: J. Van den Sype
Checked by: V. Whalon

Date	7/16/13		
Survey Type	V - Vessel Based		
Construction Activity	DEM - Demolition	Comments	Timber Pile Cluster Removal
Tide	Ebb		
Source Location	Pier 27		

Sample Location		Upcurrent (Ambient)												Downcurrent											
Distance to Source		Approx. 500 - 1000 ft[1]												Outside Silt Curtain[2]											
Sample ID		071613-DEM-E-U												071613-DEM-E-D											
Parameter		Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB				Naphthalene	Benzo(a)pyrene	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB				Naphthalene	Benzo(a)pyrene
								Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260														
Unit		(ppm)	(ppb)											(ppm)	(ppb)										
Detection Limit[3]		Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1	Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1
Water Quality Standard[3]		*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006	*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006
Analytical Result[4]	S	24.0	ND	ND	3.8	ND	ND	ND	ND	ND	ND	ND	ND	59.2	ND	ND	4.0	ND	ND	ND	ND	ND	ND	ND	ND
	M	24.8	ND	ND	3.8	ND	ND	ND	ND	ND	ND	ND	ND	31.2	ND	ND	4.0	ND	ND	ND	ND	ND	ND	0.063	ND
	B	40.4	ND	ND	4.1	ND	ND	ND	ND	ND	ND	ND	ND	39.2	ND	ND	4.1	ND	ND	ND	ND	ND	ND	0.16	ND

Notes:

[1] Samples collected at a location up current of the source where the water quality effects of the project are no longer discernible

[2] Samples were collected as close as safely possible to the silt curtain

[3] Based on New York State Department of Environmental Conservation Permit Facility ID 3-9903-00043/00012-14

-- No detection limit or water quality standard

* None from sewage, industrial waste or other wastes that will cause deposition or impair the waters for their best usages

ND Not Detected

[4] S = Near Surface, M = Mid-Depth, B = Near Bottom

[5] Upcurrent (ambient) concentration exceed the Water Quality Standard, Downcurrent concentration is less than 30% over background.

Created by: J. Van den Sype
Checked by: V. Whalon

Date	7/16/13		
Survey Type	V - Vessel Based		
Construction Activity	DEM - Demolition	Comments	Timber Pile Cluster Removal
Tide	Flood		
Source Location	Pier 28		

Sample Location		Upcurrent (Ambient)												Downcurrent											
Distance to Source		Approx. 500 - 1000 ft[1]												Outside Silt Curtain[2]											
Sample ID		071613-DEM-F-U												071613-DEM-F-D											
Parameter		Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene
Unit		(ppm)	(ppb)											(ppm)	(ppb)										
Detection Limit[3]		Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1	Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1
Water Quality Standard[3, 5]		*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006	*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006
Analytical Result[4]	S	22.8	ND	ND	4.2	ND	10	ND	ND	ND	ND	ND	ND	58.0	ND	ND	4.0	ND	ND	ND	ND	ND	ND	0.70	ND
	M	33.6	ND	ND	3.8	ND	ND	ND	ND	ND	ND	ND	ND	74.0	ND	ND	3.8	ND	ND	ND	ND	ND	ND	0.13	ND
	B	63.2	ND	ND	4.2	ND	ND	ND	ND	ND	ND	ND	ND	40.4	ND	ND	4.5	ND	12	ND	ND	ND	ND	0.95	ND

Notes:

[1] Samples collected at a location up current of the source where the water quality effects of the project are no longer discernible

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[3] Based on New York State Department of Environmental Conservation Permit Facility ID 3-9903-00043/00012-14

-- No detection limit or water quality standard

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ND Not Detected

[4] S = Near Surface, M = Mid-Depth, B = Near Bottom

[5] Upcurrent (ambient) concentration exceed the Water Quality Standard, Downcurrent concentration is less than 30% over background.

Created by: J. Van den Sype
Checked by: V. Whalon

Date	7/17/13		
Survey Type	V - Vessel Based		
Construction Activity	DEM - Demolition	Comments	Timber Pile Cluster Removal
Tide	Ebb		
Source Location	Pier 29		

Sample Location		Upcurrent (Ambient)												Downcurrent											
Distance to Source		Approx. 500 - 1000 ft[1]												Outside Silt Curtain[2]											
Sample ID		071713-DEM-E-U												071713-DEM-E-D											
Parameter		Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene
Unit		(ppm)	(ppb)											(ppm)	(ppb)										
Detection Limit[3]		Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1	Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1
Water Quality Standard[3]		*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006	*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006
Analytical Result[4]	S	18.0	ND	ND	4.0	ND	13	ND	ND	ND	ND	ND	ND	27.2	ND	ND	3.7	ND	ND	ND	ND	ND	ND	ND	ND
	M	26.0	ND	ND	3.9	ND	ND	ND	ND	ND	ND	ND	ND	38.0	ND	ND	4.0	ND	11	ND	ND	ND	ND	ND	ND
	B	26.0	ND	ND	3.9	ND	11	ND	ND	ND	ND	ND	ND	50.8	ND	ND	4.0	ND	11	ND	ND	ND	ND	0.51	ND

Notes:

[1] Samples collected at a location up current of the source where the water quality effects of the project are no longer discernible

[2] Samples were collected as close as safely possible to the silt curtain

[3] Based on New York State Department of Environmental Conservation Permit Facility ID 3-9903-00043/00012-14

-- No detection limit or water quality standard

* None from sewage, industrial waste or other wastes that will cause deposition or impair the waters for their best usages

ND Not Detected

[4] S = Near Surface, M = Mid-Depth, B = Near Bottom

[5] Upcurrent (ambient) concentration exceed the Water Quality Standard, Downcurrent concentration is less than 30% over background.

Created by: J. Van den Sype
Checked by: V. Whalon

Date	7/18/13		
Survey Type	V - Vessel Based		
Construction Activity	DEM - Demolition	Comments	Timber Pile Cluster Removal
Tide	Flood		
Source Location	Pier 31		

Sample Location	Upcurrent (Ambient)												Downcurrent											
Distance to Source	Approx. 500 - 1000 ft[1]												Outside Silt Curtain[2]											
Sample ID	071813-DEM-F-U												071813-DEM-F-D											
Parameter	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene	Total Suspended Solids	Mercury	Nickel	Copper	Lead	Zinc	PCB Aroclor 1242	PCB Aroclor 1248	PCB Aroclor 1254	PCB Aroclor 1260	Naphthalene	Benzo(a)pyrene
Unit	(ppm)	(ppb)											(ppm)	(ppb)										
Detection Limit[3]	Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1	Ambient + 100	0.05	--	--	--	--	0.2	0.2	0.2	0.2	--	0.1
Water Quality Standard[3, 5]	*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006	*	0.0007	8.2	3.4	8	66	--	--	--	--	16	0.0006
Analytical Result[4] S	12.8	ND	ND	4.2	ND	ND	ND	ND	ND	ND	ND	ND	12.8	ND	ND	4.4	ND	19	ND	ND	ND	ND	ND	ND
Analytical Result[4] M	21.2	ND	ND	4.0	ND	ND	ND	ND	ND	ND	ND	ND	14.0	ND	ND	4.1	ND	ND	ND	ND	ND	ND	ND	ND
Analytical Result[4] B	19.2	ND	ND	4.2	ND	11	ND	ND	ND	ND	ND	ND	39.2	ND	ND	3.9	ND	11	ND	ND	ND	ND	ND	ND

Notes:

[1] Samples collected at a location up current of the source where the water quality effects of the project are no longer discernible

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