Memorandum

To: *Stephanie Vaughn (USEPA)*
Elizabeth Buckrucker (USACE)

From: *Sharon Budney (CDM SMITH)*
George Molnar (CDM SMITH)

Date: *November 15, 2013*

Re: *Status Report (September 23 to October 26, 2013)*
CPG Oversight of the Low Resolution Coring Second Supplemental Sampling Program
Lower Passaic River Restoration Project

On behalf of the United States Environmental Protection Agency (EPA) and the United States Army Corps of Engineers (USACE), Kansas City District, CDM Federal Programs Corporation (CDM Smith) provided oversight of the Cooperating Parties Group (CPG) remedial investigation/feasibility study (RI/FS) field activities associated with the Low Resolution Coring Second Supplemental Sampling Program (LRCSSP) in the Lower Passaic River (LPR).

Field activities were conducted from June 3 through June 6, 2013 and September 24 through October 25, 2013. The June 3 through June 6, 2013 event was a sediment probing survey used to determine potential sampling locations for the LRCSSP. The LRCSSP ran from September 23 through October 26, 2013 and included the collection of low resolution cores (LRC) and grab samples.

All activities were conducted in accordance with the Lower Passaic River Restoration Project, Low Resolution Coring Supplemental Sampling Program Addendum, Second Supplemental Sampling Program Quality Assurance Project Plan (QAPP), Revision 1, dated September 2013.

Photographs of field activities can be found in Attachment 1. Split samples collected over the course of the LRCSSP are presented in Attachment 2. Copies of split sample Chain-of-Custodies (COCs) can be found in Attachment 3. Copies of logbook notes can be found in Attachment 4. A summary of the number/type of samples collected by the CPG including if grab and LRCs were/were not collected can be found in Attachment 5.

General Summary

Oversight consisted of observations of on-river and off-river activities conducted by CPG subcontractors AECOM and Ocean Surveys, Inc. (OSI).

Field activities were conducted from June 3 through June 6, 2013 and September 24 through October 25, 2013. The June 3 through June 6 event was a sediment probing survey used to determine potential sample locations for LRCSSP. A total of 293 locations were evaluated. At each location, crews measured water depth, total depth of probe penetration, noted the type of substrate, and determined if a proposed location needed to be moved or abandoned.

The LRCSSP ran from September 23 through October 26, 2013 and included the collection of LRCs and grab samples. During this event, additional sediment probing efforts were conducted within the Third River. A total of 22 locations were evaluated to identify potential LRC sample locations. A total of three locations were identified within the Third River as potential LRC locations.

Over the course of all field activities, CPG crews navigated to each sample location or proposed location using a global positioning system (GPS). OSI maintained position at each location by using a two to three-way anchor system. This ensured that the sampling vessel stayed within close proximity to the sample location. Locations were verified by oversight staff using figures provided in AECOM's QAPP.

Pressure transducers were deployed on the first day of the field program to measure river levels over the course of the entire LRCSSP, and were deployed in stilling wells at the following locations: River Mile 6.7 bulkhead, Route 7 Bridge, DeJesse Bridge, railroad bridge south of Route 3, Union Avenue Bridge, Gregory Avenue Bridge, and the Monroe Street Bridge. Instruments were set to record data every ten minutes and were downloaded at the end of each week. All units were pulled at the end of the LRSSCP.

Attempts were made to collect LRCs at each approved location where they were divided into sampling intervals ranging from 0.5 foot to 1 foot in length. Samples from LRCs were analyzed for a full list of analyses including polychlorinated dibenzodioxins (PCDDs)/polychlorinated dibenzofurans (PCDFs), polychlorinated biphenyl (PCB) congeners and homologs, polycyclic aromatic hydrocarbons (PAHs), semivolatile organic compounds (SVOCs), organochlorine pesticides, butyltins, metals, mercury, total petroleum hydrocarbons (TPH)-extractables, cyanide, total organic carbon (TOC), grain size, percent moisture and specific gravity.

All sediment cores were collected using a pneumatic vibratory corer equipped with a 10 to 20 foot core barrel. The water depth was measured, the core barrel was loaded with a decontaminated 4-inch diameter lexane sample liner, and the core was advanced to the desired depth at each sample location. Upon reaching the desired depth, the core barrel was lifted back up to the surface and the sample liner was removed from the core barrel. The sample core liner was kept in the upright position when removing from the core barrel and at all times up until reaching the processing station. Measurements were made on each sample core to determine total recovery. The sample was kept to process if total recovery was greater than 80%. All successful core samples were stored in specially designed coolers in the upright position. Throughout the day, a transport vessel would transfer cores from each of the sampling vessels back to the CPG facility. Samples were constantly kept on ice throughout the transfer process. A detailed COC form was used to track each core as it was transported back to the facility.

Grab samples were collected at each location using a pneumatic grab sampler. Prior to sample collection, the grab sampler was decontaminated. At each location, water depth was measured and the grab sampler bucket was lowered and closed upon reaching the river bottom. The sampler was lifted to the surface, excess water was siphoned from the bucket, and the sediment depth was measured to confirm there was at least six inches of material recovered. At each successful grab location, a detailed lithologic description of sediment was recorded, screened for volatile organic compounds (VOCs) using a photoionization detector (PID), and placed into the appropriate sample jars. All samples were stored on ice and transported back to the CPG facility with the sediment cores.

Sediment cores were stored in the upright position inside a walk-in-refrigerator at the CPG facility until they were ready to be processed. Each core was processed individually in a ventilated tent and were weighed and drained of excess water. Salinity measurements were taken using a refractometer in the processing tent from water found in either the grab samples or above the top of the core. Salinity measurements were not taken from certain samples due to lack of water present.

For the LRCs, the top 0 to 0.5 foot section of material was removed from the core while it was standing upright in a core stand prior to being cut open and processed as interval “A”. Following the removal of the top 0.5 foot of material, the core was cut open, photographed and lithology was logged. Additional sediment was often taken from the grab sample containers to help fill jars for the “A” interval at locations that had poor core recovery. Intervals below interval “A” included: interval “B” from 0.5 to 1.5 feet, interval “C” from 1.5 to 2.5 feet, and a final 1-foot sample collected above native material or where refusal was met. The final interval changed at each location depending on the depth native material or refusal was encountered. If refusal was met and native material was not encountered, the bottom foot was sent off for analysis.

Sediment from each interval below interval “A” was carefully placed into decontaminated stainless-steel bowls, screened for VOCs and mercury , photographed , and homogenized using stainless-steel spoons. The homogenized sediment from each interval was placed into labeled sample jars, entered into AECOM’s sample tracking system, and placed back into a walk-in refrigerator and held until shipment to their respective laboratories. A total of 228 samples consisting of both LRC and grab samples were submitted for the full suite of analyses; 22 of the 228 samples were grab only samples, with no corresponding LRC samples either because they were intended to be “grab only” samples, or due to poor core recovery (Attachment 5). A total of 27 split samples which included two field duplicates were collected during the LRCSSP (Attachments 2 and 3).

Due to elevated PCDD/PCDF concentrations found at a previously sampled LRC location, 13B-0547, two high resolution cores (HRC) and one additional LRC were added to the program to further delineate the area. This was documented in CPG’s field modification FM-131031-1. The additional LRC and corresponding grab sample were collected from 13B-0578 and the two HRCs were collected from locations 13B-0547 and 13B-0578. Samples collected from 13B-0578 were analyzed for the same suite of analyses as the other LRC and grab samples. The HRCs were divided into 0.25 foot sampling intervals down to native material. The top three feet were collected for analysis while any remaining material was

archived. Samples were analyzed for radiochemistry analytes, cesium 137 and lead 210, PCDD/PCDF, and pesticides.

Summary of Weekly Oversight Activities

The following is a summary of weekly activities observed during the course of the LRCSSP2 field effort:

June 3 – June 6: CDM Smith oversight staff observed sediment probing activities.

September 24 – September 27: CDM Smith oversight staff observed the collection of samples at locations 13B-0547, 13B-0546, 13B-0551, 13B-0504, 13B-0505, 13B-0560, 13B-0562, and 13B-0510.

Oversight staff observed the processing of samples from locations 13B-0547, 13B-0530, and 13B-0533.

Split samples were collected from samples collected from locations 13B-0547, 13B-0564, 13B-0530, 13B-0533, and 13B-0560 (Attachments 2 and 3).

In addition, a sediment probing survey was conducted within the Third River and at the confluence with the Passaic River to identify additional potential LRC sampling locations. Crews were able to navigate approximately ¼ mile upstream up to where a fallen tree blocked the river. Results of the survey indicated that conditions were favorable to collect LRCs within the Third River.

September 30 – October 4: CDM Smith oversight staff observed the collection of samples at locations 13B-0561, 13B-0559, 13B-0572, 13B-0573, 13B-0574, 13B-0557, 13B-0571, 13B-0558, and 13B-0570.

Oversight staff observed the processing of samples collected from locations 13B-0560, 13B-0572, and 13B-0557.

Split samples were collected from 13B-0559, 13B-0503, 13B-0501, and 13B-0574 (Attachments 2 and 3).

October 7 – October 11: CDM Smith oversight staff observed the collection of samples at locations 13B-0556, 13B-0511, 13B-0528, 13B-0516, 13B-0518, 13B-0541, and 13B-0542.

Oversight staff observed the processing of samples collected from locations 13B-0556, 13B-0528, and 13B-0516.

Split samples were collected from 13B-0571, 13B-0567, 13B-0556, 13B-0511, 13B-0527, and 13B-0521 (Attachments 2 and 3).

October 14 – October 18: CDM Smith oversight staff observed the collection of sample at locations 13B-0554, 13B-0540, 13B-0539, 13B-0544, 13B-0549, 13B-0552, and 13B-0548.

Oversight staff observed the processing of samples collected from locations 13B-0531, 13B-0509, 13B-0537, and 13B-0539.

Split samples were collected from 13B-0531 (Attachments 2 and 3).

October 21 – October 25: CDM Smith oversight staff observed the collection of samples at locations 13B-0519 and 13B-0578. Grab samples were collected at locations 13B-0517 and 13B-0523.

Oversight staff observed the processing of samples collected from locations 13B-0519, 13B-0517, and 13B-0578.

In addition, two HRCs were collected from locations 13B-0578-H and 13B-0547-H.

Attachment 1

Photographs of Field Activities

Photo 1 - Vibracore Core Barrel Sampler

Photo 2: Vibracoring at SSP2 location 13B-0547

Photo 3 – Pulling up core barrel at SSP2 location 13B-0547

Photo 4 - Removing shoe from core barrel to extrude sample liner

Photo 5 – Removal of sample liner from core barrel

Photo 6 – Core liner was cut into 5’ sections to enable safe handling during transportation

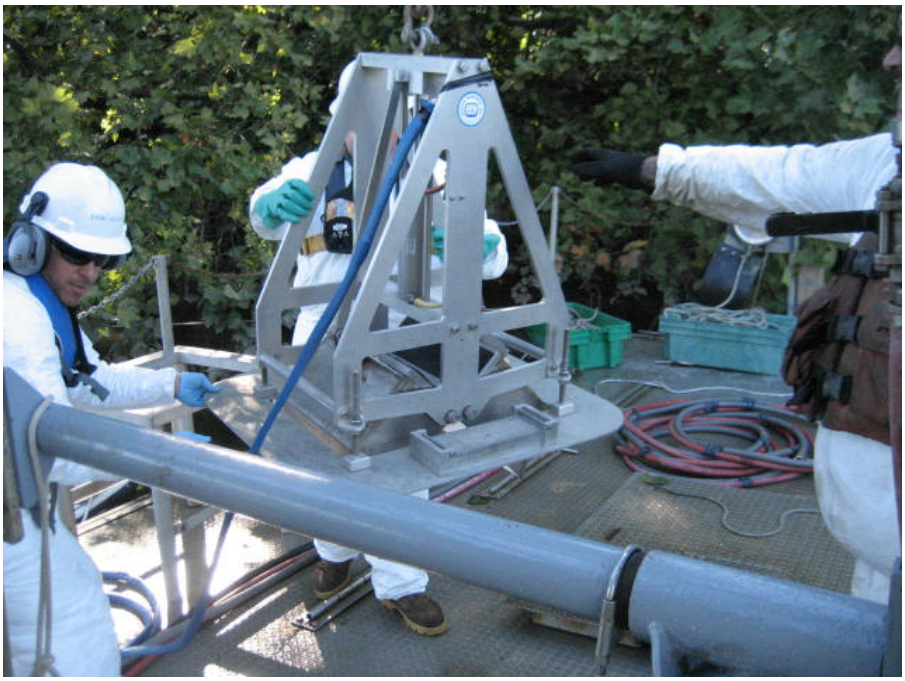

Photo 7 – Lowering Powergrab sampler

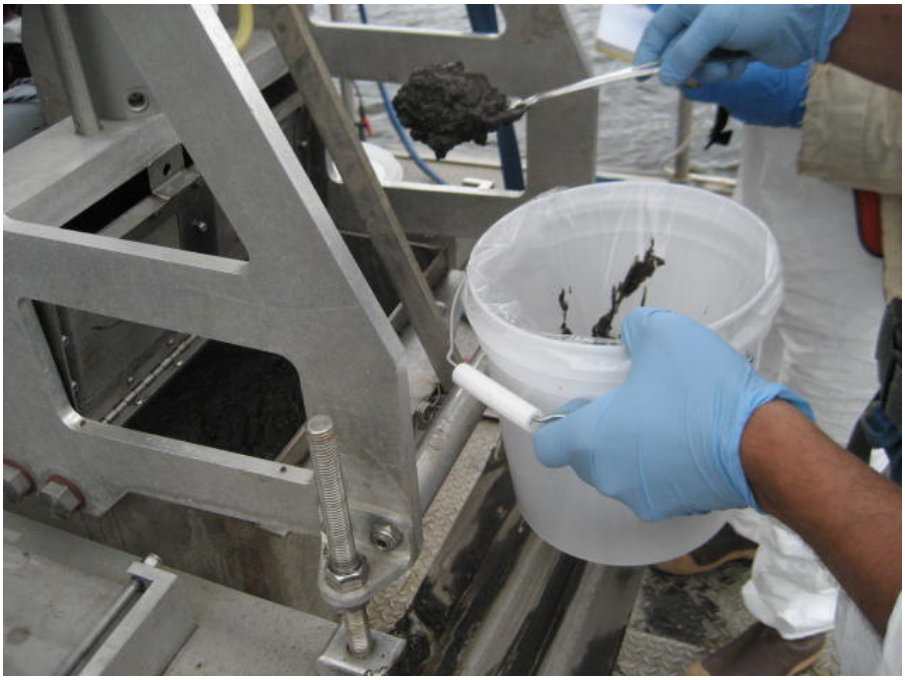

Photo 8 - Collecting sediment out of Powergrab sampler

Photo 9- Collecting water depth

Photo 10 - Collecting equipment blank from grab sampler

Photo 11 - CanDu sampling vessel

Photo 12 – Probing for potential sampling locations in Third River

Photo 13 – Collecting upper-most interval “A” from core in stand

Photo 14 - Sample core opened to perform geologic characterization

Photo 15 - Sample processing

Photo 16 - Homogenizing sample prior to filling sample jars

Attachment 2

Split Sample Summary Table

CDM Smith Split Sample Identification Table
Second Supplemental Sampling Oversight
Lower Passaic River Restoration Project
Lower Passaic River, New Jersey

Sample ID[1]	Location	Core No. / Interval	Depth (ft)	QC Sample	Date Collected	Time Collected	PAHs	Pest	PCB Cong.	PCDD/ PCDF	SVOCs	TPH	Met + Ti	Hg	TOC
13B-0564-G2AS-C	13B-0564	G2AS	0 - 0.5		9/24/2013	14:57	X	X	X	X					
13B-0564-G2AS-C	13B-0564	G2AS	0 - 0.5		9/24/2013	14:57					X		X		
13B-0564-G2AS-C	13B-0564	G2AS	0 - 0.5		9/24/2013	14:57						X			
13B-0564-G2AS-C	13B-0564	G2AS	0 - 0.5		9/24/2013	14:57								X	
13B-0564-G2AS-C	13B-0564	G2AS	0 - 0.5		9/24/2013	14:57									X
13B-0547-C2AS-C	13B-0547	C2AS	0 - 0.5		9.23.2013	18:25	X	X	X	X					
13B-0547-C3AS-C	13B-0547	C3AS	0 - 0.5		9/24/2013	08:35					X		X		
13B-0547-G1AS-C	13B-0547	G1AS	0 - 0.5		9/24/2013	09:50						X			
13B-0547-C3AS-C	13B-0547	C3AS	0 - 0.5		9/24/2013	08:35								X	
13B-0547-C3AS-C	13B-0547	C3AS	0 - 0.5		9/24/2013	08:35									X
13B-0530-C1AS-C	13B-0530	C1AS	0 - 0.5		9/25/2013	13:00	X	X	X	X					
13B-0530-C3AS-C	13B-0530	C3AS	0 - 0.5		9/25/2013	13:50					X		X		
13B-0530-C4AS-C	13B-0530	C4AS	0 - 0.5		9/25/2013	14:50						X			
13B-0530-C3AS-C	13B-0530	C3AS	0 - 0.5		9/25/2013	13:50								X	
13B-0530-C4AS-C	13B-0530	C4AS	0 - 0.5		9/25/2013	14:50									X
13B-0530-C1BS-C	13B-0530	C1BS	0.5 - 1.5		9/25/2013	13:00	X	X	X	X					
13B-0530-C3BS-C	13B-0530	C3BS	0.5 - 1.5		9/25/2013	13:50					X		X		
13B-0530-C4BS-C	13B-0530	C4BS	0.5 - 1.5		9/25/2013	14:50						X			
13B-0530-C3BS-C	13B-0530	C3BS	0.5 - 1.5		9/25/2013	13:50								X	
13B-0530-C4BS-C	13B-0530	C4BS	0.5 - 1.5		9/25/2013	14:50									X
13B-0533-C2CS-C	13B-0533	C2CS	1.5 - 2.5		9/26/2013	09:27	X	X	X	X					
13B-0533-C3CS-C	13B-0533	C3CS	1.5 - 2.5		9/26/2013	10:11					X		X		
13B-0533-C3CS-C	13B-0533	C3CS	1.5 - 2.5		9/26/2013	10:11						X			
13B-0533-C2CS-C	13B-0533	C2CS	1.5 - 2.5		9/26/2013	09:27								X	
13B-0533-C3CS-C	13B-0533	C3CS	1.5 - 2.5		9/26/2013	10:11									X
13B-0533-C2BS-C	13B-0533	C2BS	0.5 - 1.5		9/26/2013	09:27	X	X	X	X					
13B-0533-C3BS-C	13B-0533	C3BS	0.5 - 1.5		9/26/2013	10:11					X		X		
13B-0533-C3BS-C	13B-0533	C3BS	0.5 - 1.5		9/26/2013	10:11						X			
13B-0533-C2BS-C	13B-0533	C2BS	0.5 - 1.5		9/26/2013	09:27								X	
13B-0533-C3BS-C	13B-0533	C3BS	0.5 - 1.5		9/26/2013	10:11									X

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Sample ID[1]	Location	Core No. / Interval	Depth (ft)	QC Sample	Date Collected	Time Collected	PAHs	Pest	PCB Cong.	PCDD/ PCDF	SVOCs	TPH	Met + Ti	Hg	TOC
13B-0560-C1BS-C	13B-0560	C1BS	0.5 - 1.5		9/27/2013	12:35	X	X	X	X					
13B-0560-C3BS-C	13B-0560	C3BS	0.5 - 1.5		9/27/2013	14:00					X		X		
13B-0560-C3BS-C	13B-0560	C3BS	0.5 - 1.5		9/27/2013	14:00						X			
13B-0560-C1BS-C	13B-0560	C1BS	0.5 - 1.5		9/27/2013	12:35								X	
13B-0560-C3BS-C	13B-0560	C3BS	0.5 - 1.5		9/27/2013	14:00									X
13B-0560-C1CS-C	13B-0560	C1CS	1.5 - 2.5		9/27/2013	12:35	X	X	X	X					
13B-0560-C3CS-C	13B-0560	C3CS	1.5 - 2.5		9/27/2013	14:00					X		X		
13B-0560-C3CS-C	13B-0560	C3CS	1.5 - 2.5		9/27/2013	14:00						X			
13B-0560-C1CS-C	13B-0560	C1CS	1.5 - 2.5		9/27/2013	12:35								X	
13B-0560-C3CS-C	13B-0560	C3CS	1.5 - 2.5		9/27/2013	14:00									X
13B-0559-C3CS-C	13B-0559	C3CS	1.5 - 2.5		9/30/2013	13:08	X	X	X	X					
13B-0559-C2CS-C	13B-0559	C2CS	1.5 - 2.5		9/30/2013	12:00					X		X		
13B-0559-C2CS-C	13B-0559	C2CS	1.5 - 2.5		9/30/2013	12:00						X			
13B-0559-C3CS-C	13B-0559	C3CS	1.5 - 2.5		9/30/2013	13:08								X	
13B-0559-C2CS-C	13B-0559	C2CS	1.5 - 2.5		9/30/2013	12:00									X
13B-0559-C3AS-C	13B-0559	C3AS	0 - 0.5		9/30/2013	13:08	X	X	X	X					
13B-0559-C2AS-C	13B-0559	C2AS	0 - 0.5		9/30/2013	12:00					X		X		
13B-0559-C2AS-C	13B-0559	C2AS	0 - 0.5		9/30/2013	12:00						X			
13B-0559-C2AS-C	13B-0559	C2AS	0 - 0.5		9/30/2013	12:00								X	
13B-0559-C2AS-C	13B-0559	C2AS	0 - 0.5		9/30/2013	12:00									X
13B-0503-C1AS-C	13B-0503	C1AS	0 - 0.5		9/30/2013	08:54	X	X	X	X					
13B-0503-C2AS-C	13B-0503	C2AS	0 - 0.5		9/30/2013	09:32					X		X		
13B-0503-C2AS-C	13B-0503	C2AS	0 - 0.5		9/30/2013	09:32						X			
13B-0503-C1AS-C	13B-0503	C1AS	0 - 0.5		9/30/2013	08:54								X	
13B-0503-C2AS-C	13B-0503	C2AS	0 - 0.5		9/30/2013	09:32									X
13B-0501-C1BS-C	13B-0501	C1BS	0.5 - 1.5		10/1/2013	10:53	X	X	X	X					
13B-0501-C1BS-C	13B-0501	C1BS	0.5 - 1.5		10/1/2013	10:53					X		X		
13B-0501-C2BS-C	13B-0501	C2BS	0.5 - 1.5		10/1/2013	11:34						X			
13B-0501-C1BS-C	13B-0501	C1BS	0.5 - 1.5		10/1/2013	10:53								X	
13B-0501-C1BS-C	13B-0501	C1BS	0.5 - 1.5		10/1/2013	10:53									X

CDM Smith Split Sample Identification Table
Second Supplemental Sampling Oversight
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Sample ID[1]	Location	Core No. / Interval	Depth (ft)	QC Sample	Date Collected	Time Collected	PAHs	Pest	PCB Cong.	PCDD/ PCDF	SVOCs	TPH	Met + Ti	Hg	TOC
13B-0501-C1CS-C	13B-0501	C1CS	1.5 - 2.5		10/1/2013	10:53	X	X	X	X					
13B-0501-C1CS-C	13B-0501	C1CS	1.5 - 2.5		10/1/2013	10:53					X		X		
13B-0501-C2CS-C	13B-0501	C2CS	1.5 - 2.5		10/1/2013	11:34						X			
13B-0501-C1CS-C	13B-0501	C1CS	1.5 - 2.5		10/1/2013	10:53								X	
13B-0501-C1CS-C	13B-0501	C1CS	1.5 - 2.5		10/1/2013	10:53									X
13B-0574-C2AS-C	13B-0574	C2AS	0 - 0.5		10/2/2013	09:05	X	X	X	X					
13B-0574-C3AS-C	13B-0574	C3AS	0 - 0.5		10/2/2013	10:00					X		X		
13B-0574-C1AS-C	13B-0574	C1AS	0 - 0.5		10/2/2013	08:25						X			
13B-0574-C1AS-C	13B-0574	C1AS	0 - 0.5		10/2/2013	08:25								X	
13B-0574-C3AS-C	13B-0574	C3AS	0 - 0.5		10/2/2013	10:00									X
13B-0574-C2AT-C	13B-0574	C2AT	0 - 0.5	Dup	10/2/2013	09:05	X	X	X	X					
13B-0574-C3AT-C	13B-0574	C3AT	0 - 0.5	Dup	10/2/2013	10:00					X		X		
13B-0574-C1AT-C	13B-0574	C1AT	0 - 0.5	Dup	10/2/2013	08:25						X			
13B-0574-C1AT-C	13B-0574	C1AT	0 - 0.5	Dup	10/2/2013	08:25								X	
13B-0574-C3AT-C	13B-0574	C3AT	0 - 0.5	Dup	10/2/2013	10:00									X
13B-0574-C2CS-C	13B-0574	C2CS	1.5 - 2.5	MS/MSD	10/2/2013	09:05	X	X	X	X					
13B-0574-C1CS-C	13B-0574	C1CS	1.5 - 2.5	MS/MSD	10/2/2013	08:25					X		X		
13B-0574-C1CS-C	13B-0574	C1CS	1.5 - 2.5	MS/MSD	10/2/2013	08:25						X			
13B-0574-C2CS-C	13B-0574	C2CS	1.5 - 2.5	MS/MSD	10/2/2013	09:05								X	
13B-0574-C1CS-C	13B-0574	C1CS	1.5 - 2.5	MS/MSD (except for TOC)	10/2/2013	08:25									X
13B-0571-C3BS-C	13B-0571	C3BS	0.5 - 1.5		10/4/2013	08:30	X	X	X	X					
13B-0571-C4BS-C	13B-0571	C4BS	0.5 - 1.5		10/4/2013	10:00					X		X		
13B-0571-C3BS-C	13B-0571	C3BS	0.5 - 1.5		10/4/2013	08:30						X			
13B-0571-C3BS-C	13B-0571	C3BS	0.5 - 1.5		10/4/2013	08:30								X	
13B-0571-C4BS-C	13B-0571	C4BS	0.5 - 1.5		10/4/2013	10:00									X
13B-0567-G2AS-C	13B-0567	G2AS	0 - 0.5		10/4/2013	08:14	X	X	X	X					
13B-0567-G2AS-C	13B-0567	G2AS	0 - 0.5		10/4/2013	08:14					X		X		
13B-0567-G2AS-C	13B-0567	G2AS	0 - 0.5		10/4/2013	08:14						X			
13B-0567-G2AS-C	13B-0567	G2AS	0 - 0.5		10/4/2013	08:14								X	
13B-0567-G2AS-C	13B-0567	G2AS	0 - 0.5		10/4/2013	08:14									X

CDM Smith Split Sample Identification Table
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Lower Passaic River Restoration Project
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Sample ID[1]	Location	Core No. / Interval	Depth (ft)	QC Sample	Date Collected	Time Collected	PAHs	Pest	PCB Cong.	PCDD/ PCDF	SVOCs	TPH	Met + Ti	Hg	TOC
13B-0571-C3CS-C	13B-0571	C3CS	1.5 - 2.5		10/4/2013	08:50	X	X	X	X					
13B-0571-C3CS-C	13B-0571	C3CS	1.5 - 2.5		10/4/2013	08:50					X		X		
13B-0571-C4CS-C	13B-0571	C4CS	1.5 - 2.5		10/4/2013	10:00						X			
13B-0571-C3CS-C	13B-0571	C3CS	1.5 - 2.5		10/4/2013	08:50								X	
13B-0571-C3CS-C	13B-0571	C3CS	1.5 - 2.5		10/4/2013	08:50									X
13B-0556-C2AS-C	13B-0556	C2AS	0 - 0.5		10/7/2013	09:12	X	X	X	X					
13B-0556-C3AS-C	13B-0556	C3AS	0 - 0.5		10/7/2013	09:45					X		X		
13B-0556-C1AS-C	13B-0556	C1AS	0 - 0.5		10/7/2013	08:42						X			
13B-0556-C1AS-C	13B-0556	C1AS	0 - 0.5		10/7/2013	08:42								X	
13B-0556-C3AS-C	13B-0556	C3AS	0 - 0.5		10/7/2013	09:45									X
13B-0511-C3BS-C	13B-0511	C3BS	0.5 - 1.5		10/8/2013	10:15	X	X	X	X					
13B-0511-C1BS-C	13B-0511	C1BS	0.5 - 1.5		10/8/2013	09:08					X		X		
13B-0511-C1BS-C	13B-0511	C1BS	0.5 - 1.5		10/8/2013	09:08						X			
13B-0511-C3BS-C	13B-0511	C3BS	0.5 - 1.5		10/8/2013	10:15								X	
13B-0511-C1BS-C	13B-0511	C1BS	0.5 - 1.5		10/8/2013	09:08									X
13B-0527-C2AS-C	13B-0527	C2AS	0 - 0.5	MS/MSD	10/8/2013	12:06	X	X	X	X					
13B-0527-C1AS-C	13B-0527	C1AS	0 - 0.5	MS/MSD	10/8/2013	11:38					X		X		
13B-0527-C3AS-C	13B-0527	C3AS	0 - 0.5	MS/MSD	10/8/2013	12:33						X			
13B-0527-C3AS-C	13B-0527	C3AS	0 - 0.5	MS/MSD	10/8/2013	12:33								X	
13B-0527-C1AS-C	13B-0527	C1AS	0 - 0.5	MS/MSD (except for TOC)	10/8/2013	11:38									X
13B-0527-C2CS-C	13B-0527	C2CS	1.5 - 2.5		10/8/2013	12:06	X	X	X	X					
13B-0527-C3CS-C	13B-0527	C3CS	1.5 - 2.5		10/8/2013	12:33					X		X		
13B-0527-C2CS-C	13B-0527	C2CS	1.5 - 2.5		10/8/2013	12:06						X			
13B-0527-C2CS-C	13B-0527	C2CS	1.5 - 2.5		10/8/2013	12:06								X	
13B-0527-C3CS-C	13B-0527	C3CS	1.5 - 2.5		10/8/2013	12:33									X
13B-0527-C2CT-C	13B-0527	C2CT	1.5 - 2.5	Dup	10/8/2013	12:06	X	X	X	X					
13B-0527-C3CT-C	13B-0527	C3CT	1.5 - 2.5	Dup	10/8/2013	12:33					X		X		
13B-0527-C2CT-C	13B-0527	C2CT	1.5 - 2.5	Dup	10/8/2013	12:06						X			
13B-0527-C2CT-C	13B-0527	C2CT	1.5 - 2.5	Dup	10/8/2013	12:06								X	
13B-0527-C3CT-C	13B-0527	C3CT	1.5 - 2.5	Dup	10/8/2013	12:33									X

CDM Smith Split Sample Identification Table
Second Supplemental Sampling Oversight
Lower Passaic River Restoration Project
Lower Passaic River, New Jersey

Sample ID[1]	Location	Core No. / Interval	Depth (ft)	QC Sample	Date Collected	Time Collected	PAHs	Pest	PCB Cong.	PCDD/ PCDF	SVOCs	TPH	Met + Ti	Hg	TOC
13B-0521-C2CS-C	13B-0521	C2CS	1.5 - 2.5		10/9/2103	9:15	X	X	X	X					
13B-0521-C3CS-C	13B-0521	C3CS	1.5 - 2.5		10/9/2103	9:51					X		X		
13B-0521-C2CS-C	13B-0521	C2CS	1.5 - 2.5		10/9/2103	9:15						X			
13B-0521-C2CS-C	13B-0521	C2CS	1.5 - 2.5		10/9/2103	9:15								X	
13B-0521-C3CS-C	13B-0521	C3CS	1.5 - 2.5		10/9/2103	9:51									X
13B-0521-C2AS-C	13B-0521	C2AS	0 - 0.5		10/9/2103	09:15	X	X	X	X					
13B-0521-C3AS-C	13B-0521	C3AS	0 - 0.5		10/9/2103	09:51					X		X		
13B-0521-C3AS-C	13B-0521	C3AS	0 - 0.5		10/9/2103	09:51						X			
13B-0521-C2AS-C	13B-0521	C2AS	0 - 0.5		10/9/2103	09:15								X	
13B-0521-C3AS-C	13B-0521	C3AS	0 - 0.5		10/9/2103	09:51									X
13B-0531-C2CS-C	13B-0531	C2CS	1.5 - 2.5		10/14/2013	9:21	X	X	X	X					
13B-0531-C1CS-C	13B-0531	C1CS	1.5 - 2.5		10/14/2013	8:48					X		X		
13B-0531-C2CS-C	13B-0531	C2CS	1.5 - 2.5		10/14/2013	9:21						X			
13B-0531-C2CS-C	13B-0531	C2CS	1.5 - 2.5		10/14/2013	9:21								X	
13B-0531-C1CS-C	13B-0531	C1CS	1.5 - 2.5		10/14/2013	8:48									X

Note:
1. CDM Smith sample IDs (listed in this table) are the same as AECOM sample IDs followed by "-C" at the end.

Acronyms:
Dup - duplicate
ft - feet
Hg - mercury
ID - identification
Met - metals
MS/MSD - matrix spike/matrix spike duplicate
No. - Number
PAHs - polycyclic aromatic hydrocarbons
PCB Cong. - polychlorinated biphenyl congeners
PCDD - polychlorinated dibenzodioxins
PCDF - polychlorinated dibenzofurans
Pest - pesticides
QC - quality control
SVOCs - semi-volatile organic compounds
Ti - titanium
TOC - total organic carbon
TPH - total petroleum hydrocarbons

Attachment 3

Chain of Custodies

USEPA CLP Generic COC (REGION COPY)

DateShipped: 9/26/2013
CarrierName: FedEx
AirbillNo: 796767429255

CHAIN OF CUSTODY RECORD

Passaic River
Project Code:
Cooler #: 1

No: 2-092613-173742-0001

Lab: AXYS Analytical Services
Lab Contact:
Lab Phone: 250-655-5800

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Sample Type
13B--0530-C1AS-C	Sediment/ Sean O'Hare	Discrete Interval	P/P/P/P/P(35)	A (4 C) (1)	13B-0530-C1	09/25/2013 13:00	Field Sample
13B-0530-C1BS-C	Sediment/ Sean O'Hare	Discrete Interval	P/P/P/P/P(35)	A (4 C) (1)	13B-0530-C1	09/25/2013 13:00	Field Sample
13B-0547-C2AS-C	Sediment/ Sean O'Hare	Discrete Interval	P/P/P/P/P(35)	A (4 C) (1)	13B-0547-C2	09/23/2013 18:25	Field Sample
13B-0564-G2AS-C	Sediment/ Sean O'Hare	Discrete Interval	P/P/P/P/P(35)	A (4 C) (1)	13B-0564-G	09/24/2013 14:57	Field Sample

Special Instructions: Ignore tag #'s

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: P/P/P/P/P=PAH/PEST/PCB/PCDD/PCDF

Items/Reason	Relinquished by	Date	Received by	Date	Time		Items/Reason	Relinquished By	Date	Received by	Date	Time

USEPA CLP Generic COC (REGION COPY)

DateShipped: 10/1/2013
CarrierName: FedEx
AirbillNo: 796802344567

CHAIN OF CUSTODY RECORD

Passaic River
Project Code:
Cooler #: 1

No: 2-100113-110606-0006

Lab: AXYS Analytical Services
Lab Contact:
Lab Phone: 250-655-5800

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	Sample Type
13B-0533-C2BS-C		Sediment/ Sean O'Hare	Discrete Interval	P/P/P/P/P(35)	B (4 C) (1)	13B-0533-C2	09/26/2013 09:27	Field Sample
13B-0533-C2CS-C		Sediment/ Sean O'Hare	Discrete Interval	P/P/P/P/P(35)	A (4 C) (1)	13B-0533-C2	09/26/2013 09:27	Field Sample
13B-0560-C1BS-C		Sediment/ Sean O'Hare	Discrete Interval	P/P/P/P/P(35)	A (4 C) (1)	13B-0560-C1BS	09/27/2013 12:35	Field Sample
13B-0560-C1CS-C		Sediment/ Sean O'Hare	Discrete Interval	P/P/P/P/P(35)	A (4 C) (1)	13B-0560-C1CS	09/27/2013 12:35	Field Sample

Special Instructions: Ignore tag #'s

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: P/P/P/P/P=PAH/PEST/PCB/PCDD/PCDF

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt

USEPA

DateShipped: 10/3/2013
CarrierName: FedEx
AirbillNo: 796830183915

CHAIN OF CUSTODY RECORD

Passaic River
Contact Name: Scott Kirchner
Contact Phone: 732-590-4677

No: 2-100313-120627-0012

Cooler #: 1
Lab: AXYS Analytical Services
Lab Phone: 250-655-5800

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	13B-0501-C1CS-C	13B-0501-C1CS	PAH/PEST/PCB/PCDD/PCDF	Sediment	10/1/2013	10:53	1	8 oz glass jar	4 C	
	13B-0503-C1AS-C	13B-0503-C1AS	PAH/PEST/PCB/PCDD/PCDF	Sediment	9/30/2013	08:54	1	8 oz glass jar	4 C	
	13B-0559-C3AS-C	13B-0559-C3AS	PAH/PEST/PCB/PCDD/PCDF	Sediment	9/30/2013	13:08	1	8 oz glass jar	4 C	
	13B-0559-C3CS-C	13B-0559-C3CS	PAH/PEST/PCB/PCDD/PCDF	Sediment	9/30/2013	13:08	1	8 oz glass jar	4 C	
	13B-0501-C1BS-C	13B-0501-C1BS	PAH/PEST/PCB/PCDD/PCDF	Sediment	10/1/2013	10:53	1	8 oz glass jar	4 C	

Special Instructions: Ignore tag #'s

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt

USEPA
DateShipped: 10/8/2013
CarrierName: FedEx
AirbillNo: 796861390988

CHAIN OF CUSTODY RECORD
Passaic River
Contact Name: Scott Kirchner
Contact Phone: 732-590-4677

No: 2-100813-114040-0015
Cooler #: 1
Lab: AXYS Analytical Services
Lab Phone: 250-655-5800

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	13B-0567-G2AS-C	13B-0567-G2AS	PAH/PEST/PCB/PCDD/PCDF	Sediment	10/4/2013	08:14	1	8 oz glass jar	4 C	
	13B-0571-C3BS-C	13B-0571-C3BS	PAH/PEST/PCB/PCDD/PCDF	Sediment	10/4/2013	08:30	1	8 oz glass jar	4 C	
	13B-0571-C3CS-C	13B-0571-C3CS	PAH/PEST/PCB/PCDD/PCDF	Sediment	10/4/2013	08:50	1	8 oz glass jar	4 C	
	13B-0574-C2AS-C	13B-0574-C2AS	PAH/PEST/PCB/PCDD/PCDF	Sediment	10/2/2013	09:05	1	8 oz glass jar	4 C	
	13B-0574-C2AT-C	13B-0574-C2AS	PAH/PEST/PCB/PCDD/PCDF	Sediment	10/2/2013	09:05	1	8 oz glass jar	4 C	
	13B-0574-C2CS-C	13B-0574-C2CS	PAH/PEST/PCB/PCDD/PCDF	Sediment	10/2/2013	09:05	2	8 oz glass jar	4 C	Y

Special Instructions: Ignore tag #'s

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt

USEPA
DateShipped: 10/10/2013
CarrierName: FedEx
AirbillNo: 796871558742

CHAIN OF CUSTODY RECORD
Passaic River
Contact Name: Scott Kirchner
Contact Phone: 732-590-4677

No: 2-100913-113357-0017
Cooler #: 1
Lab: AXYS Analytical Services
Lab Phone: 250-655-5800

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	13B-0521-C2AS-C	13B-0521-C2AS	PAH/PEST/PCB/PCDD/PCDF	Sediment	10/9/2013	09:15	1	8 oz glass jar	4 C	
	13B-0521-C2CS-C	13B-0521-C2CS	PAH/PEST/PCB/PCDD/PCDF	Sediment	10/9/2013	09:15	1	8 oz glass jar	4 C	
	13B-0511-C3BS-C	13B-0511-C3BS	PAH/PEST/PCB/PCDD/PCDF	Sediment	10/8/2013	10:15	1	8 oz glass jar	4 C	
	13B-0527-C2AS-C	13B-0527-C2AS	PAH/PEST/PCB/PCDD/PCDF	Sediment	10/8/2013	12:06	2	8 oz glass jar	4 C	Y
	13B-0527-C2CS-C	13B-0527-C2CS	PAH/PEST/PCB/PCDD/PCDF	Sediment	10/8/2013	12:06	1	8 oz glass jar	4 C	
	13B-0527-C2CT-C	13B-0527-C2CT	PAH/PEST/PCB/PCDD/PCDF	Sediment	10/8/2013	12:06	1	8 oz glass jar	4 C	
	13B-0556-C2AS-C	13B-0556-C2AS	PAH/PEST/PCB/PCDD/PCDF	Sediment	10/7/2013	09:12	1	8 oz glass jar	4 C	

Special Instructions: Ignore tag #'s

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt

USEPA

DateShipped: 10/16/2013
CarrierName: FedEx
AirbillNo: 796923886373

CHAIN OF CUSTODY RECORD

Passaic River
Contact Name: Scott Kirchner
Contact Phone: 732-590-4677

No: 2-101613-115404-0025

Cooler #: 1
Lab: AXYS Analytical Services
Lab Phone: 250-655-5800

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	13B-0531-C2CS-C	13B-0531-C2CS	PAH/PEST/PCB/PCDD/PCDF	Sediment	10/14/2013	09:21	1	8 oz glass jar	4 C	

Special Instructions: Ignore tag #'s

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt

USEPA CLP Generic COC (REGION COPY) | **CHAIN OF CUSTODY RECORD** | **No: 2-092613-180440-0001**

DateShipped: 9/26/2013 | Passaic River | Lab: DESA Laboratory

CarrierName: Hand delivered | Project Code: | Lab Contact: John Birrir

AirbillNo: | Cooler #: 1 | Lab Phone:

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Sample Type
13B-0530-C4AS-C	Sediment/ Sean O'Hare	Discrete Interval	TOC(21)	E (4 C) (1)	13B-0530-C4	09/25/2013 14:50	Field Sample
13B-0530-C4BS-C	Sediment/ Sean O'Hare	Discrete Interval	TOC(21)	E (4 C) (1)	13B-0530-C4	09/25/2013 14:50	Field Sample
13B-0547-C3AS-C	Sediment/ Sean O'Hare	Discrete Interval	TOC(21)	E (4 C) (1)	13B-0547-C3	09/24/2013 08:35	Field Sample
13B-0564-G2AS-C	Sediment/ Sean O'Hare	Discrete Interval	TOC(21)	E (4 C) (1)	13B-0564-G	09/24/2013 14:57	Field Sample

Special Instructions: Ignjore tag #'s

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: TOC=Total Organic Carbon - DESA

Items/Reason	Relinquished by	Date	Received by	Date	Time		Items/Reason	Relinquished By	Date	Received by	Date	Time

USEPA CLP Generic COC (REGION COPY)

CHAIN OF CUSTODY RECORD

No: 2-092613-180002-0001

DateShipped: 9/26/2013
CarrierName: FedEx
AirbillNo: 796767517380

Passaic River
Project Code:
Cooler #: 1

Lab: Microbac Laboratories
Lab Contact:
Lab Phone: 219-769-8378

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Sample Type
13B-0530-C3AS-C	Sediment/ Sean O'Hare	Discrete Interval	Hg	D (4 C) (1)	13B-0530-C3	09/25/2013 13:50	Field Sample
13B-0530-C3BS-C	Sediment/ Sean O'Hare	Discrete Interval	Hg	D (4 C) (1)	13B-0530-C3	09/25/2013 13:50	Field Sample
13B-0547-C3AS-C	Sediment/ Sean O'Hare	Discrete Interval	Hg	D (4 C) (1)	13B-0547-C3	09/24/2013 08:35	Field Sample
13B-0564-G2AS-C	Sediment/ Sean O'Hare	Discrete Interval	Hg	D (4 C) (1)	13B-0564-G	09/24/2013 14:57	Field Sample

Special Instructions: Ignore tag #'s

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: Hg=Mercury

Items/Reason	Relinquished by	Date	Received by	Date	Time		Items/Reason	Relinquished By	Date	Received by	Date	Time

USEPA CLP Generic COC (REGION COPY)

CHAIN OF CUSTODY RECORD

No: 2-100113-110137-0005

DateShipped: 10/1/2013
CarrierName: FedEx
AirbillNo: 2796802657543

Passaic River
Project Code:
Cooler #: 1

Lab: Microbac Laboratories
Lab Contact:
Lab Phone: 219-769-8378

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	Sample Type
13B-0533-C2BS-C		Sediment/ Sean O'Hare	Discrete Interval	Hg	A (4 C) (1)	13B-0533-C2	09/26/2013 09:27	Field Sample
13B-0533-C2CS-C		Sediment/ Sean O'Hare	Discrete Interval	Hg	B (4 C) (1)	13B-0533-C2	09/26/2013 09:27	Field Sample
13B-0560-C1BS-C		Sediment/ Sean O'Hare	Discrete Interval	Hg	B (4 C) (1)	13B-0560-C1BS	09/27/2013 12:35	Field Sample
13B-0560-C1CS-C		Sediment/ Sean O'Hare	Discrete Interval	Hg	B (4 C) (1)	13B-0560-C1CS	09/27/2013 12:35	Field Sample

Special Instructions: Ignore tag #'s

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: Hg=Mercury

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt

USEPA

DateShipped: 10/3/2013
CarrierName: FedEx
AirbillNo: 796830015378

CHAIN OF CUSTODY RECORD

Passaic River
Contact Name: Scott Kirchner
Contact Phone: 732-590-4677

No: 2-100313-115458-0011

Cooler #: 1
Lab: Microbac Laboratories
Lab Phone: 219-769-8378

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	13B-0501-C1BS-C	13B-0501-C1BS	Mercury	Sediment	10/1/2013	10:53	1	8 oz glass jar	4 C	
	13B-0501-C1CS-C	13B-0501-C1CS	Mercury	Sediment	10/1/2013	10:53	1	8 oz glass jar	4 C	
	13B-0503-C1AS-C	13B-0503-C1AS	Mercury	Sediment	9/30/2013	08:54	1	8 oz glass jar	4 C	
	13B-0559-C2AS-C	13B-0559-C2AS	Mercury	Sediment	9/30/2013	12:00	1	8 oz glass jar	4 C	
	13B-0559-C3CS-C	13B-0559-C3CS	Mercury	Sediment	9/30/2013	13:08	1	8 oz glass jar	4 C	

Special Instructions: Ignore tag #'s	**SAMPLES TRANSFERRED FROM**
	CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt

USEPA

DateShipped: 10/8/2013
CarrierName: FedEx
AirbillNo: 796861247404

CHAIN OF CUSTODY RECORD

Passaic River
Contact Name: Scott Kirchner
Contact Phone: 732-590-4677

No: 2-100813-113010-0014

Cooler #: 1
Lab: Microbac Laboratories
Lab Phone: 219-769-8378

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	13B-0567-G2AS-C	13B-0567-G2AS	Mercury	Sediment	10/4/2013	08:14	1	8 oz glass jar	4 C	
	13B-0571-C3BS-C	13B-0571-C3BS	Mercury	Sediment	10/4/2013	08:30	1	8 oz glass jar	4 C	
	13B-0571-C3CS-C	13B-0571-C3CS	Mercury	Sediment	10/4/2013	08:50	1	8 oz glass jar	4 C	
	13B-0574-C1AS-C	13B-0574-C1AS	Mercury	Sediment	10/2/2013	08:25	1	8 oz glass jar	4 C	
	13B-0574-C1AT-C	13B-0574-C1AS	Mercury	Sediment	10/2/2013	08:25	1	8 oz glass jar	4 C	
	13B-0574-C2CS-C	13B-0574-C2CS	Mercury	Sediment	10/2/2013	09:05	2	8 oz glass jar	4 C	Y

Special Instructions: Ignore tag #'s

SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt

USEPA

DateShipped: 10/10/2013
CarrierName: FedEx
AirbillNo: 796872044576

CHAIN OF CUSTODY RECORD

Passaic River
Contact Name: Scott Kirchner
Contact Phone: 732-590-4677

No: 2-100913-120708-0019

Cooler #: 1
Lab: Microbac Laboratories
Lab Phone: 219-769-8378

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	13B-0521-C2AS-C	13B-0521-C2AS	Mercury	Sediment	10/9/2013	09:15	1	8 oz glass jar	4 C	
	13B-0521-C2CS-C	13B-0521-C2CS	Mercury	Sediment	10/9/2013	09:15	1	8 oz glass jar	4 C	
	13B-0511-C3BS-C	13B-0511-C3BS	Mercury	Sediment	10/8/2013	10:15	1	8 oz glass jar	4 C	
	13B-0527-C2CS-C	13B-0527-C2CS	Mercury	Sediment	10/8/2013	12:06	1	8 oz glass jar	4 C	
	13B-0527-C2CT-C	13B-0527-C2CT	Mercury	Sediment	10/8/2013	12:06	1	8 oz glass jar	4 C	
	13B-0527-C3AS-C	13B-0527-C3AS	Mercury	Sediment	10/8/2013	12:33	2	8 oz glass jar	4 C	Y
	13B-0556-C1AS-C	13B-0556-C1AS	Mercury	Sediment	10/7/2013	08:42	1	8 oz glass jar	4 C	

Special Instructions: Ignore tag #'s

SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt

USEPA

DateShipped: 10/16/2013
CarrierName: FedEx
AirbillNo: 796924084180

CHAIN OF CUSTODY RECORD

Passaic River
Contact Name: Scott Kirchner
Contact Phone: 732-590-4677

No: 2-101613-120340-0027

Cooler #: 1
Lab: Microbac Laboratories
Lab Phone: 219-769-8378

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	13B-0531-C2CS-C	13B-0531-C2CS	Mercury	Sediment	10/14/2013	09:21	1	8 oz glass jar	4 C	

Special Instructions: Ignore tag #'s

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt

USEPA CLP Generic COC (REGION COPY)

DateShipped: 9/26/2013
CarrierName: FedEx
AirbillNo: 796767570277

CHAIN OF CUSTODY RECORD

Passaic River
Project Code:
Cooler #: 1

No: 2-092613-175408-0001

Lab: Shealy Environmental
Lab Contact:
Lab Phone: 803-791-9700

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Sample Type
13B-0530-C3AS-C	Sediment/ Sean O'Hare	Discrete Interval	Met/SVOC(21)	B (4 C) (1)	13B-0530-C3	09/25/2013 13:50	Field Sample
13B-0530-C3BS-C	Sediment/ Sean O'Hare	Discrete Interval	Met/SVOC(21)	B (4 C) (1)	13B-0530-C3	09/25/2013 13:50	Field Sample
13B-0530-C4AS-C	Sediment/ Sean O'Hare	Discrete Interval	TPH(21)	C (4 C) (1)	13B-0530-C4	09/25/2013 14:50	Field Sample
13B-0530-C4BS-C	Sediment/ Sean O'Hare	Discrete Interval	TPH(21)	C (4 C) (1)	13B-0530-C4	09/25/2013 14:50	Field Sample
13B-0547-C3AS-C	Sediment/ Sean O'Hare	Discrete Interval	Met/SVOC(21)	B (4 C) (1)	13B-0547-C3	09/24/2013 08:35	Field Sample
13B-0547-G1AS-C	Sediment/ Sean O'Hare	Discrete Interval	TPH(21)	C (4 C) (1)	13B-0547-G	09/24/2013 09:50	Field Sample
13B-0564-G2AS-C	Sediment/ Sean O'Hare	Discrete Interval	Met/SVOC(21), TPH(21)	B (4 C), C (4 C) (2)	13B-0564-G	09/24/2013 14:57	Field Sample

Special Instructions: Ignore tag #'s

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: Met/SVOC=Metals + Ti, SVOC, TPH=TPH Extracatables

Items/Reason	Relinquished by	Date	Received by	Date	Time		Items/Reason	Relinquished By	Date	Received by	Date	Time

USEPA CLP Generic COC (REGION COPY)

DateShipped: 10/1/2013
CarrierName: FedEx
AirbillNo: 796803696570

CHAIN OF CUSTODY RECORD

Passaic River
Project Code:
Cooler #: 1

No: 2-100113-110929-0007

Lab: Shealy Environmental
Lab Contact:
Lab Phone: 803-791-9700

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	Sample Type
13B-0533-C3BS-C		Sediment/ Sean O'Hare	Discrete Interval	Met/SVOC(21), TPH(21)	A (4 C), B (4 C) (2)	13B-0533-C2	09/26/2013 10:11	Field Sample
13B-0533-C3CS-C		Sediment/ Sean O'Hare	Discrete Interval	Met/SVOC(21), TPH(21)	A (4 C), C (4 C) (2)	13B-0533-C3	09/26/2013 10:11	Field Sample
13B-0560-C3BS-C		Sediment/ Sean O'Hare	Discrete Interval	Met/SVOC(21), TPH(21)	A (4 C), B (4 C) (2)	13B-0560-C3BS	09/27/2013 14:00	Field Sample
13B-0560-C3CS-C		Sediment/ Sean O'Hare	Discrete Interval	Met/SVOC(21), TPH(21)	A (4 C), B (4 C) (2)	13B-0560-C3CS	09/27/2013 14:00	Field Sample

Special Instructions: Ignore tag #'s

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: Met/SVOC=Metals + Ti, SVOC, TPH=TPH Extracatables

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt

USEPA
DateShipped: 10/3/2013
CarrierName: FedEx
AirbillNo: 796829854270

CHAIN OF CUSTODY RECORD
Passaic River
Contact Name: Scott Kirchner
Contact Phone: 732-590-4677

No: 2-100313-114351-0010
Cooler #: 1
Lab: Shealy Environmental
Lab Phone: 803-791-9700

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	13B-0501-C1BS-C	13B-0501-C1BS	Metals + Ti, SVOC	Sediment	10/1/2013	10:53	1	4 oz glass jar	4 C	
	13B-0501-C1CS-C	13B-0501-C1CS	Metals + Ti, SVOC	Sediment	10/1/2013	10:53	1	4 oz glass jar	4 C	
	13B-0501-C2BS-C	13B-0501-C2BS	TPH Extracatables	Sediment	10/1/2013	11:34	1	4 oz glass jar	4 C	
	13B-0501-C2CS-C	13B-0501-C2CS	TPH Extracatables	Sediment	10/1/2013	11:34	1	4 oz glass jar	4 C	
	13B-0503-C2AS-C	13B-0503-C2AS	Metals + Ti, SVOC	Sediment	9/30/2013	09:32	1	4 oz glass jar	4 C	
	13B-0503-C2AS-C	13B-0503-C2AS	TPH Extracatables	Sediment	9/30/2013	09:32	1	4 oz glass jar	4 C	
	13B-0559-C2AS-C	13B-0559-C2AS	Metals + Ti, SVOC	Sediment	9/30/2013	12:00	1	4 oz glass jar	4 C	
	13B-0559-C2AS-C	13B-0559-C2AS	TPH Extracatables	Sediment	9/30/2013	12:00	1	4 oz glass jar	4 C	
	13B-0559-C2CS-C	13B-0559-C2CS	Metals + Ti, SVOC	Sediment	9/30/2013	12:00	1	4 oz glass jar	4 C	

Special Instructions: Ignore tag #'s

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt

USEPA
DateShipped: 10/3/2013
CarrierName: FedEx
AirbillNo: 796829854270

CHAIN OF CUSTODY RECORD
Passaic River
Contact Name: Scott Kirchner
Contact Phone: 732-590-4677

No: 2-100313-114351-0010
Cooler #: 1
Lab: Shealy Environmental
Lab Phone: 803-791-9700

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	13B-0559-C2CS-C	13B-0559-C2CS	TPH Extracatables	Sediment	9/30/2013	12:00	1	4 oz glass jar	4 C	

Special Instructions: Ignore tag #'s

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt

USEPA
DateShipped: 10/8/2013
CarrierName: FedEx
AirbillNo: 796861454798

CHAIN OF CUSTODY RECORD
Passaic River
Contact Name: Scott Kirchner
Contact Phone: 732-590-4677

No: 2-100813-114337-0016
Cooler #: 1
Lab: Shealy Environmental
Lab Phone: 803-791-9700

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	13B-0567-G2AS-C	13B-0567-G2AS	Metals + Ti, SVOC	Sediment	10/4/2013	08:14	1	4 oz glass jar	4 C	
	13B-0571-C3CS-C	13B-0571-C3CS	Metals + Ti, SVOC	Sediment	10/4/2013	08:50	1	4 oz glass jar	4 C	
	13B-0571-C4BS-C	13B-0571-C4BS	Metals + Ti, SVOC	Sediment	10/4/2013	10:00	1	4 oz glass jar	4 C	
	13B-0574-C1CS-C	13B-0574-C1CS	Metals + Ti, SVOC	Sediment	10/2/2013	08:25	2	4 oz glass jar	4 C	Y
	13B-0574-C3AS-C	13B-0574-C3AS	Metals + Ti, SVOC	Sediment	10/2/2013	10:00	1	4 oz glass jar	4 C	
	13B-0574-C3AT-C	13B-0574-C3AS	Metals + Ti, SVOC	Sediment	10/2/2013	10:00	1	4 oz glass jar	4 C	
	13B-0567-G2AS-C	13B-0567-G2AS	TPH Extracatables	Sediment	10/4/2013	08:14	1	4 oz glass jar	4 C	
	13B-0571-C3BS-C	13B-0571-C3BS	TPH Extracatables	Sediment	10/4/2013	08:30	1	4 oz glass jar	4 C	
	13B-0571-C4CS-C	13B-0571-C4CS	TPH Extracatables	Sediment	10/4/2013	10:00	1	4 oz glass jar	4 C	
	13B-0574-C1AS-C	13B-0574-C1AS	TPH Extracatables	Sediment	10/2/2013	08:25	1	4 oz glass jar	4 C	
	13B-0574-C1AT-C	13B-0574-C1AS	TPH Extracatables	Sediment	10/2/2013	08:25	1	4 oz glass jar	4 C	
	13B-0574-C1CS-C	13B-0574-C1CS	TPH Extracatables	Sediment	10/2/2013	08:25	2	4 oz glass jar	4 C	Y

Special Instructions: Ignore tag #'s	**SAMPLES TRANSFERRED FROM**
	CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt

USEPA

DateShipped: 10/10/2013
CarrierName: FedEx
AirbillNo: 796871947080

CHAIN OF CUSTODY RECORD

Passaic River
Contact Name: Scott Kirchner
Contact Phone: 732-590-4677

No: 2-100913-115654-0018

Cooler #: 1
Lab: Shealy Environmental
Lab Phone: 803-791-9700

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	13B-0521-C2CS-C	13B-0521-C2CS	TPH Extracatables	Sediment	10/9/2013	09:15	1	4 oz glass jar	4 C	
	13B-0521-C3AS-C	13B-0521-C3AS	Metals + Ti, SVOC	Sediment	10/9/2013	09:51	1	4 oz glass jar	4 C	
	13B-0521-C3AS-C	13B-0521-C3AS	TPH Extracatables	Sediment	10/9/2013	09:51	1	4 oz glass jar	4 C	
	13B-0521-C3CS-C	13B-0521-C3CS	Metals + Ti, SVOC	Sediment	10/9/2013	09:51	1	4 oz glass jar	4 C	
	13B-0511-C1BS-C	13B-0511-C1BS	Metals + Ti, SVOC	Sediment	10/8/2013	09:08	1	4 oz glass jar	4 C	
	13B-0511-C1BS-C	13B-0511-C1BS	TPH Extracatables	Sediment	10/8/2013	09:08	1	4 oz glass jar	4 C	
	13B-0527-C1AS-C	13B-0527-C1AS	Metals + Ti, SVOC	Sediment	10/8/2013	11:38	2	4 oz glass jar	4 C	Y
	13B-0527-C2CS-C	13B-0527-C2CS	TPH Extracatables	Sediment	10/8/2013	12:06	1	4 oz glass jar	4 C	
	13B-0527-C2CT-C	13B-0527-C2CT	TPH Extracatables	Sediment	10/8/2013	12:06	1	4 oz glass jar	4 C	
	13B-0527-C3AS-C	13B-0527-C3AS	TPH Extracatables	Sediment	10/8/2013	12:33	2	4 oz glass jar	4 C	Y
	13B-0527-C3CS-C	13B-0527-C3CS	Metals + Ti, SVOC	Sediment	10/8/2013	12:33	1	4 oz glass jar	4 C	
	13B-0527-C3CT-C	13B-0527-C3CS	Metals + Ti, SVOC	Sediment	10/8/2013	12:33	1	4 oz glass jar	4 C	
	13B-0556-C1AS-C	13B-0556-C1AS	TPH Extracatables	Sediment	10/7/2013	08:42	1	4 oz glass jar	4 C	
	13B-0556-C3AS-C	13B-0556-C3AS	Metals + Ti, SVOC	Sediment	10/7/2013	09:45	1	4 oz glass jar	4 C	

Special Instructions: Ignore tag #'s	**SAMPLES TRANSFERRED FROM**
	CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt

USEPA
DateShipped: 10/16/2013
CarrierName: FedEx
AirbillNo: 796924029636

CHAIN OF CUSTODY RECORD
Passaic River
Contact Name: Scott Kirchner
Contact Phone: 732-590-4677

No: 2-101613-115820-0026
Cooler #: 1
Lab: Shealy Environmental
Lab Phone: 803-791-9700

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	13B-0531-C1CS-C	13B-0531-C1CS	Metals + Ti, SVOC	Sediment	10/14/2013	08:48	1	4 oz glass jar	4 C	
	13B-0531-C2CS-C	13B-0531-C2CS	TPH Extracatables	Sediment	10/14/2013	09:21	1	4 oz glass jar	4 C	

Special Instructions: Ignore tag #'s

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt

USEPA

DateShipped: 10/1/2013

CarrierName: FedEx

AirbillNo: 7068 0801 9062

CHAIN OF CUSTODY RECORD

Passaic River

Contact Name:

Contact Phone:

No: 2-100113-111706-0008

Cooler #:

Lab: Spectrum Analytical

Lab Phone: 401-732-3400

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	13B-0533-C3BS-C	13B-0533-C2	Total Organic Carbon - DESA	Sediment	9/26/2013	10:11	1	2 oz glass jar	4 C	
	13B-0533-C3CS-C	13B-0533-C3	Total Organic Carbon - DESA	Sediment	9/26/2013	10:11	1	2 oz glass jar	4 C	
	13B-0560-C3BS-C	13B-0560-C3BS	Total Organic Carbon - DESA	Sediment	9/27/2013	14:00	1	2 oz glass jar	4 C	
	13B-0560-C3CS-C	13B-0560-C3CS	Total Organic Carbon - DESA	Sediment	9/27/2013	14:00	1	2 oz glass jar	4 C	

Special Instructions: Ignore tag #'s

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt

USEPA

DateShipped: 10/3/2013
CarrierName: FedEx
AirbillNo: 796829690090

CHAIN OF CUSTODY RECORD

Passaic River
Contact Name: Scott Kirchner
Contact Phone: 732-590-4677

No: 2-100313-113157-0009

Cooler #:
Lab: Spectrum Analytical
Lab Phone: 401-732-3400

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	13B-0501-C1BS-C	13B-0501-C1BS	Total Organic Carbon - DESA	Sediment	10/1/2013	10:53	1	2 oz glass jar	4 C	
	13B-0501-C1CS-C	13B-0501-C1CS	Total Organic Carbon - DESA	Sediment	10/1/2013	10:53	1	2 oz glass jar	4 C	
	13B-0503-C2AS-C	13B-0503-C2AS	Total Organic Carbon - DESA	Sediment	9/30/2013	09:32	1	2 oz glass jar	4 C	
	13B-0559-C2AS-C	13B-0559-C2AS	Total Organic Carbon - DESA	Sediment	9/30/2013	12:00	1	2 oz glass jar	4 C	
	13B-0559-C2CS-C	13B-0559-C2CS	Total Organic Carbon - DESA	Sediment	9/30/2013	12:00	1	2 oz glass jar	4 C	

Special Instructions: Ignore tag #'s

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt

USEPA

DateShipped: 10/8/2013
CarrierName: FedEx
AirbillNo: 796861063482

CHAIN OF CUSTODY RECORD

Passaic River
Contact Name: Scott Kirchner
Contact Phone: 732-590-4677

No: 2-100813-110555-0013

Cooler #:
Lab: Spectrum Analytical
Lab Phone: 401-732-3400

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	13B-0567-G2AS-C	13B-0567-G2AS	Total Organic Carbon - DESA	Sediment	10/4/2013	08:14	1	2 oz glass jar	4 C	
	13B-0571-C3CS-C	13B-0571-C3CS	Total Organic Carbon - DESA	Sediment	10/4/2013	08:50	1	2 oz glass jar	4 C	
	13B-0571-C4BS-C	13B-0571-C4BS	Total Organic Carbon - DESA	Sediment	10/4/2013	10:00	1	2 oz glass jar	4 C	
	13B-0574-C1CS-C	13B-0574-C1CS	Total Organic Carbon - DESA	Sediment	10/2/2013	08:25	1	2 oz glass jar	4 C	Y
	13B-0574-C3AS-C	13B-0574-C3AS	Total Organic Carbon - DESA	Sediment	10/2/2013	10:00	1	2 oz glass jar	4 C	
	13B-0574-C3AT-C	13B-0574-C3AS	Total Organic Carbon - DESA	Sediment	10/2/2013	10:00	1	2 oz glass jar	4 C	

Special Instructions: Ignore tag #'s

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt

USEPA

DateShipped: 10/10/2013
CarrierName: FedEx
AirbillNo: 796872120365

CHAIN OF CUSTODY RECORD

Passaic River
Contact Name: Scott Kirchner
Contact Phone: 732-590-4677

No: 2-100913-121250-0020

Cooler #:
Lab: Spectrum Analytical
Lab Phone: 401-732-3400

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	13B-0521-C3AS-C	13B-0521-C3AS	Total Organic Carbon - DESA	Sediment	10/9/2013	09:51	1	2 oz glass jar	4 C	
	13B-0521-C3CS-C	13B-0521-C3CS	Total Organic Carbon - DESA	Sediment	10/9/2013	09:51	1	2 oz glass jar	4 C	
	13B-0511-C1BS-C	13B-0511-C1BS	Total Organic Carbon - DESA	Sediment	10/8/2013	09:08	1	2 oz glass jar	4 C	
	13B-0527-C1AS-C	13B-0527-C1AS	Total Organic Carbon - DESA	Sediment	10/8/2013	11:38	1	2 oz glass jar	4 C	Y
	13B-0527-C3CS-C	13B-0527-C3CS	Total Organic Carbon - DESA	Sediment	10/8/2013	12:33	1	2 oz glass jar	4 C	
	13B-0527-C3CT-C	13B-0527-C3CS	Total Organic Carbon - DESA	Sediment	10/8/2013	12:33	1	2 oz glass jar	4 C	
	13B-0556-C3AS-C	13B-0556-C3AS	Total Organic Carbon - DESA	Sediment	10/7/2013	09:45	1	2 oz glass jar	4 C	

Special Instructions: Ignore tag #'s

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt

USEPA

DateShipped: 10/16/2013
CarrierName: FedEx
AirbillNo: 796924183496

CHAIN OF CUSTODY RECORD

Passaic River
Contact Name: Scott Kirchner
Contact Phone: 732-590-4677

No: 2-101613-121050-0028

Cooler #:
Lab: Spectrum Analytical
Lab Phone: 401-732-3400

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Preservative	Lab QC
	13B-0531-C1CS-C	13B-0531-C1CS	Total Organic Carbon - DESA	Sediment	10/14/2013	08:48	1	2 oz glass jar	4 C	

Special Instructions: Ignore tag #'s

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt

Attachment 4

Logbook Notes

Lower Rosaic

Logbook #12

WEATHER

SSP2 Coring

8-H2

CONTENTS

PAGE	REFERENCE	DATE
	QC	
1&7	Beachscale Testing	8-1-12
8-31	SSP2 Probing	6-3-13
32-148	SSP2	9-24-13
		- 10-25-13

"Rite in the Rain®"
ALL-WEATHER WRITING PAPER

ALL-WEATHER
FIELD BOOK

Name CDM Smith

Address 110 Fieldcrest Ave #8 6th Floor
Edison NJ 08837

Phone (732) 225-7000

Project Lower Passaic River
Oversight Logbook #12

This book is printed on "Rite in the Rain" All-Weather Writing Paper - A unique paper created to shed water and enhance the written image. It is widely used throughout the world for recording critical field data in all kinds of weather. For best results, use a pencil or an all-weather pen.

Specifications for this book:

Page Pattern		Cover Options	
Left Page	Right Page	Polydura Cover	Fabrikoid Cover
Columnar	1/4" Grid	Item No. 350	Item No. 350F

Abbreviations

JR - Jerr Rakowski
RM - Ryan McCarthey (AEcom)
KVN - Kris Van Nearsen (AEcom)
J.Rolfe - John Rolfe (De Maximus)
DM - De Maximus
wd - Water depth
CDM - CDM-Smith
Hg - Mercury
TOC - total organic carbon
PCB - Poly Carbonated biphenyl
TSS - total suspended solids
SAA - ~~Same~~ Same as above from 6-4-13
CPG - Cooperating Party group
NA - not available
SO - Sean O'Hare
PC - Pat Connelly

SSR2 probing

6/3/13 J. Rohsenow

PPE: Modified Level D

Weather: Rain, 70°f

personnel: JR (COM), RM, KW (AECOM) John Roffe (DM)

objective: Probing of SSR2 locations

0750 JR arrives onsite — AECOM is currently loading up equipment

0847 Shove-off from CPG facility

0940 Setup equipment and arrive at first sample location ID-13P001 in Keachy, NJ.

1050 Approach #13 adjacent to the Arlington Diner

1055 Complete 13P001 Area. Next Area is RM 8.75

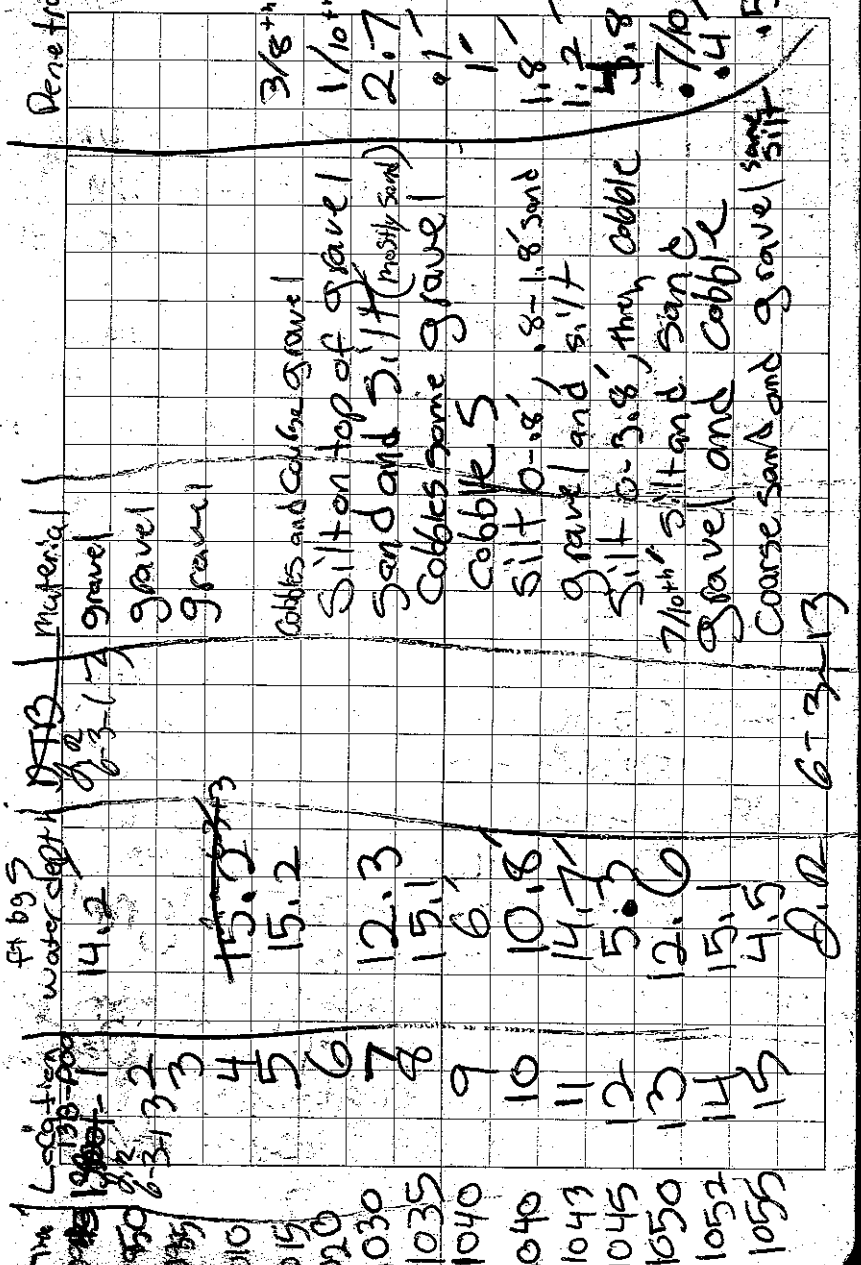
1215 Location 06 ~~+2.36~~ will be collected at a later time when GPS signal is stronger

1300 GPS is still acting up. AECOM will head upstream to location #40.

1615 Arrive at RM 9.5 location #63

J.R 6-3-13

6-3-13, SSR2 probing



SSP2 Probing 6-3-13

Time	Location	WD	material	Penetration
1100	13-B-8016-16	14.0	Silt and sand	2.8
1102	2	16 17	14.6 mostly silt, some sand	2.6
1105	3	16	4 Silt	6.0
1110	4	18	14 Silt and gravel	1.6
1115	5	20 18	13.7 Silt and sand	0.9
1120	6	22 21	1.0 Silt over sand w sheen	6.3 1.3
1125	7	22	13.5 sand * silt	.8
1130	8	23	14 gravel * silt	2.1
1135	9	24	2 Silt, gravel	5
1145	10	25	14 gravel	1
		26	13.8 Silt * sand	1.1 (no refusal)
		26 27	1.3 Silt	5.9
1215	28		14.2 gravel * silt	1.8
1220	29	29	14.5 Silt (no refusal)	3.5
1225	30		1 Sand	.8
1240	31	15.2	Silt * sand	3 no refusal
1300	32	14.8	Silt * sand	6
1315	33		1.4 Silt w sand lenses	4.6
1325	34	16	Silt	.8 5.3
1345	35	16.8	Silt	5.5
1430	36	5	Silt	.5
	37	16	Silt	4
1432	38	16.8	Silt (no refusal)	3.2
	39	11.5	0-0.5 gravel cobble / 0.5-1.7 silt	1.7

J.R 6-3-13

Time	Location	WD	material	Penetration
1450	40	13	Silt gravel * sand	3.2 no refusal
1505	41	22	gravel * Silt	1.8
1510	42	7.8	gravel * cobbles	3.4 0.4
1515	43	10	7.6 gravel * cobbles	0.4
1315	44	13.2	Silt some gravel	2.3
1520	45	7.5	Silt	1.0
1522	46	11	Silt	1.9
1525	47	19	Silt, then cobble	1
1530	48	19	Silt	3
1532	49	12	Silt	6
1535	50	4.8	sand * cobble	.2
1540	51	16	gravel * silt	1.8
1542	52	6	cobble	0
1545	53	14	Silt	1.9
1547	55	12.8	gravel	1.2
1549	54	5	gravel	.1
1550	56	2	gravel	.3
1600	57	7.4	gravel on top of cobble	.2
1602	58	8	Silt	8
1605	59	21	gravel	.6
1607	60	5.5	Silt sand, concrete	.3
1610	61	19.2	gravel	0
1612	62	12	silt * gravel	.9
1615	63	18	Silt	1

J.R 6-3-13

6-3-13

Time	Location	WD	material	penetration
1620	64	5.9	silt, cobble	.6
1625	65	9.2	silt * sand	3.8
1700	81	6	Silt/gravel	0.1
1705	82	12	Silt	no refusal
1707	83	15.5	Silt	7
1710	84	17.5	gravel/*silt	1.8
1712	85	17.2	gravel*silt	1.5
1717	86	14.5	Silt	5.4
1720	87	4	clay	0.4
1722	88	11	Silt	7'
1725	89	18 1/2	Silt	4'
1730	90	17	gravel silt sand	1' no refusal
1740	91	16	sand some silt gravel	3
1743	92	16.5	silt * Sand	2'

* 77 locations were collected today.

6-3-13

6-3-13

Time	Loc	WD	material	penetration
1645	Skip 66-80 for remainder to utility lines			
1755	Boat heads back to CRC facility.			
1830	depart Site			

6-3-13

SSP2 probing 6-4-13

Lower Passaic River

PPE: Modified Level D

Weather: 65°f, windy

personnel: Jonn Rolfe, J. Rakowski, KVN, Ryan McCarthy.

Objective: Continuation of Soil probing

0735 JR arrives at CPG facility.

0745 JR provides daily summary report of yesterday's activities to George Molnar (CDM)

0755 JR boards boat - awaiting AECOM.

0810 AECOM boards equipment

0825 AECOM needs to finish loading Utility shapefile into GPS.

0925 Shove off from CPG boat ramp

0935 Arrive near Utility area; AECOM sets up GPS on PVC pole;

1004 Start at location #66, RM 9.53. AECOM lost probe in the water.

1030 Stephanie Vaughan and

D.R 6-4-13

Marsha Greenblat board boat - JR leaves boat.

1330 JR back on boat - Marsha Greenblat and Stephanie Vaughn depart boat.

* 1445 Note location #93 moved in from shore - distance unknown GPS down 20-25' off to the west of proposed location. Note* high tide around 6pm today

* 1525 JR recommends that if a location can not be "dead reckoned" and no penetration occurs it may be worthwhile to revisit.

1650 Head to RM 10.8 Area

* 1905 #146 moved 20' east from bridge due to shallow water

* 1908 #154 SAA

* 165 located in concrete - will not collect

* 77* 80 skipped due to location on upland

1940 depart site

J.R 6-4-13

16 6-4-13 SSP2 Probing

Time	location	WD	Material	Penetration
1004	66	lost rod		
1204	144	3'	silt	2.7'
1213	151	10'	silt/sand	5'
1219	163	12.9'	sand mostly under silt	1.9'
1230	164	1'	sand/gravel refusal	0.1'
2 :	143	9.8'	sand/gravel	3'
1255	150	12.5'	sand	2.5'
1300	162	12.5'	sand	2.7'
13 :	161	14.8'	sand	0.6'
1309	160	14.2'	sand/silt mix refusal	0.7'
—	159	not accessible		
—	141	removed from program		
—	142			
—	148	not necessary		
—	147			
1357	66	6-4-13 13'	silt & sand	9'
1405	67	4'	silt	7'
1408	68	1.5'	sand layer mostly silt	3'
1416	72	13.5'	silt	5'
1418	73	2.5'	silt	12.5'
1430	75	16'	silt	4.6'
1433	76	3'	silt, Rock refusal	5'
1435	78	11.8'	silt	6.0' refusal

~~24 probed~~ 6-4-13 J.D2 6-4-13

SSP2 Probing 6-4-13 17

Time	Location	WD	Material	Penetration
1439	79	3.8	silt & gravel	6.3
1445	93	1.2'	silt, thin clay	7.6
1500	94	3.8'	silt	8.4'
1503	95	9.0'	silt	6.5'
1507	96	13.7'	sand	1.4'
1512	97	13.8	sand & gravel silt on top of gravel	3.1'
1515	98	13.2'	sand & gravel native soil	3.8'
1520	99	1.8'	silt	9.4'
1525	100	10.5'	silt	9.2
1530	101	13.6'	sand, gravel, silt	6.0
1535	102	16.5	sand & gravel	1.4
1540	103	14	sand & gravel	2.5
1555	104	12.9	sand & gravel over rock	1
1600	105	16.2	silt & sand	4.8 5.3
1607	106	17.2'	sand	1.5
1610	107	16	sand & gravel	2.8
1613	108	14.2	silt, gravel & sand	5.3
1623	109	18.3	gravel/clay .5/.5 clay	1'
1618	110	19	sand & gravel, clay under	1'
1624	112	18	gravel + hard pack	refusal
1628	111	16.5	3.5 silt/.5 clay, gravel	4'
1630	114	18.4	gravel	.6
1633	113	9	gravel hard pack .5/silt	5.0
1637	115	9.8	silt	6.0

*24 probed J.D2 6-4-13

SSP2 Probing — 6-4-13

Time	Location	WD	Material	Penetration
1640	116	19.4'	clay	1' 2.6 6-4-13
1700	117	14.9	Sand*gravel	2'
1708	118	20	Sand*gravel	1.9
1712	119	8.4'	Silt	6.0
1716	122	11'	3 silt, 2 sand gravel	5'
1720	121	16.4'	Silt*sand	4.1
1723	120	14.3'	silt*gravel	2.8
1727	124	19.2	1.7 silt and gravel	2.7
1730	125	6.1'	gravel/silt	4.9'
1737	123	14.8'	gravel/sand	1.8'
1741	126	15.8'	Silt, gravel, clay	2.9
1745	128	12	silt	2.9
1749	127	18'	gravel* silt	8'
1755	131	7.8	Sandy silt	1.9'
1800	130	16.2	sand/gravel	1'
1805	129	14.9	sand/gravel	13.9'
1812	132	15'	Sand/gravel	2.8 6-4-13
1815	133	16.1'	gravel	1'
1818	134	6.8'	silt	6.5 8' 6-4-13
1825	135	16	silt/gravel	6'
1832	136	12	silt, some gravel	2.9'
1836	137	15	gravel/silt	4'
1843	138	10'	Silt	4.3'
1842	140	6.5'	Silt* some sand	5'
1847	139	14.5'	Sand*gravel	2.7'

8.02 6-4-13

*6 cores

SSP2 Probing — 6-4-13

Time	Loc	WD	Material	Penetration
1847	147	3.8	some silt	3.4
1850	145	4.4	Silt (no refusal)	4.4
1900	152	8	Silt (no refusal)	3.8
1902	153	4.2	Silt	.8
1905	146	6	gravel and sands	1.5
1908	154	4.5	1.5 silt	1.5

2.

6-4-13

20 6-5-13 SSP2 Probing

PDE: Modified Level D

Weather: 65°F

personnel: JR (Comsmith), KVN, RM (AECOM), John Raife (De Maximus)

objective: Continue soil probing

0745 JR arrives onsite

0820 ↙ Shove off

0850 Arrive at 171 area

0920 AECOM on phone with Doug Simmons to discuss if any changes in probing locations are being implemented

* AECOM is being asked to start locations as close to shore as possible and then move 60 offshore.

*0950 175 will be collected again due to instruction from office. This will be collected closer to shore. Channel stations will be skipped unless specified otherwise.

J. R 6-5-13

SSP2 Probing 6-5-13

Time	Location	WD	Material	Penetration
0900	171	8	silt	5.8
0905	172	15.8	sand*gravel	3.4
0908	173	16	sand*gravel	1.8
1000 0911	174	17.2	gravel*silt w cobble	1
~~1003~~ 0914	175	10.9	silt	4.2
6-5-13 0924	176	3.9	gravel/cobble/rock on top	0.1
0936	177	15	gravel .5-3 silt 3-3 gravel	3.5
0945	181	3	gravel*cobble	0
0948	182	15.2	debris 2-4 *gravel	4
0950	175R	1.2	sediments	1.2
0952	180	.9	c.5 gravel sand .5-2.5 silt	2.5
1008	179	16.1	gravel*sand	3.0
1014	185	.4	silt	5
1017	184	14	sand gravel*silt	5
1020	183	10	gravel-cobble	0
1024	198	18	sand*gravel	.1
1032	191	2.8	sand*silt Refusal cobble	.5
1035	192	16.6	silt	1.2
1039	197	2	Cobble	0
1042	198	16.9	gravel+sand	.3
1045	203	14.1	Sand*silt	.5
1050	202	1.2	silt mtop rock	.7
1100	190	.2	sand	4.1
1104	189	10.6	Sand*silt	1.3

24 cores

J. R 6-5-13

*1020 178 * 183 will be Skipped (mid channel locations)

* 1035 196 is located Upland and won't be collected

* 1151 212 was moved to border of polygon line AECOM received.

*1155 #217 was located in mud-flats (not accessible

* 186 not accessible

* 230 Skipped upland

* 2nd locations offshore are being moved 60' or less if 60' lands inside Polygon. If inside polygon locations are being moved outside which would result in <60 feet (less than),

1232 223 Skipped (located on mud flats)

1239 #229 Skipped (upland)

1735 Head toward ~~Third River confluence~~ DR 6-5-13

RM 9.5 to probe locations.

1815 Confirmed 74 is located upland

DR 6-5-13

Time	Location	WD	Material	penetration
~~1112 HOTEL~~ DR 6-5-13	195	.7	silt+sand	4'
1122	194	9	Sand	1.4'
1128	201	.8	Silt, Rocks below	1.4'
1132	200	6	Silt	6.2'
1134	207	.9	Silt	4.0'
1138	206	8.1	silt+sand	DR 6-5-13 ~~4.0'~~ 6.5'
1142	208	1'	Silt/gravel/sand over top cobble	.9'
1145	209	4.3	cobble	0
1148	211	6	Silt	4.3
1151	212	14.9	gravel/cobble	.2
1155	216	1.1'	silt + sand lenses	4'
1202	219	15'	gravel	.5'
1206	224	1'	Silt	2.8'
1210	2RG-5-13 225	11	sand+silt same gravel	3.3'
1213	231 ~~230~~	.7	Sand	2.2'
1216	232	13.5	Gravel	.4'
1220	216	1.6	Silt	3.2'
1223	215	5'	silt+sand over cobble	2'
1232	222	1'	Silt+sand	4.5'
1235	221	9.3'	Rock	0'
1239	228	1.9'	silt+sand	.2'
1326	248	8.8	gravel, cobble, Rock	.1'
1330	249	16.2'	grave, cobble	0
1333	250	2'	gravel/cobble Rock Refusal	.3'

DR 6-5-13

24 cores

SSB2 probing

6-5-13

Time	Location	WD	Material	Penetration
1337	251	10.1	Cobble Some gravel	.4
1341	252	14.8	gravel * cobble	.3
1344	253	6.5	Sand * gravel	2.5
1348	254	13.8	gravel * Cobble	0
1351	255	14.1	Sand * gravel	0
1353	256	1.2	silt, Sand, cobble most sand	1
1356	257	10.4	Sand	4
1402	258	2.9	.5 Sand * Cobble .5 silt	2
1405	259	6.2	Silt, clay at refusal	8
1407	260	8.9	Silt, sand at refusal	5
1415	263	1.7	Sand, rip rap and cobble refusal	.5
1418	265	13.9	.5 Sand then .5 clay	1
1424	266	1.5	gravel Sand, Refuse gravel and rip rap	1.2
1427	268	14.9	gravel and Sand	1
1430	267	1.5	.5 Sand on top cobble rip rap	.5
1434	270	14.2	gravel * Sand	.5
1438	275	1.1	Sand	1.1
1450	276	9.7	Sand	.5
~~1453~~	~~277~~	2m 6-5-3	Sand	1
1457	278	11	Silt	4.5
1501	279	1	Sand	.1
1504	280	12	.5 silt over Sand, 2 gravel	2.5
1513	290	1.1	Sand	3
1516	291	15.7	Silt * Sand	2.5

24 Cores J.R 6-5-13

SSB2 probing

6-5-13

Time	Location	WD	Material	Penetration
1528	~~294~~ 292	2m 6-5-3 .5	Sand	1
1526	~~295~~ 293	1.2	gravel	.5
1529	294	6-5-13 1.3	Sand, rock refusal	.5
1532	295	8.1	gravel * Rock	0
1536	296	6.1	Silt * Sand	7.1
1540	297	11.5	gravel sand * Silt	3.5
1543	298	3.5	Sand * silt gravel refusal	1.4
1546	299	1.8	Sand	1
1549	300	2.6	c-l sand, 1.3.4 Silt Rock Refuse	3.4
1558	301	13.8	Sand * Silt	1.7
1618	302	11.4	Sand	1
1622	303	12.5	Silt	4.5
1624	304	16	Silt, Sand refuse	3.9
1628	305	16	Silt * Sand	4.2
1631	906	17.5	Silt * Sand	4
1634	307	12.5	Silt	4.4
1638	308	13.8	Silt	.2
1641	309	15	Silt 2m 6-5-3	2.5
1644	310	~~16.9~~ 16.9	Silt * Sand 6-5-13 1.3	~~4.6~~ 3.6
1647	311	17.9	Silt * Sand	5.1
1649	312	13	Silt	4
1652	313	14	Silt	7
1656	314	15.2	Silt	3.6
1700	315	15.6	Silt	4.4

J.R 6-5-13

Time	Location	WD	material	penetration
1703	316	16.4	Silt	6.1
1713	317	4' .2	Silt over rock	.2
1717	318	13.5	Sand	2.3
1721	319	2.1	Rock	0
1724	320	15	Silt/Sand	4
1727	321	5	.1 silt, Rock refuse	.1
1729	322	16.3	Sand	2.6
1805	69	4.2	gravel	.4
1810	71	5.9	Silt* ~~Sand~~	2.3
1812	70	3.5	Silt for 6-5-13	5.8

J.K

6-5-13

1835 Arrive back at boat ramp and take equipment off of boat.
1910 depart site

J.K

6-5-13

6-6-13

PPE: Modified Level D

weather: 70° f

personnel: JR (COM) Ryan M, KVN (AECOM), John Rolfe (Demaximus)

objective: Completion of SSP2 Soil Probing.

0910 JR arrives at CPG facility to check in.

0945 Shove off from CPG facility

0955 Arrive between RM 11.7* 11.8 (just south of RM 11.8)

1015 ~~tools~~ Location # 323 is located just J.R 6-6-13 south of RM 0.8 on western Shoreline.

1036 Head toward RM 12.2 location # 329 off of west Shoreline

1045 # 331 Eastern Shore

1048 Head to RM 12.4 for location # 333

1110 The next transect will be # 338 200' North of # 333 line.

1115 Move 200' North # 338

J.R 6-6-13

Time	Location	WD	material penetrated	
1018	323	1.1	Sand * Silt, Cobbles from Shoreline concrete refuse	2.3
1022	324	11.2	Silt	2
1026	325	1	Silt-sand some gravel concrete refuse	1.8
1030	326	~~1.0~~ 16.0	Silt, Rock Refuse, Rock Refuse	1.5
1033	327	5.4	gravel * sand, Rock Refuse	.9
1035	328	16.9	gravel, Rock Refuse	.9
1040	329	2	gravel * Rock	.5
1042	330	13.9	silt * sand	2.0
1045	331	11.6	gravel * sand	3.2
1047	332	19.7	Sand	2
1053	333	2.6	Sand * Silt	1.8
1058	334	14.2	silt, gravel / Rock Refuse	2.5
1101	335	16	Sand * silt, Rock Refuse	.5
1104	336	16.4	silt, gravel * sand	1.8
107	337	4.8	Silt with gravel, sand * rock	2
110	338	15.6	1.5 silt, .5 gravel	2.0
112	339	1.9	Sand and gravel	.1
123	340	1.2	gravel * sand, cobble	.2
127	341	12.4	3.1 silt, .5 grav * sand	3.6
129	342	2	.5 gravel, sand, cobble rock	0.5
133	343	13.8	gravel * sand	1.7
140	344	1.9	Sand, Rock Refuse	3.7
143	345	8.6	2.2 silt,	2.2
146	346	10.9	3.1 silt, 2.0 sand	4.1

J.R 6-6-13

30 SSP2 probing
6-6-13

1125 Move 200' North of #340 to #341

1133 Move 200' North of #341 to #343

1315 Arrive at CPC ramp and unload boat.

1340 Arrive at CPC facility and confirm today's locations on map.

1410 depart Site

6-6-13

6-6-13 SSP2 probing 31

Time	Location	WD	material	penetration
1202	347	1.9	.1 sand, 1-2.1 silt	2.1
1207	348	1.7	Sand	2
1212	349	~~1.4~~ 1.3	Silt, sand refusal	5
1215	350	1.5	.2 sand & gravel	.2
1218	351	14.2	gravel & sand	1.2
1221	352	13.5	gravel/sand, silt	2.2
1223	353	7'	silt	5.2
1227	354	.8	Sand	2.1
1230	355	15.5	gravel & sand	.5
1234	356	1.7	gravel on rock, gravel refusal	0
1237	357	12	2.8 silt & sand	2.8
1242	358	9.5	silt & sand	2.8
1245	359	2.5	silt & sand over	4
1248	360	9.7	gravel, Rock Refusal	.5
1251	361	13.6	1' sand over 1' silt	2'

13

6-6-13

Lower Passaic River 9/24/13
32 SSP2 Probing USACE

06:00 → Sean O'Hare (SOH) of CDM Smith takes authorship of this logbook. SO arrives on Site.
Weather → Clear skies ~70°F
PPE → Level D Modified
06:15 → SO, drops off coolers filled w/ bottlewater & supplies at CPG facility.
06:50 → Drive over to boat dock, QSI & AECOM are loading boat.
07:05 → Depart CPG dock and head down to location 0547. Deion Lewis of AECOM & Dave Smith of AECOM are on board w/ QSI captain Jay DiLorenzo. Deion Lewis informs SO that QSI & AECOM collected a sample last night. The first attempt was without the catch, the second

SO — 9/24/13

was with the catch and had a recovery of 9.5'. Native material was recognized at 9.5'.
08:00 → QSI sets up on location by tieing off to two points on the eastern side of river.
08:20 → QSI finishes tieing off and assembles vertical column (videocore) head.
Total Water Depth → 10.9'
Coordinates:
Eastly → 595016.87'
Northly → 723826.68'
Begin drilling SB-0547
The core was cut in half and capped / labeled and placed into transfer vessel.
09:30 → QSI advances second attempt to collect additional volume for

SO — 9/24/13

CDM Smith split.
09:25 → The head stops working for some reason. OSI will need to replace head before collecting the second core. In the interim, OSI will collect the grab sample at this location & dump with the nearest grab sample location.
09:50 → Lower clamshell and collect sample. Clamshell bucket is completely full. Coordinates are:
N → 723815.15'
E → 595015.93'
Total Water Depth → 10.9'
Collect PID readings from grab
H_2S → 1 ppm
O_2 → 21.7%
VOC → 0 ppm
LEL → 0 ppm
CO → 0 ppm

SO 9/24/13

10:05 → AECOM collects grab samples for AVS/SEM and two buckets worth of sediment to analyze in collect samples back up in processing facility. Grab consists of the top 6-inches.
10:30 → SO informs Helen Jones of AECOM that CDM Smith will not collect from 13B-0547 due to OSI having difficulty with vibracore head. Instead, CDM Smith will collect from another location.
10:40 → OSI moves off location and navigates to 13B-0546 to collect grab sample.
10:55 → OSI lowers grab. First ~~two~~ attempts (SO 9/24/13) are unsuccessful. Third attempt is good.
Location details:
Total Depth: 17.3'

SO 9/24/13

N → 723771.2ft
E → 594816.54'
11:00 → Take PID readings:
H_2S → 1 ppm
VOC → 1.31 ppm
O_2 → 21.5%
CO → 1 ppm
LEL → 0 ppm
Distance to target → 18.3'
11:25 → Collect sample from grab sample for AVS/SEM and fill up two 1-gallon buckets 3/4.
11:40 → Raise grab sample and wash off deck/lower mast.
*Note: Grab sampler was decon'd between sample locations.
Grab samples
13B-0547-G1
13B-0546-G2
11:45 → Depart on route to CPG dock. OSI will

SO 9/24/13

drive out vibracore head. SO & AECOM will head to facility.
12:10 → Arrive at CPG dock and tie off boat.
12:15 → Arrive at CPG facility and talk to field team leader Helen Jones. Helen Jones informs SO that AECOM was able to collect a split sample from 13B-0547.
12:40 → Depart CPG facility to CPG dock. OSI is testing out replaced driller.
12:50 → Drill head is working properly.
13:00 → OSI departs CPG dock en route to station 13B-0551-G2
13:10 → Raise mast and continue heading down to location
13:30 → Arrive at location.

SO 9/24/13

Area is difficult to maneuver and dock at.
13:55 → QSI docks at location and lands liner into sample barrel. Measurements include:
N → 725604.92'
E → 596614.52
Total Wate Depth → 6.8'
Distance from target → 11.6'
14:30 → AECOM penetrated 6' but only received 3.15' of recovery (52.5%)
14:45 → Advance second core at 13B-0551-C2 GPS coordinates
N → 725599.28'
E → 596621.15'
Depth to water → 5'
Distance from target → 3.5'
Penetration → 1.8'
Recovery → 1.55'
% → 86%
15:00 → Attempt the third and final core at

9/24/13

13B-0551-C3
Penetration → 4.4'
Recovery → 2.0'
45%
* QSI hit refusal on all three attempts at location 13B-0551 at 6', 1.8', and 4.4'.
13B-0551-C3 details:
N → 725588.06'
E → 596600.70'
Tot Water Depth → 8'
Distance from target → 23.21'
15:55 → Set up core log
13B-0551-G1
Depth to water → 5.9'
N → 725580.55'
E → 596613.77'
Distance from target → 17.7'
16:10 → Record PID measurements.
LEL → 0 ppm
VOCs → 1.6 ppm
H_2S → 1 ppm
O_2 → 21.6%
CO → 0 ppm

9/24/13

16:15 → ~~Begin collecting the~~ SO 9/24/13
AUS/SEM sample from the ~~Power grab~~ SO 9/24/13 Sample taken from second attempt 13B-0551-G2

16:25 → Arrive at 13B-0551-G2 location and lower grab sampler.
N → ~~Same as above~~ 55357.441
E → ~~Same as above~~ 596599.591
~~Total water depth~~ → SO 9/24/13
1st attempt is unsuccessful, 2nd & 3rd attempt are successful
VOCs → 0%
LEL → 0%
H_2S → 0%
O_2 → 21.7%
CO → 0%

16:35 → Depart location en route back to CPG dock. 1 bucket is full with 13B-0551-G2 and 1 bucket is filled by 13B-0551-G3

17:00 → Arrive back at CPG Facility

SO 9/24/13

0835

0547-A
0547-G1AS } 1 split
0564-G2AS @ 14:57
9/23 samples
13B-0547-C2 → 18:35 on 9/23
9/24 samples
~~13B~~-0547-C3
13B-0547-G1AS
13B-0563-C2
13B-0563-C1
13B-0563-G1AS
13B-0546-G2AS
13B-0564-G2AS
13B-0551-C2 (only) No C3 or G1
13B-0551-G2AS
SO 9/24/13
0547 → H interval } Not enough
0551 → B interval } volume
SO 9/24/13
0564-C1 }
0564-C2 } Not enough volume
0564-C3 }
17:45 → Arrive back at CPG facility SO

SO 9/24/13

discusses upcoming field work on the 3rd River. Helen Jones (HTJ) will pick up SO around 10:30 from the Condo and proceed to RM 8 9/24/13 the Third River.

*08:45 → Arrive at location 13B-0510-C1 OSI and AECOM begin loading sampling barrell with liner, core catch, & shoe.

08:50 → OSI opens up window and grabs water depth.

Depth to water → 8.9'

N → 712573.89'

E → 590067.16'

Distance from proposed → 2.9'

* SO assesses packing/comp process and depths site rep confirming split samples are in coolers. Split samples were taken from 13B-0547-C1 13B-0547-G1 and grab sample 13B-0564-G2.

SO 9/24/13

06:45 → SO arrives at the CPG facility and signs in. SO will label bottleware sets for potential split samples collected today.

Weather → Clear skies ~75°F

PPE → Level D Modified w/ lifevest.

07:05 → Depart CPG facility to dock.

07:15 → AECOM loads supplies into boat and discusses health & safety including slips/trips/falls, wearing proper PPE, & staying aware.

07:30 → Depart CPG dock en route to location 13B-0510

07:40 → AECOM decons pneumatic grab sampler. OSI (Jay DiLorenzo / Mayer) raises mast and continues downriver.

08:45 → See previous page

SO 9/25/13

for details on first core in location 13B-0510-C1.SP accidentally wrote in yesterday's page.
Penetration -> 9.5'
Recovery -> 7.5'
It is a 78% success rate
09:35 -> Attempt second core but it is prematurely cancelled. A large rock was stuck in barrell. Remove rock.
09:50 -> Make third attempt at location 13B-0510-C3
N -> 712572.81'
E -> 590071.26'
Total Water Depth -> 10.9'
Δ -> 5.1'
Penetration -> 9.5'
Recovery -> 7.6'
80% -> Success Rate
Third attempt is successful
10:30 -> Make an additional attempt to collect an

SO 9/25/13

extra core but is unsuccessful (COM Split).
N -> 712566.39'
E -> 590064.91'
Depth -> 11.5'
* AECOM will attempt to collect the grab sample at 13B-0510-G1.
N -> 712568.01'
E -> 590061.05'
Total Water Depth -> 11.9'
First attempt is unsuccessful.
Second attempt at 13B-0510-G2
N -> Same as above
E -> Same as above
Total Water Depth ->
Second attempt is not successful due to a large boulder.
Third attempt is made at 13B-0510-G3. Third attempt is unsuccessful. There will be no more attempts.
11:15 -> Navigate up river to determine if there is

SO 9/25/13

Lower Passaic River
USACE

9/25/13
USACE

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adequate clearance to pass under RM 10.3 bridge!

11:20 → There is not enough clearance. The Candu will have to work on locations below RM 10.3 bridge.

11:45 → SO hops onto timsfer vessel with HJ & Dan of AECOM to determine the presence or absence of sediment in the area of the Third River. Due to lack of water during last probing event, AECOM was not able to access Third River. Therefore, AECOM will enter the Third River and conduct recon for potential sampling points & EPA has suggested two locations. Utility clearance has not been approved last time during the June 3-6, 2013 probing event. AECOM heads up the 3rd River as far as possible, 1/4 of a mile into 3rd

SO 9/25/13

5.95
1.95
7.60

5.95
1.85
7.70

7.8
5.95
1.85

Depth of water → 5.95'
River is blocked by a fallen tree
13B-P400
Location consists of sand substrate
Total Depth → 7.8'
Difference → 1.95' penetration through sediment.
12:15 → SO takes photos of Third River and travels to next loc
Location → 13B-401
Depth of water → 6'
Total Depth → 8.9'
Penetration through sediment 2.9'
Sediment consisted of a gravel substrate.
12:25 → Probe next location 13B-P402
Depth of water → 5'
Penetration of sediment → 1.15'
Total Depth → 6.15'
Substrate consisted of sandy gravel.
12:35 → 13B-P403

JO 9/25/13

Lower Passaic River
SSPD - Probing

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USACE

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Depth of Water → 1.8'
Total Depth → 5.73'
Sediment Penetration → 4.45'
12:50 → Set up at 13B-P404
Substrate consists of sand
Depth of Water → 3.8'
Total Depth → 4.9'
Sediment Penetration → 1.1'
13:00 → Set up at 13B-P405
Depth of Water → 6.4'
Total Depth → 7.7'
Sediment Penetration → 1.3'
COM Smith's Depth of Water → 6'
COM Smith's Total Depth → 8.6'
13:05 → Set up at 13B-P406
Depth of water → 2.75'
Total Depth → 3.8'
Sediment Penetrn → 1.05'
Substrate consists of silt
13:20 → Set up at 13B-P407
Depth of Water → 6.1'
Total Depth → 7.5'
Penetration → 1.5'

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Lower Passaic River
SSPD Probing

9/25/
USA

Set up at 13B-P410
Depth of Water → 5.95'
Total Depth → 8'
Penetration → 2.05'
13:35 → Arrive at 13B-P4
Set up at 13B-P411
Depth of Water → 3.25'
Total Depth → 4.9'
Sed. Penetration → 1.65'
Set up at 13B-P412 → 13:
Depth of Water → 2.9'
Total Depth → 3.7'
Sed. Penetration → 0.8
Set up at 13B-P413 → 13:
Depth of Water → 0.9
Total Depth → 6.3
Sed. Penetration → 5.4
Set up at 13B-P414 → 13:
Depth of Water → 3'
Total Depth → 6.4'
Sed. Penetration → 3.4'
Sandy silty substrate
Set up at 13B-P415 → 13
Depth of Water → 3.3'

SC 9/25/13

Lower Passaic River
SSPB-Probing

9/25/13
USACE

50
Total Depth → 6.6'
Sed. Penetration → 3.3'
Substrate is
13:40 → Set up 13B-P416
Depth of Water → 7.8'
Sed. Penetration → 0'
Total Depth → 7.3'
Substrate is hard bottom
13:45 → Set up at 13B-P417
Depth of Water → 6.4'
Sed. Penetration → 3.15'
Total Depth → 9.55'
Substrate is sandy silt
13:48 → Set up at 13B-P418
Depth of Water → 5.95'
Total Depth → 6.9'
Sed. Penetration → 0.75'
Substrate is gravel
13:50 → Set up at 13B-419
Depth of water → 4.0'
Total Depth → 5.25'
Sed. Penetration → 1.95'
Substrate is silt
13:52 → 13B-P420

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Lower Passaic River
SSPB-Probing

9/25/1
USAC

Water depth → 6.5'
Total Depth → 7.15'
Sed. Penetration → 0.65'
Substrate is
13:55 → 13B-P421
Water depth → 10.55'
Total Depth → 9.6'
Sed. Penetration → 0.95'
Substrate is silt, fr. sand
13:58 13B-P422
Water depth → 3.7'
Total Depth → 9.28'
Sed. Penetration → 5.55'
Substrate is silt
13:08 13B-P407
Water depth → 4.9'
Total Depth → 6.7'
Sed. Penetration → 1.8'
Sandy w/ gravel subst
13:12 → 13B-409
Depth of Water 2.5'
Total Depth → 5.3'
Sed. Penetration 2.8'
Substrate is silt overlying

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14:00 > Depart Third River en route to the Cardo vessel to pick up cores.

14:25 > SO departs back to CPG dock in transfer vessel and will oversee processing station.

15:30 > SO calls Shawn Burdick of CDM Smith and informs her of progress regarding the Third River. Shawn Burdick requests that the log notes will need to be copied and left on her desk.

15:55 > SO speaks to Jeff Ratowski (JR) of CDM Smith and agrees to meet at Edison warehouse ~4PM tomorrow afternoon to set up coolers and ship out samples.

16:30 > SO goes to processing tent and checks out the procedures. Teresa

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of AECOM explains steps to follow when processing The cores are taken fr the walk-in freezer and placed into core stand. T core is placed upright int stand and is drained if th is any residual water at top of the core. The top six inches is ta from the core and is used for the A-interval sa Then, the remainder o samples depend on how much is left above the SO 9/25/13 remedial native material. Ea sample is taken at fort interval (0.5-1.5, 1.5 2.5, 2.5-3.5 etc.).

* The purpose of Third R was to determine the presen or absence of sediment Third River. During the last probing event (June

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access was not possible due to low tide (There is no water during peak low tide in the Third River) and since the utility lines were not called in within time.

17:30 → Complete processing oversight. Samples collected today include:

0504 → Deeper than 10' so Core will attempt

* 0563 was processed included

13B-0563-C

13B-0563-G

0512 → Cored today but core had all poor recovery but grab 0512-G was good

0514 → Cored today but core had poor recovery but grab

0514-G was good

0510 → 2 good cores and no recovery on grab

0530 → 3 good cores and a usable grab 0530-G

0528 → Attempted but water

30 → 9/25/13

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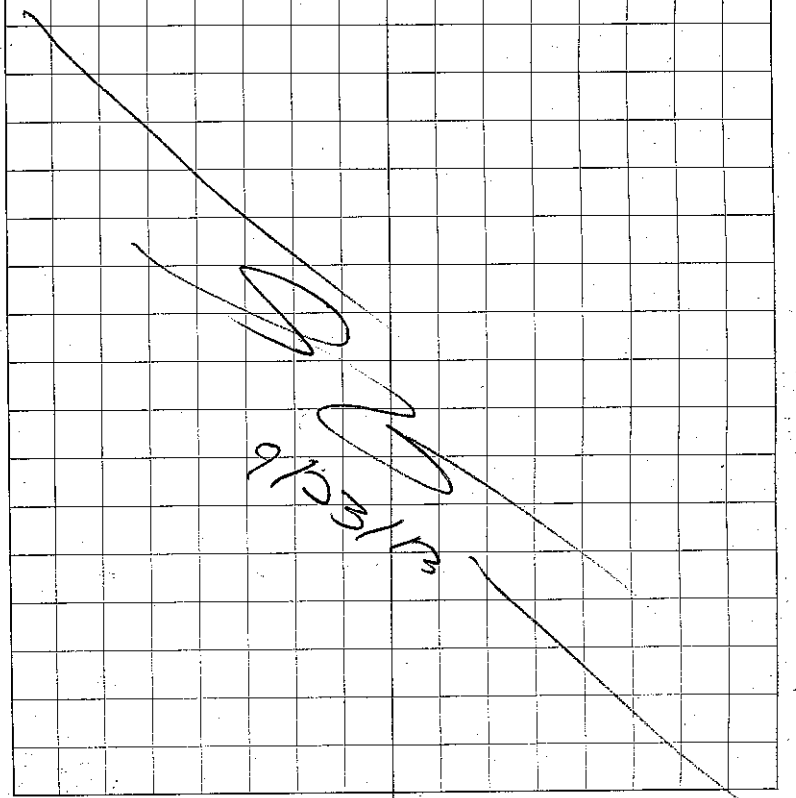
depth was too deep so team will have to use the 20' barrell.

18:00 → SO departs Site en route to office to drop off log notes to Task Leader Shon Bailey.



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07:05 → SO arrives on Site at CPG dock. AECOM is just finishing loading all equipment & supplies into the vessels.

Weather → Partly cloudy ~ 75°F

PPE → Level D Modified w/ Hard Hat

07:10 → Dean Lewis holds health & safety meeting. Topics of concern include: Pinch Points, Slips-Trips-Falls, wearing proper PPE, & staying aware.

07:15 → Navigate to location 13B-0504.

08:00 → Arrive at 13B-0504 and lift up mast. OSI then ties off to shore and attempts to anchor on location.

08:30 → OSI settles on 13B-0504 and assembles 20' core barrell.

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* AECOM decons bucket grab sampler down the trip down river to 13B-0504.

08:50 → Begin coring 13B-0504-C2 (C1 was attempted yesterday by other vessel. However, the 10' barrell did not pick up any native material. Hence, why OSI came back today with a 20' barrell.

13B-0504-C2

N → 706062.20'

E → 587278.95'

Depth of Water → 8.8'

Distance Δ → 11.2'

Penetration → 15'

Recovery → 12.8'

85% success / Native material was at 10.5'

10:00 → Head back to location 13B-0504 and attempt to collect an additional core

10:30 → Collect 13B-0504-C3. Depth of Water is 7.9

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N → 706,062.03
E → 587,275.11
Δ → 7.5' (Distance from proposed)
Penetration → 58'
Recovery → 3.5'
Success Rate →
* Hit refusal at 5.8'. AECOM will attempt a third and final attempt @ 13B-0504-G4
Depth of water → 11.3'
N → 706059.88'
E → 587283.99'
Δ from target location → 16.6'
Penetration → 13.8'
Recovery → 12.7'
Success Rate → 92%
11:50 → Navigate to next to 13B-0504 to collect grab sample.
12:00 → Collect grab sample at 13B-0504-G1. Sample in grab appears to be relatively undisturbed
12:05 → Collect headspace readings:
CO → 2-3ppm ; H_2S → 1 ppm
VOC → 2.2ppm ; O_2 → 21.7%

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12:20 → AECOM collects AVS/SEM sample from grab sampler by filling a 2oz jar. All sampling equipment is dedicated.
13B-0504-G1
N → 706960.56'
E → 588272.58
Δ → 5.6'
(1) 2oz jar and (2) 1 gallon buckets were collected for the AVS/SEM analysis.
13:05 → Anchor down at location 13B-0505-G1 and collect sample.
N → 706028.63'
E → 587336.14'
Δ → 4.3'
Depth of water
* Grab was overrecovery
13:10 → Second attempt
13B-0505-G2
N → 706033.11'
E → 587333.33'

BS 9/26/13

Lower Passaic River
SSP2

9/26/13
USACE

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Δ → 5.4'
Depth of water → 19.9'
* Grab sample was perfect.
AECOM collects headspace readings off of grab samples:
13:20 → AECOM begins collecting AUS/SEM sample along with (2) -1 gal buckets and (1) 2oz jar.
13:30 → OSI begins drilling 13B-0505-C1 with 20' barrell. After collecting first core, OSI/AECOM will decide if a 10' barrell can be used.
13B-0505
N → 706030.85'
E → 587339.01'
Δ → 1.3
Depth of Water → 20'
Penetration 7.6'
Total Recovery → 7.3'
% → 96%
14:25 → Transfer vessel arrives and will drive SO

ISO 9/26/13

9/26/13

Lower Passaic River
SSP2

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back to the CPG facility.
15:00 → SO arrives back at CPG facility and grabs samples from melt-in.
15:30 → SO departs CPG facility en route to Warehouse
Jeff Ratowski of CDM Smith will assist SO in packaging and sending out coolers. Samples will be delivered to the following labs via FedEx overnight:
AXYS, Shealy, Microbac
Samples will be hand delivered to DFESA
* AECOM collected split samples for the following:
13B-0530-C3AS
13B-0530-C4AS
13B-0530-C1AS
13B-0530-C3BS
13B-0530-C1BS
13B-0530-C4BS

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Lower Passaic River
SSP2
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USACE

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07:15 → SO arrives on Site and loads equipment onto sampling vessel (CANDU)
Weather → Clear skies, light wind ~ 70°F
PPE → Level D Modified w/ lifevest
07:30 → SO heads over to the CPG facility to make bottleware sets for next week and record split samples collected last night:
13B-0533-C2CS → Mercury / P-PPT (PAH, Pesticide, PCB, PCDD/PCDF);
13B-0533-C2BS → Mercury / P-P-PP
13B-0533-C3BS → TPH / Metals & Tin SVOC, TOC
13B-0533-C3CS → Metals & Ti, SVOC, TOC, & TPH
08:30 → AECOM collects field / equipment blnk from Grab sampler and liner, bowl, trowel/spoon, & core catcher. Equipment blnk is collected

SO 2

Lower Passaic River
SSP2
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USACE

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from sampling equipment
10:35 → Complete collection of equipment blnk. Analyses include: Full Suite of analyses. Please refer to the AECOM QAPP for the full list
Decon process includes: Alconox water, DI, nitric, DI, methanol DI, & lastly hexane, DI.
10:30 → Depart CPG dock en route to station 13B-0562 just north of GPG dock.
10:45 → Arrive at station 13B-0562 and collect grab sample.
N → 735773.93'
E → 597453.26'
Water Depth → 11.3'
Δ → 4.1
* AECOM will collect some sediment from 13B-0562-G1 and will need to collect remaining from 13B-0562-G
A 4-gallon bucket and 4 oz

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Lower Passaic River
SSP2

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for AUS/SEM, 6 (Coarse Sandy Substrate)
CO → 3 (bkgd), 4 ground
Background → 1.7 ppm; 2.5 ppm
H_2S → 0 ppm; 2 ppm
O_2 → NA
LEL → NA
11:20 → OSI makes second ground attempt at 13B-0562-G2
N → 735801.54'
E → 597465'
Depth of Water → 12'
Δ → 15.3'; Total Water →
Grab #2 consisted of coarse sand w/ some gravel, and garbage (coke can)
PID measurements of soil: 11
H_2S → 0 ppm
VOC → 0 ppm
O_2 → NA; LEL → NA
CO → High background
11:35 → AECOM decons grab sampler while OSI navigates to location 13B-0560-G1. AECOM collects a grab

SO — 9/27/13

Lower Passaic River
SSP2

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USACE

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sample from Grab 1: AECOM collects
N → 734180.49' AUS/SEM
E → 597078.52' (1 4oz jar & 1 1-gallon bucket)
Δ → 2.6' from target
Water Depth → 13.3'
12:05 → OSI navigates to location 13B-0560-C1 and advances drum:
N → 734181.75'
E → 597076.47'
Δ → 1.8'
Total Water Depth → 14.2
Penetration → 6.4'
Recovery → 6.2'
13:05 → Advance second core at 13B-0560-C2
N → 734176.66'
E → 597074.62'
Δ → 4.2'
Total Water Depth → 14.8'
Penetration → 8.9'
Recovery → 10' (100%)
Since recovery was greater than penetration, it is likely that

SO — 9/27/13

some expansion had occurred during the coring process. The substrate consisted of a dark grey / stiff clay. Clay became lighter in color towards the bottom of the core.

13:35 → OSI / AECOM cut core and cap ends before placing into icebox on board.

13:40 → OSI inserts new liner after washing out core barrell and setting up for the third and final core. The third and final core will be extra volume for CDM Smith's split sample.

13:50 → OSI begins coring

13B-0560-C3:

N → 734177.33'

E → 597079.84'

Δ → 3.8' frm target

Total Wtr Depth → 15.3'

Penetration → 6.5'

Recovery → 6.8'

9/27/13

Sample Summary - 9/27

0565-G1 @ 08:24 - Grab only

0566-G3 Grab is good, capped

0568-G2 @ 13:35 - grab only

0562-G2 @ 11:20

0562-G1 @ 10:50 } Grab only

0560-C1 @ 12:35 - 97%

0560-C2 @ 13:15 - 112%

0560-C3 @

0560-G1 @

Sample Summary Processed

0564-C2 @ 08:55 - 85%

0564-C4 @ 11:00 - 92%

0564-G1 @ 12:00 - grab } Priority Lock

0550-C1 @ 12:37 - 91%

0550-C3 @ 13:59 - 97%

0550-G1 @ 14:46 - grab

0565-C1 @ 13:25 - 96%

0565-C2 @ 14:2 - 115%

0565-G2 @ 13:12 - grab

15:30 → SO departs en route to CDM Smith warehouse

9/27/13

Lower Passaic River
SSP2
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9/30/13
USEPA
P. Connelly

06:50 - P. Connelly onsite at CPG facility. Meets with Dion of AECOM.
07:00 - Pc heads to CPG dock
Weather - sunny, 60's OF
PPE - modified level D
Personnel - (On board R/V Cam Do) P. Connelly, J. Dilorenzo, Jeff Poidesko (OSE), Dion Lewis, chan (AECOM)
08:00 - OSE and AECOM gave H+S talks. Depart dock to head upriver to station 13B-0561
08:37 13B-0561 core #1
Depth of water = 5.7 feet
Penetration = 8 ft
Recovery = 7.7 ft. Keep
East ~~North~~ = 597549.19 Ft
North ~~East~~ = 735460.94 Ft (AC 9/30)
Distance off target = 7.9 ft
09:17 core #2
Water depth = 4.8 ft
Penetration = 9.5 ft
Recovery = 8.7 ft Keep
East = 597549.42 ft
North 735462.70 ft
Distance off target = 8.0 ft

D. Lewis 9-30-13

Lower Passaic River
SSP2

9/30/13
USEPA
P. Connelly 69

09:56 - First two grab sample attempts had insufficient recovery - Keep 3rd grab

Grab #3
Depth of water = 7.2 ft
East 597538.82 ft
North 735458.39 ft
Distance off target = 19.9 ft Keep
PID = 1.4 ppm (background 1.0 ppm)

10:50 - Deconed grab sampler and mobilized to 13B-0559. Since the grab sampler is already in place, AECOM will attempt the grab sample here before the core.

13B-0559
Grab #1
Depth of water = 12.0 ft
East 596739.95 ft
North 732540.33 ft
Distance off target = 8.4 ft Keep
PID = 0.0 ppm
11:35 - core #1
Depth of water = 11.8 ft
East 596739.95 ft

P. Connelly 9/30/13

Lower Passaic River
SSP2

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USACE
P. Connelly

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North 732540.33
Penetration = 8 ft
Recovery = 6 ft
Distance off target = 8.4 ft

Discard
<80%

* Tecon will not keep core #1 due to insufficient recovery. They will make another attempt.
core #2

Depth of water = 11.8 ft
East 596739.79 ft
North 732535.50 ft
Penetration = 10 ft
Recovery = 9 ft
Distance off target = 7.2 ft

Keep

12:50 - CamDu crew ~~continues~~ pc 9.30 will continue to 138-0559 and attempt to collect 2 more cores. PC gets ride back to CPC dock on core transport vessel.

13:05. Breaks for lunch

13:45 - PC enters CPC facility to observe core processing.

15:30 - PC offsite

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10-4-13

Lower Passaic River
SSP2
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10-1-13
USACE
P. Connelly

06:45 - P. Connelly onsite at CPG Facility. PC is informed by D. Lewis (AECOM) that the CanDo will not depart the dock today until 7:30 am ~~tis~~ due to the tide.

07:30 - PC boards R/V will Do

Personnel - P. Connelly (COM), D. Lewis, C. Hawkins (AECOM), J. DiLorenzo, J. Puiderki (OSI)

PPE - modified level D

Weather - sunny, 60/70's °F

07:50 - D. Lewis gives daily H+S briefing

07:55 - Depart dock aboard the R/V CanDo.

08:20 - Anchored at 13B-0572

08:35 13B-0572 ~~Loop~~ 10-1

Core #1

Water depth = 9.8 ft
East 596599.47 ft
North 731693.04 ft
Penetration 8.5 ft
Recovery 8.0 ft
Dist. off target = 10.9 ft

Loop

P Connelly 10-1-13

09:23 - Core #2

Water depth = 8.3 ft
East 596605.14 ft
North 731693.64 ft
Penetration = 7.0 ft
Recovery = 7.9 ft
Dist. off target = 5.9 ft

Discard *

* This core had only about 0.25 inch of black sediment on top, then all native material. AECOM will not keep and sample this core.

09:50 - Crew will attempt another core and a grab at 0572. PC departs boat aboard jon boat to go to CPG facility. PC will log all split sampler that will be shipped today and relay info to J. Rakowski (COM) who will be shipping the samples.

11:00 - Break for lunch

11:28 - Return to CPG dock to get a ride aboard jon boat to CanDo

11:36 - PC boards R/V CanDo at station 13B-0573. they are currently attempting

P Connelly 10-1-13

to collect the grab sample. No cores have been attempted yet. Two grab attempts have been made. They are currently performing the 3rd attempt.

11:37 - 13B-0573
Grab #3
Water depth = 16.6 ft Keep
E-W 596738.57 ft
North 733124.22
PID = 1.2 ppm (background 1.0 ppm)
Dist. from target = 19.4 ft

12:20 - Core #1
Water depth = ~~14~~ 15.5 ft PC 10-1
East 596727.50
North 733140.21
Penetration = 9.1 ft
Recovery = 9.7 ft Keep *
Dist. from target = 15.5 ft

*Note that there was only a few inches of dark sediment at top of core, then native material to bottom. AECOM will split the top 3 feet of core ~~for~~ PC 10-1 for processing and

Pete Connelly 10-1-17

discard the remainder as IDW.

12:45 - J. Rakowski is at CPG ~~work~~ PC 10-1 facility. He texts PC to request assistance in packing split samples for shipment. PC gets Jon back to head back to facility.

13:20 - J. Rakowski was not yet at facility but arrives now. PC and JR will pack EPA split sediment samples collected 9/26 and 9/27 into coolers, ~~and~~ PC 10-1

14:00 - Finished packing coolers. PC observing processing of cores occurring inside tent in warehouse.

15:30 - PC departs

06:45 - P. Connelly on site at CDM facility.
06:50 - observing D. Lewis calibrate MultiRAE
07:20 - Board R/V CanDu
Personnel - P. Connelly (CDM), D. Lewis, Chan Hawkins (AECOM), J. DiLorenzo, J. Puidenki (OSI)
PPE - modified level D
Weather - Sunny 60/70's °F
07:45 - Depart CDM dock aboard CanDu
07:50 - Begin anchoring at 13B-0574
08:22 -

13B-0574
core #1

water depth = 6.8 ft
East 597009.00
North 734270.12
Penetration = 9.5 ft (keep)*
Recovery = 8.4 ft
Dist. from target = 5.0 ft

* There is about 0.3 ft of red native material in the shoe of the core barrel. On the next core, core barrel will be advanced the full 10 feet in attempt per 10-2 to get native material in core liner.

P. Connelly 10-2-13

08:59 - core #2

water depth = 6.5 ft
East 597010.16 ft
North 734268.96 ft
Penetration = 10.0 ft (keep)*
Recovery = 8.9 ft
Dist. from target = 6.6 ft

* few inches of native in core

09:55 - core #3

water depth = ~~6.2 ft~~ per 10-2 6.1 ft
East 597013.27 ft
North 734268.78 ft
Penetration = 7.8 ft retrieved (keep)
Recovery = 6.7 ft
Dist. from target = 8.9 ft

10:29 - core #4

water depth = 5.6 ft
East 597014.62 ft
North 734269.36 ft
Penetration = 10.0 ft (keep)*
Recovery = 8.1 ft
Dist. from target = 9.7 ft

* Note that four cores were collected so that a duplicate EPA split could be collected.

P. Connelly 10-2-13

11:01 – Grab #1
Water depth = 5.1 ft
East 597013.22 ft
North 734270.72 ft
dist. from target = 8.0 ft
~~PID~~ = PC 10-2
No Recovery

11:05 – Grab #2
water depth = 5.1 ft
East 597016.29 ft
North 734268.81 ft
Dist. from target = 11.4 ft
PID = 0.7 ppm (0.6 ppm background)
Keep *

* NEcom gets ~~sed.~~ PC 10-2 some sediment from this grab for sampler, but ultimately requires another grab to get full volume requirement.

Grab #3
water depth = 5.9 ft
East 597018.99
North 734267.25
Dist from target = 14.5
Keep

11:40 – PC departs ConDu aboard jon boat to get lunch.
12:50 – PC back on board ConDU

P Connelly 10-2-13

They took lunch, lowered mast to get under bridge to next station, and raised mast after bridge. Currently, NEcom is decon-ing the grab sampler.

13:28 – Anchored on station 13B-
13:46 – 13B-05S7
PC 10-2
Core #1 Grab #1
Water depth = 11.7 ft
East 596091.14 ft
North 731131.35 ft
Dist from target = 6.9 ft
Keep
PC 10-2 Penetration =
PC 10-2 Recovery =
PID =

13:55 – Core #1
water depth = 11.1 ft
East 596089.53 ft
North 731127.81 ft
Dist. from target = 8.5 ft
Penetration = PC 10-2
Recovery =

14:00 – PC off ConDu to head back to CPG facility to observe facility activities

P Connelly 10-2-13

Lower Passaic River
SSP2
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10-2-13
USACE
P. Connelly

15:00 - PC logs existing split sampler awaiting shipment in the walk-in and puts together some bottleware sets.

15:15 - PC offsite

Lower Passaic River
SSP2

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USACE
8/ P. Connelly

06:20 - PC onsite at CPG facility.

06:30 - Board the R/V WellDu

06:35 - AECOM conducts H&S briefing

Personnel - Aboard ~~WellDu~~ PC10-3 CamDu - P. Connelly (CDM), J. DiLorenzo, J. Pudelski (OSI), D. Lewis, C. Hawkins (AECOM)

PPE - modified Level D

Weather - sunny, 60/70's °F

06:40 - Depart CPG dock

07:25 - Anchored at 13B-0571

13B-0571

07:35 Core #1

Water depth = 7.5 ft

East 596223.90 ft

North 730892.75 ft

Dist. from target = 19.1 ft

Penetration = 9.5 ft

Recovery = 9.5 ft

IDW Keep* PC 10-3

* In this core, ~~there~~ PC10-3 there was about 1-2 feet of overlying black sediment (i.e. non-native), then the remainder of the core was a coarse, multi-colored, ~~poorly~~ well PC 10-3 sorted sand. It may be native material

Photo log 10-3-13

but is unlike any previously seen native material, which is typically brown, red, fine sand and clay. AECOM wants to collect a 20 ft core at this station to determine if the clayey fine sand is deeper.

08:30 - Core #2
water depth = 7.3 ft
East 596226.39 ft
North 730890.10 ft
Dist. from target = 16.1 ft
Penetration = 15.2 ft
Recovery = 12.0 ft
TRW keep* 10-3

* Recovery only about 79%, but core is being kept, though only the first core will likely be processed. Drilled to 15 feet and saw a few feet of non-native black sediment underlain by the coarser multicolored, well sorted sand to bottom of core. ~~AECOM assumes that this sand is native.~~ pc 10-3 See note on next page

09:38 - Grab #2 (first grab failed)
water depth = 7.2 ft

Pat Connelly 10-3-13

East 596217.50 ft
North 730887.21 ft
Dist. from target = 24.7 ft
PID = 5.5 ppm

10:08 - Note that AECOM will not process either core collected today at 13B-0571. The first core (10') did not hit refusal and AECOM is uncertain if the sand is native. The 2nd core did not hit refusal but did not get 50% recovery. AECOM will return to station 13B-0571 on another date as the water level is currently too low to return today. pc 10-3

10:35 - Anchored on 13B-0558

13B-0558
grab #1
water depth = 14.6 ft
East 596307.51 ft keep
North 731545.78 ft
Dist. from target = 17.2 ft
PID = 0.0 ppm

Pat Connelly 10-3-13

Lower Passaic River
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P. Connelly

11:11 - Core #1
water depth = 13.9 ft
East 596309.50 ft
North 731552.61 ft
Dist. from target = 10.2 ft
Penetration = 9.8 ft
PC 10-3 Recovery = 10+ ft
* Sediment is coming out of top of core. It is unclear whether this represents the surface material or if is overpenetrated. Core will be discarded.

Discard

12:02 - Core #2
water depth = 12.7 ft
East 596310.71 ft
North 731545.75 ft
Dist. from target = 5.9 ft
Penetration = 8 ft
Recovery = 7.8 ft

12:25 - PC departs CanDo aboard the jon boat. Heads back to CPG dock to get lunch, observe core processing at the facility, and assist J. Rakowski with packing split samples.

Rob Chaky 10-3-13

Lower Passaic River
SSP2

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USACE
85 P. Connelly,

13:00 - PC at facility to log split cores collected today. A Duplicate and MS/MSD were collected today at station 13B-0574, collected 10-1-13. Duplicate on interval A. MS/MSD on duplicate interval C. See sample tracking log for full sample IDs.

13:30 - J. Rakowski onsite. PC assists him in packing split samples from 9/30/13 and 10/1/13.

15:06 - Finished packing samples and checking cocs. PC orients JR with site activities since he will be doing oversight tomorrow.

15:25 - PC and JR offsite

10-3-13

Lower Passaic River 10-4-13

86 SSP2 Vibracoring
PPE: Modified Level D
Weather: 45°F
personnel: JR (COM Smith), OSI, AECOM
objective: SSP2 sampling.
0640 JR arrives onsite
0700 ~~with Cando~~ 2.R boat is awaiting supplies.
0715 ~~Cando~~ Cando 2.R departs
0720 Cando arrives and boards supplies.
0747 Cando departs CPG boat ramp. Boat is heading to location # 571
0800 Arrive at location
0820 Anchor down at location
0840 water level collected
~~X~~ proposed X 596242
Y 730886
Actual X 596221
Y 730893
distance from proposed 21.1
water depth 9.2

J.R 10-4-13

Lower Passaic River 10-4-13

SSP2 Vibracoring

0847 Vibracore Starts
Penetration recovery of 12.4
↓ 14.9' to refusal 83.2% recovery
0955 13B-057-C4
water depth 8.15'
actual X 596220
Y 730883
distance from proposed location 22
Penetration 16.3
Recovery 13.2
percent recovered 81%
1055 Arrive at location
13B-0570-G1 for grab sample.
Attempt # 1 ~~to~~ Cobble 2.R no recovery 10-4-13
Attempt # 2 no recovery
Attempt # 3 minimal recovery
AECOM will try to collect ~~OR~~ use this for limited analyses.
Third River - from probing are they going to send a proposed location for approval.
Sample id 13B-0570-G3 core 3 AS collected for AVS-SEM

J.R 10-4-13

10-4-13 Lower Passaic River

~~86~~ SSP2 Vibracoring

1200 depart boat

1225 Arrive at facility to check in with field team leader and go over todays progress

1320 JR depart Site

10-4-13

Lower Passaic River
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10-7-13
USACE
P-Connelly

06:55 PC on site at CPG facility

07:10- Board R/V CamDu

Personel - P. Connelly (COM), D. Lewis, David Smith (AECOM), S. DiLorenzo, J. Puideski (OSI)

PPE - Modified level D

Weather - overcast, 60's °F, chance of t-storms in afternoon

07:35 - Depart CPG dock - D. Lewis gives H+S briefing.

08:30 - Anchored on 13B-0556

08:38 - 13B-0556

core #1

water depth = 7.8 ft

East 596294.89 ft

North 730324.43 ft

Dist. from target = 24.4 ft

Penetration = 9.5 ft (keep)

Recovery = 8.7 ft

core #2

09:09 water depth = 8.5 ft

East 596297.07

North 730322.90

Dist. from target = 21.9

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USACE
P. Connelly

Penetration = 9.5 ft (Keep)
Recovery = 9.2 ft

09:40 – Core #3
water depth = 5.9 ft
East = 596299.46 ft
North = 730320.53 ft
Dist. from target = 18.5 ft
Penetration = 9.5 ft (Keep)
Recovery = 8.7 ft

10:05 – Core #1
water depth = 9.3 ft
East 596298.16
North 730323.41 (Keep)
Dist. from target = 21.6
PID = 1.7 ppm (1.6 background)

11:00 – Back at CPG Dock. AECom and DSI decided to end on river operations today due to tornado warning and severe weather approaching.

11:30 – PC goes to CPG facility to observe core processing.

13:30 – PC observing decontamination process of core liners.

17:45 – PC off site

Patrick Connelly 10-7-13

Lower Passaic River
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10-8-13
USACE
P. Connelly

06:35 – PC onsite at CPG facility
06:50 – PC boards R/V Carol
Personnel – P. Connelly (USACE), D. Lewis, D. Smith (AECOM), J. DiLorenzo, J. Puidokas (DSI)
PPE – modified level D
Weather – sunny, 60's °F
07:10 – Depart CPG dock board R/V Carol
09:00 – anchored on 13B-511

09:03 – 13B-0511
water depth = 6.2 ft
East 590287.32 ft
North 712452.17 ft
Dist. from target = 11.4 ft
Penetration = 9.5 ft (Keep)
Recovery = 8.3 ft

09:42 – Core #2
water depth = 7.0 ft
East 590285.70 ft
North 712448.82 ft
Dist. from target = 9.8 ft
Penetration = 9.5 (IDW)
Recovery = 9.9

Patrick Connelly 10-8-13

Passaic River
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USACE
P. Connelly

*No native material in core

10:13 - Core #3
water depth = 7.2
East 550245.48
North 712443.10
dist from target = 4.3
Penetration = 8.0
Recovery = 7.3
Keep

* refusal at 8 feet

10:48 - grab #2
water depth = 7.1
East 550287.76
North 712443.23
Keep
Dist from target = 6.6
PID = 0.5 ppm (background = 0.6)

11:25 - Crew of ~~tug~~ CanDo will move on to next station. PC departs CanDo aboard jonboat to return to CPG dock.

12:00 - Arrive back at CPG dock. PC goes to get lunch.

12:45 - PC enters CPG facility. Lab crew is taking lunch break.

13:30 - J. Rakowski (COM) on site to

Pat Connelly 10-8-13

Passaic River
SSP2
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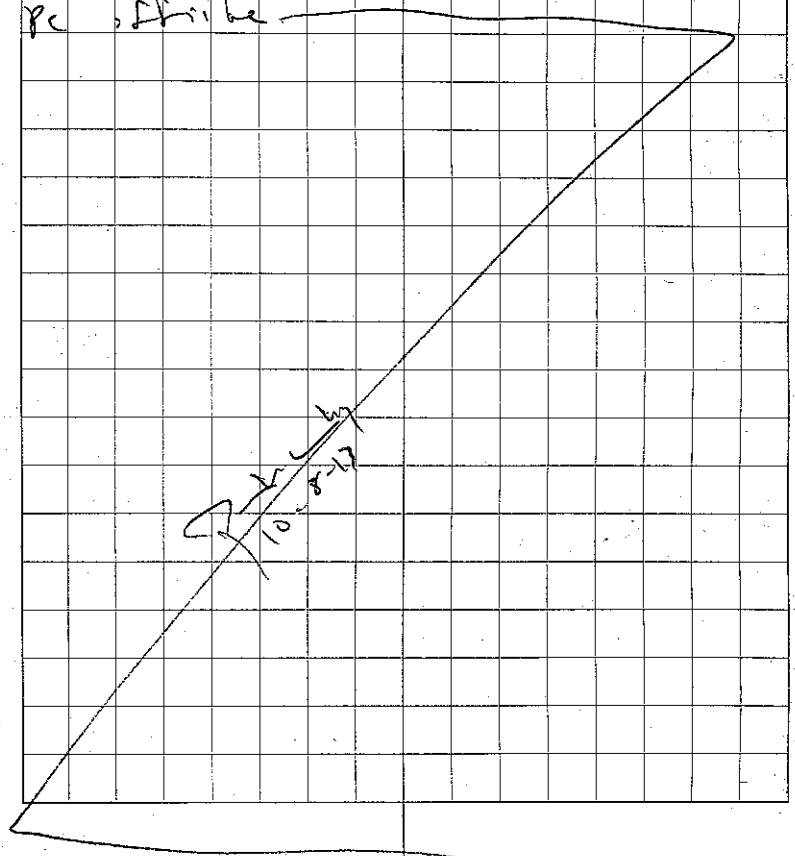
10-8-13
USACE
B. Connelly

pack and ship split sampler

13:40 - PC and JR begin packing split samples.

15:30 - PC has finished assisting packing samples with JR and has assembled several additional bottleware sets for future splits - PC departs



Passaic River
SSP2
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USACE
P. Connelly

06:45 - P. Connelly on site

07:00 - Board R/V CanDo at CPG dock

Personnel - P. Connelly (COM), D. Lewis, D. Smith (AECOM), J. DiLorenzo, J. Puidenki (OSI)

PPE - modified level D

Weather - partly cloudy 50/60's°F

07:20 - D. Lewis gives H+S briefing

07:30 - Depart CPG dock aboard R/V CanDo

09:00 - anchored on station 13B-0528. A core was collected here on 9/25/13 but did not recover native material. AECOM is trying again today using a 2.0 foot barrel.

13B-0528

09:13 - core #2

water depth = 10.3 Ft
East 592100.77 Ft
North 718841.14 Ft
Dist. from target = 2.5 Ft
Penetration = 17.2 Ft (IDW)
Recovery = 11.8 Ft

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USACE
P. Connelly

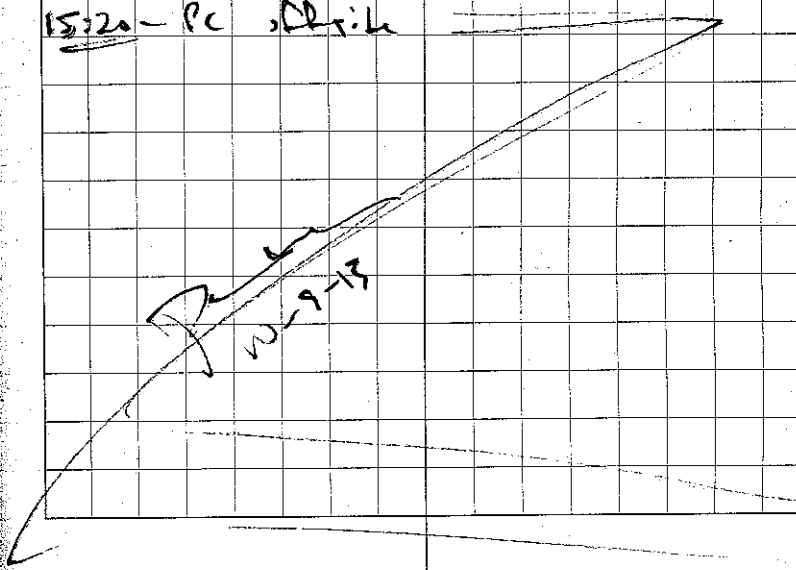
10:24 - core #3
water depth = 12.1 Ft
East 592102.32
North 718836.19
Dist. from target = 7.1 Ft (Keep)
Penetration = 12.0 ft refusal
Recovery = 11.6 Ft

11:00 - PC departs CanDu aboard jon boat to return to facility.

11:40 - Back at CPG dock. Lunch break

12:40 - PC enters CPG facility to observe core processing and log split samples collected today.

15:20 - PC departs



06:45 → SO arrives on Site at CPG facility. SO signs in and grabs life jacket along with logbook and QAPP.

07:10 → SO drives down to CPG dock and loads up equipment onto Candu vessel.

Weather → Over-cast rain ~ 58°F

PPE → Level D Modified

07:35 → AECOM Dean Lewis and Dave Smith hold health + safety meeting. Topics include: observing utility lines crossing water, slips, trips, falls, wearing proper PPE, and being aware of lightning.

07:55 → OSI ties off of dock and proceeds downriver. OSI crew members include: Jay

SO 10/10/13

DiLorenzo + Mason

08:05 → AECOM decons grab sampler and loads ice into icebox for samples

08:30 → OSI raises boom and sets up core barrell and all related equipment.

09:20 → Anchor at location 13B-0516-C2 and assemble core.

N → 714858.36'

E → 591540.82'

Total Water Depth → 14'

Δ → 8.3' from proposed

09:30 → Begin coring down at 13B-0516. This is the second core at this location. First core was attempted yesterday w/ 10' barrel but with an initial Refusal at 13 ~~8~~' (Recovery). Therefore, the 20' core barrell was used today to go deeper and hopefully encounter native material.

09:50 → ~~Anchor~~ SO 10/10/13 Pull anchor

SO 10/10/13

and find deeper water to extract core from barrel.
10:25 → OSI cuts Core, caps and places into cooler. 10/10/13
10:45 → OSI anchors bck onto location 13B-056 for third and final attempt.
11:00 → Begin coring 13B-056
Water Depth → 17.1'
N → 714850.87'
E → 591543.67'
Δ → 0.4'
Recover → 12.06'
*AECOM will cut into (3) 4' cores.
11:25 → AECOM places all cores into icebox. OSI assembles new core for next location.
11:45 → Take brent for lnch
12:00 → Anchor onto location 13B-0518.
N → 715063.65'

30 10/10/13

E → 591764.36'
Total Water Depth → 22.6'
Δ → 0.2' off from target.
12:15 → Start coring at 13B-0518.
*Recovery is ~
12:45 → SO is taken back to CPG facility to oversee processing and assist JR in sample shipment.
13:20 → SO arrives back at CPG facility. JR is present and organizing samples.
17:00 → SO & JR depart CPG facility. JR will drop samples off at FedEx

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09:45 → SO arrives at CPG facility and signs in. SO oversees processing/test and speaks with Helen Jones regarding a transfer vessel to take over to the Candu. Helen informs SO that the transfer vessel is currently conducting/measuring water levels along the bridges spanning over the Passaic.

10:30 → SO heads over to CPG dock and hops on vessel to Candu.

10:50 → SO boards the Candu and observes the core (13B-0541-C1) being cut and placed into icebox.

Location 13B-0541-C1
N → 723051.50'
E → 592546.53'
Total Water Depth → 11'
Penetration → 8.9'

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Δ → 8.4 ; % 81
Recovery → 7.3' (reduced, red and orange)
11:18 → OSI collects second core from 13B-0541-C1
N → 723050.98'
E → 592540.61'
Δ → 7'
Recovery → 3.6'
Total Water Depth → 12.9'
Penetration → 8.0'
% → 120%
11:50 → OSI prepares grab sampler at 13B-0541-G1
N → 723053.24'
E → 592539.75'
Total Water Depth → 12.2'
Δ → 4.9'
* Successful Grab is taken at location. PID is used to
11:55 → Measure headspace
VOC → 0ppm; H2S → 0ppm;
CO → 0ppm; LEL → 0ppm
of 13B-0541-G2
11:55 → Collect the 2oz

SO 10/11/13

jar for AUS/SEM. AECOM then proceeds to collect (2) 1-gallon buckets for the remaining analyses. The grab is considered the (A) interval → 0 to 6 inches.

12:10 → Take lunch break.

12:35 → QSI navigates to next location while AECOM deploys grab sampler.

12:45 → QSI navigates to location 13B-0542 and anchors onto location.

13:00 → Start grab location 13B-0542-C2. Lower grab into water.

N → 723637.63'

E → 593412.17'

Δ → 10.1'

* Sediment was collected for AUS/SEM analysis in a 2oz jar and (2) 1-gallon buckets for remaining analyses.

10/11/13

13:20 → AECOM transfer vessel picks up cores collected from first location 13B-0541 to take back to CPG facility.

13:35 → QSI starts coring at 13B-0542-C1:

N → 723636.01'

E → 593410.01'

Total Water Depth → 6.5'

Δ → 12.6'

Penetration → Over recovery (9.5')

Recovery → Over recovery (+10')

* QSI will try a second attempt at 13B-0542-C2

N → 723634.82'

E → 593407.75'

Total Water Depth → 6.6'

Δ → 15.3'

Penetration → 9.0'

Recovery → 8.3'

* Reddish clay observed towards bottom of core.

14:55 → Start third core at 13B-0542-C3:

N → 723638.59

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E → 593415.93'
Tdl Water Depth → 6.7'
Δ → 7.7'
Penetration → 6.9'
Recovery → 7.6'
15:10 → AECOM completes cutting core into (2) 3.5' sections. PSI unhooks off-shore and pulls anchors. PSI/AECOM are finished for the day and begin trek back to CPG facility.
16:30 → Arrive/Inst at CPG facility and oversee processing and discuss samples collected today.
16:35 → Helen Jones informs SO that a list of all locations completed will be sent to him/her email, SO passes processing text and reports all samples processed today.

SO — 10/11/13

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10/10 → Processed
1°-0536-C1 (81%)
IDW-0536-C2 (64%)
2°-0536-C3 (114%)
0536-G1 (grab)
1°-0516-C2 (101%)
2°-0516-C3 (102%)
0516-G2
IDW-0535-C1 (78%) IDW
0535-C2 (90%)
0535-C3 (109%)
0535-G1 (G-Jab only) - CPG drop
IDW-0518-C1 (64%)
IDW-0518-C2 (61%)
IDW-0518-C3 (62%)
0518-G1
10/9 Processed
1°-0525-C1 (93%)
2°-0525-C2 (84%)
0525-G1

10/11/13

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USACE

10/11 → Collected
1DW-0517-C1 (37%) 1DW (no native) (no refusal)
1DW-0519-C1 (91%) 1DW (no native) (no refusal)
→ will revisit both stations w/
20' core barrel

0541-C1 (82%)
0541-C2 (80%)
0541-G1

1DW-0545-C1 (59%)
1DW-0545-C2 (56%)
1DW-0545-C3 (68%)
→ No recovery on my grab attempts

0542-G1
1DW-0542-C1 (over recovered)
1°-0542-C2 (92%)
2°-0542-C3 (110%)

1DW-0543-C1 (78%) 1DW
1DW-0543-C2 (57%) 1DW
1DW-0543-C3 (69%) 1DW
0543-G1 (grab only, full suite)
17:00 → Depart facility
en route home. Benjamin
Hammond will take over on
Monday.

[signature] 10/11/13

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USACE

0640 Benjamin Hammond on site at field facility in Rutherford, NJ
- met Dave and Devin (AECOM) prior to leaving for dock, signed float plan
- obtained field notebook relinquished by S. O'Hare.

0720 at CPG dock. Health and safety talk on Condo vessel.
personnel: B. Hammond (CDM Smith)
D. Lewis, D. Smith (AECOM) J. Dibiccari
J. Pacidesk (OSI)
PPE: mod level D
weather: Sun, 58°F

0810 Depart dock en route to 1st location

0820 Observed decon of pneumatic grab sampler

0900 took DTB measurements near shore under Rte 3 bridge and near rail bridge further south - both are too shallow right now

0918 arrive at 13B-0554
- Had to clear some trees from shore

[signature] 10/14/13

location: 13B-0554-C1
water depth: 3.8'
N: 728538.47
E: 597076.25
Δ: 3.2'
time: 9:43
penetration: 9.5'
recovery: 9' → ~95%
Keep

location: 13B-0554-C2
water depth: 4.1'
N: 728536.34
E: 597073.42
Δ: 4.6
time: 10:28
penetration: 9'
recovery: 6.3' → 70%
discard - poor recovery

location: 13B-0554-C3
water depth: 4.6'
N: 728532.25
E: 597069.68
Δ: 9.0
time: 1140
penetration: 9.0'
recovery: 7.6' → 84%
discard - non-native mat'l

10/14/13

- switching to 20' casing to try and advance into native material
- collecting grab sample first

location: 13B-0554-G1
water depth: 5.1
N: 728533.68
E: 597068.91
Δ: 9.3
time: 12:34
discarded

- recovered mostly water

location: 13B-0554-G2
depth: 5.1
N: 728531.36
E: 597066.93
Δ: 11.9
time: 12:39
BH
discarded
Keep
good recovery

- poor recovery again
- 20 foot core

location: 13B-0554-C4
depth: 5.8'
N: 728529.15
E: 597066.41
Δ: 13.3
time: 12:51

BH

10/14/13

Lower Passaic River — 10/14/13 — USACE

SSPZ

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penetration: 18'

recovery: 14.7' → 81.7%

Keep

1400 – They will be heading to 13B-0552 or 13B-0553 next. It probably depends on water levels whether they're able to core.

1430 BH off river to return to field facility and oversee sample processing.

10/14 BH processed collected today – see note at end

0531 – C1 @ 0848 – 87% (2.6')

0531 – C2 @ 0921 – 105% (7.9', 4' native) QC

0531 – C3 @ 1008 – 114% (9.6', in native)

0531 – B1 @ 1109

1° – 0554 – C1 @ 0943 – 95% (9')

1DW – 0554 – C2 @ 1030 – 70% (1DW)

1DW – 0554 – C3 @ 1142 – no ref. or native – 1DW

2° – 0554 – C4 @ 1255 – 81% (14.7', native @ 5.5')

2DW – 0554 – C1 @ 1235 – poor recovery – 2DW

0554 – C2 @ 1240 – grab

0509 – C1 @ 1154 – 85% (4.6')

0509 – C2 @ 1335 – 83% (5.3')

no recovery on grabs

10/14/13

Lower Passaic River — 10/14/13 — USACE

SSPZ

111

1615 AECOM are finished processing samples for today.

– observed AECOM decontaminating BH equipment in preparation for tomorrow's activities.

* per Helen, all of the 10/11 samples and none of the 10/14 samples were processed today. 10/14 samples will be processed tomorrow.

1700 BH to leave field notebook at CPG facility for Sean O'Hare

– BH off site

10/14/2013

Lower Passaic River
SSP2
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10/15/13
USACE

06:55 → SO arrives at CPG facility and picks up QAPP & log book

07:08 → SO arrives at ~~CPG facility~~ boat ramp and boards Candu operated by Jay DiLorenzo.

Weather → Clear skies ~68°F

PPE → Level D Modified w/ life vest

07:10 → AECOM Dean Lewis holds health & safety meeting. Topics of concern include: staying aware at all times, wearing proper PPE, and pinch points.

07:30 → Depart CPG dock en route down river to start coring at location

08:00 → SO depends vessel

11:30 →

08:57 → OSI collects 13B-

SO 10/15/13

Lower Passaic River
SSP2
10/15/13
USACE
113

N → 721038.55'
E → 592300.03'
Δ → 18.2'
Total Water Depth → 8'
Penetration → 9.5'
Recovery → 9.5'
Sample is discarded due to not encountering native mud
10:00 → OSI collects second core
N → 721035.91'
E → 592301.03'
Δ → 15.7'
Total Water Depth → 6.7'
Penetration → 19'
Recovery → 20'
Due to sediment coming up out of deck valve, (Cover - recovery), sample needs to be discarded
11:20 → OSI collects sample third core
N → 721035.58'
E → 592298.27'

SO 10/15/13

114

Δ → 18.2'
Total Water Depth → 5.8'
Penetration → 15'
Recovery → 16.2'
* Red/native sand encountered near bottom
13:02 → DSI names 133-0540-C4
N → 721028.35'
E → 592295.43'
Δ → 19.2'
Total Water Depth → 4.2'
Penetration → 15.5'
Recovery → 16.3'
* Encounter native material.
* 09:23 → DSI attempted first grab but encountered over recover. Δ = 17.1' water depth
09:25 → Attempted 2nd grab was successful. Tan water depth is 7.3'
13:25 → DSI anchors to middle of river and waits for tide to come in before

SO ← 10/15/13

115

evaluating core just collected
14:15 → Open up core barrel and cut into sections, cap, and store in ice box
15:00 → Depart en route to CPG dock
* 176 locations have been sampled so far. There are 12 more locations which remain in the program. Hale Jones suspects that the sampling program will go into a 5th week.
10/14 → Processed
✓ 2° 0531-C1 @ 0848 - 87%
✓ 1° 0531-C2 @ 0921 - 105%
✓ 3° 0531-C3 @ 1008 - 114%
✓ 0531-G1 @ 1109 → grab
→ CPG MS/MSD-"A" and "B"
✓ 1° - 0554-C1 @ 0945 - 95%
1DW-0554-C2 @ 1030 - 70%
1DW-0554-C3 @ 1142 no recovery on note
✓ 2° - 0554-C4 @ 1255 - 81%
1DW-0554-G1 @ 1235 poor recovery
✓ 0554-G2 @ 12:40 → grab

SO ← 10/15/13

Lower Passaic River
SSP2
10/15/13
USACE

0576-G1 (116)
0509-C1 @ 1154 - 85%
0509-C2 @ 13:35 - 83%
No recovery on grabs
10/15 → Samples collected
IDW-0576-C1 @ 0813 - 68%
IDW-0576-C2 @ 0844 - 69%
IDW-0576-C3 @ 0911 - 37%
Grab only (0576-G3) @ 09:40 (Liquid Fuel Safe)
IDW-0540-C1 (100%) no refusal native
0540-G2 (G1 over-recovery)
IDW-0540-C2 @ 10:05 (over-recovery)
0540-C3 @ 11:05 108%
0540-C4 @ 13:05 105%
IDW-0538-C1 @ 11:10 - 109%
2°-0538-C2 @ 13:04 - 109%
1°-0538-C3 @ 13:55 - 97%
0538-G1 @ 14:56 grab
16:45 → SO departs site en route home.

10/15/13

Lower Passaic River
SSP2
10/16/13
USACE

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07:25 → SO arrives at CPG facility and records CDM Smith split collected yesterday stored in walk-in refrigerator. Samples:
13B-0531-C2CS @ 09:21 on 10/14/13 for Pesticides, PAH, PCB, PCDD/PCDF, Hg, TOC, Met/SVOC.
Weather → Over-cast ~68°F
PPE → Level D Modified w/ life vest
07:35 → AECOM holds health & safety meeting. Topics of concern include; slips/trips/falls; heavy objects swinging; pinch points; & wearing proper PPE.
07:45 → DSI departs from CPG dock en route to first location 13B-0539
08:30 → DSI targets sample location and ties a 3-way onto

SO 10/16/13

shore/river.
AECOM decons grab sampler along ride down river to location 13B-0539
09:35 → Advance 1st 13B-0539-C1 (over-recovery now)
N → 721015.04'
E → 592053.62'
Total Water Depth → 6.5'
Δ → 9'
Penetration → 9.8'
Recovery → 10' (over-recovery)
10:05 → Advance 2nd core 13B-059-C2
N → 721018.28'
E → 592051.14'
Total Water Depth → 5.6'
Δ → 6.6'
Penetration → 8.5'
Recovery → 8.1'
10:35 → Advance 3rd core 13B-059-C3
N → 721020.44'
E → 592052.73'

SOW 10/16/13

Δ → 3.9' from proposed
Total Water Depth → 5.9'
Penetration → 9'
Recovery → 9'
10:55 → QSI collects grab sample 13B-059-G1.
N → 721021.33'
E → 592055.04
Δ → 4.9'
Total Water Depth → 11.5'
Penetration → N/A 3 Grab Grab
Recovery → N/A 3
11:05 → Collect AVS/SEM sample in a 2 oz jar along with (2) 1-gallon buckets for additional analyses for the "Δ" interval (0 to 6 inches)
Headspace Readings are:
CO → 0 ppm; H2S → 0 ppm,
LEL → 0 ppm; VOC → 1.0 ppm
Background VOC → 1.5 ppm
Sediment consists of a mix of brown silt from 0 to 2 inches. Coarse

SOW 10/16/13

black silt from 2 sides down.
11:40 → Finish collecting samples and navigate to location 13B-0544
12:10 → Anchor onto location 13B-0544 and deploy grab sampler
12:40 → Break for lunch and transfer cores onto transport vessel.
13:20 → Lower grab sampler and collect 13B-0544-G1
N → 723853.04'
E → 594546.99'
Δ → 8.1'
Tidal Water Depth → 11.4'
Penetration → NA
Recovery → NA
* 1 8oz jar for AVS/SEM analysis is collected along with (2) 1-gallon buckets for any additional analyses from the "A" interval.
See sample summary on following:

10/16/13

10/15 → Processed
1DW-0540-C1 @ 0900 - no recovery
0540-G2 @ 0926 (G1 over recovery)
1DW-0540-C2 @ 1005 (core recovery)
2° 0540-C3 @ 1105
1° 0540-C4 @ 1305
1DW-0538-C1 @ 1110
2°-0538-C2 @ 1315
1°-0538-C3 @ 1355
0538-G1 @ 1456 - grab
0553 - cores → Processed
10/16 - 2 Collected
2° 0553-C1 @ 0841
1° 0553-C2 @ 0917
1DW-0553-C3 @ 1027 - 100%
0553-G2 @ 1203 grab
1DW-0539-C1 @ 0935 - over recovery
0539-C2 @ 1008 - 95%
0539-C3 @ 1040 - 100%
0539-G2 @ 1105
1DW-0537-C1 @ 1235 - 137%
2°-0537-C2 @ 1310 - 109%
1°-0537-C3 @ 1427 - 0%
0537-G2 @ 1538 (poor recovery G1)

10/16/13

Lower Passaic River
SSP2

10/16/13
SSP2

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0544-G1 @ 13:25

2° 0544-C1 @ 14:00 (8 1/4)

3° 0544-C2 @ 14:42 (9 1/2)

17:15 → Depart CPG Facility

10/16/13

Lower Passaic River
SSP2

10/17/13
USACE

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07:40 → SQ arrives at CPG dock and boards vessel.

* Jay DiLorenzo of OSI is present along with Joe of OSI and AECOM personnel Dan Lewis / Dave Smith.

Dan Lewis held health & safety meeting. Topics of concern include tripping hazards, pinch points, staying aware, and wearing PPE.

Weather → Overcast ~70°F

PPE → Level D Modified w/ life vest.

09:00 → Start advancing at 13B-0549.

N → 725162.77'

E → 596216.35'

Tot'l Water Depth → 6.4'

Δ → 19.4' from target

Penetration → 3.8'

Recovery → 2.8'

* Core was discarded due to poor recovery. Substrate

SQ 2 10/17/13

consisted of medium coarse grey sand.
* OSI will attempt second core at this location.
09:25 → OSI attempts second core 13B-0549-C2
N → 725180.57'
E → 596219.25'
Total Water Depth → 6.4'
Δ → 1.7' from target location
Penetration → 3.2' (Refusal)
Recovery → 3.5' (R
10:10 → OSI advances third core 13B-0549-C3
N → 725178.66'
E → 596222.85'
Total Water Depth → 5.5'
Δ → 15.3' off from target
Penetration → 3.3'
Recovery → 3.4'
* Red clay (native material) was observed at the very bottom of the core. A layer of gravel was located just above native material

SO 10/17/13

10:50 → OSI lowers grab sampler at location 13B-0549-G1 and collects sediment.
N → 725177.55'
E → 596225.78'
Total Water Depth → 4.6'
Δ → 15.1' from target
Penetration → N/A
Recovery → N/A
Substrate consists of 0.3' of moist brown silt underlain by coarse material.
* AECOM collects (2) - 1 gallon buckets filled w/ sediment and 1 2oz jar for AVS/SEM analysis.
11:15 → Navigate to next location 13B-0552
11:35 → Deck grab sampler
11:45 → Tie up to shore and begin to settle on location.
11:59 → Start to advance grab at 13B-0552-G1
Over-recovery.
12:03 → Advance second core

SO 10/17/13

13B-0552-G2
N → 727583.12'
E → 596924.35'
Δ → 14' from target loc
Total Water Depth → 15.1'
Penetration → N/A
Recovery → N/A
Substrate consists of silt almost to top of bucket with harder more compact sand at bottom. There is a good interface.
13:30 → Start first core at
13B-0552-C1
N → 727586.16'
E → 596920.86'
Δ → 10' from target loc
Total Water Depth → 13.1'
Penetration → 5.8'
Recovery → 6.1'
* Red fine sandy clay present
14:02 → Start second core
13B-0552-C2
N → 727587.85'
E → 596919.31'

BC 10/17/13

Δ → 8' from target
Total Water Depth → 12.4'
Penetration → 6'
Recovery → 6.5'
14:57 → Advance 3rd core
13B-0552-C3
N → 727590.64'
E → 596917.09'
Δ → 5.3' from target loc
Total Water Depth → 11.3'
Penetration → 4.9'
Recovery → 4.6'
15:15 → SO two transfer vessel back to CPG dock and will oversee processing

Sample Summary

10/16 → Processed Samples:
1DW-0539-C1 (over recovery)
2* 0539-C2 (95%)
1* 0539-C3 (100%) Dup of 1
0539-G2 → good

1DW-0537-C1 (134%) IDW
2*-0537-C2 (109%)
1*-0537-C3 (92%)

BC 10/17/13

0537-G2 (poor recovery vs G1)
0544-G1
2°-0544-C1 (89%)
1°-0544-C2 (98%)
10/17 → Samples collected
2°-0575-C1 (85%)
IDW-0575-C2 (49%)
IDW-0575-C3 (61%)
1°-0575-C4 (95%)
0575-G1
IDW-0549-C1 (73%)
2°-0549-C2 (109%)
1°-0549-C3 (103%)
0549-G1 (grab)
0552-C1 (105%)
0552-C2 (108%)
0552-C3 ✓
0552-G1

10/17/13

07:45 → SO arrives at OPG facility / dock. SO hops onto Candu and
Weather → Clear skies ~70°F
PPE → Level D Modified with life vests.
07:55 → OSI heads down river to first and only location for the day → BB-0548
* AECOM held health & safety meeting. Topics of concern include: wearing proper PPE; slips/trips/falls; pinch points.
09:00 → Begin grumeing at BB-0548-C1 (acdm
N → 724350.21'
E → 595605.79'
Total Water Depth → 4.7'
Δ → 11' from target
Penetration → 8.8'
Recovery → 8.8'
* Refusal. Brown peaty silt w clay in bottom.

SO 10/18/13

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09:50 → Start second core
13B-0548-C2
N → 724355.06'
E → 595608.95'
Δ → 5.2'
Total Water Depth → 4.3'
Penetration → 8.7'
Recovery → 8.5'
* Substrate consists of: refusal, brown peaty silt & clay on bottom
10:25 → Advance 3rd core
13B-0548-C3
N → 724357.17'
E → 595609.86'
Δ → 3' from target loc
Total Water Depth → 3.9'
Penetration → 8.8'
Recovery → 8.4'
Substrate consists of brown, peaty silt & clay in bottom (refusal)
10:45 → Collect grab sample
13B-0548-G1
N → 724343.26'
E → 595605.73'

SO 10/18/13

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Δ → 17.2' from target
Total Water Depth → 4.1
Penetration → N/A } Sand Grab
Recovery → N/A }
* Substrate consists of brownish silt w/ sand.
11:30 → Head back to CPG dock.
11:45 → Arrive back at CPG dock and transfer samples back to CPG facility
12:30 → Break for lunch. AECOM collects weekly equipment blnk off of grab sampler and core catcher/liner for all associated analyses.
14:00 → SO signs out of CPG facility and departs site en route to warehouse to drop off samples.
10/17
13B-0577
13B-0548
10/18/13 → Processed 550 and 575

SO 10/18/13

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SSP2
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USACE

07:35 → SO arrives at CPG dock. Jeff Pydeski of OSI will drive SO to the Condo.
Weather → Level D Modified w/ life vest
PPE → See above "weather"
Weather → Clear skies ~ 70°F
* AECOM held health & safety meeting. Topics of concern included: slips/trips/falls; wearing proper PPE; & staying aware at all times.
08:20 → Transfer vessel arrives at the Condo. SO boards Condo. AECOM staff include: Helen Jones, Dean Lewis, & Dave Smith. OSI includes Jay DiLorenzo & Morgan Barrett.
08:40 → OSI advances first core at 13B-0517

SO 10/21/13

Lower Passaic River
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Total Water Depth → 19.4'
N → 715010.17'
E → 591733.66'
Δ → 4.9' from target
Penetration → 20'
Recovery → 11.7'
* Red sand throughout. Sample discarded due to poor recovery and since there was no transitional zone encountered. Only red native sand
09:30 → Assemble new liner in core barrell
10:10 → OSI advances second core for today at 13B-0517-C3
N → 714999.38'
E → 591786.35'
Total Water Depth → 20.2'
Δ → 8.6' from target
Penetration → 12.0'
Recovery → 7.4'
* Red brown sand throughout sample discarded
11:05 → OSI advances third

SO 10/21/13

core for the day. See details below: 13B-0517-C1
N → 714999.76'
E → 591723.74'
Δ → 9.6' from target
Total Water Depth → 21.5'
Penetration → 12.9'
Recovery → 7.9'
* Native material is not present and OSI bit refusal. OSI will attempt one final core 13B-0514-C5
N → 715001.58'
E → 591727.54'
Δ → 5.6' from tc
Total Water Depth → 20.8'
Penetration → 20'
Recovery → 11.5'
Red/brown sand observed, sample discarded
2:30 → Attempt to grab sample 13B-0517-G1
N → 715002.03'
E → 591731.50'
Δ → 4

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Total Water Depth → 19.9'
Penetration → N/A
Recovery → N/A
12:45 → Attempt second grab 13B-0517-G2
N → 714997.82'
E → 591734.56'
Δ → 9'
Total Water Depth → 19.9'
Penetration → N/A
Recovery → N/A
* Second grab was successful. Substrate consists of: brown medium to coarse sand with cobble-size stones. No evidence of DNAPL
13:30 → Break for lunch and navigate to next location 13B-0519. This location was originally attempted w/ a 10' barrel and will be cored today with a 20' barrel today
14:30 → Decon grab sampler and get ready for 13B-0519
15:00 → Collect grab

SO 10/21/13

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USACE

Sample 13B-0519-G1
N → 715154.68'
E → 591716.63'
Δ → 4.5'
Total Water Depth → 16.1'
Penetration → N/A
Recovery → N/A
AECOM collects AM/SE sample day with (2) full suite grab samples. No exceedances were detected using PID
15:20 → Depart back to CP6 facility for unload samples and finish for the day
16:15 → Arrive back at CP6 dock and unload supplies.
16:30 → Arrive back at CP6 facility.
Samples Processed include:
2 cores / 1 grab from 548
2 cores / 1 grab from 549

10/21/13

Lower Passaic River
SSP 2

10-22-2013

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PPE: Modified Level D
Weather: 50° farenheit
Personnel: JR (CDM Smith), AECom, OSI
Objective: SSP2 Coring
0640 JR arrives onsite
0725 Candu departs CP6 facility
0805 Arrive at location and setup equipment
0915 Start vibracoring on 13B-0519-C2
X 591722
Y 715161
Water depth 18.3'
Distance from proposed location 6'
98% recovery 17.6' out of 20'
* most of the sediment is not native.
1020 13B-0519-C3 start vibracore
75% was recovered and dumped back into water
1145 13B-0519-C4 start vibracore
Refusal at 15.5'
1155 Sediment slipped out of liner core while disassembling shoe.

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SSP2 J. Nakawa 138

1225 13B-0519-C5 Start
Vibracore
Recovery 11'
Refusal 12.4'
Water depth 19.6'
Recovery 88%
* Core 5 is successful, Core 2 may be successful waiting on final determination

1325 13B-0519-C6 start
Vibracore
13.5' Recovery
20.4 Penetration
66.7% Recovery
This core will not be used

1355 Sediment is washed out of liners into River
* Update Cores 2*5 will from 13B-0519 will be used for processing.

1405 Prepare boat to sail back to CPG boat ramp

1445 head back to CPG ramp

J.N 10-22-13

Lower Passaic River 10-22-13

SSP2 J. Nakawa 139

1540 arrive at CPG dock

1555 depart dock and arrive at CPG facility

Daily Summary
13B-0519-C2 * C5 Cores were successfully collected
Samples processed
13B-0517-G2
Currently processing 13B-0519-G1
1615 JN2 departs site

J.N 10-22-13

07:20 -> Sean O'Hare (SO) arrives on Site and brings supplies back onto Cando vessel.
Weather -> Over-cast, cool ~58°F
PPE -> Level D Modified w/ life vest
07:35 -> Depart CPG dock en route to location
08:30 -> ~~AECO~~ QSI anchors at ~RM10.2 to allow AECOM to collect a full suite of analyses on both the liner and grab sampler (equipment blank)
10:05 -> AECOM completes collection of field/equipment blanks and navigates to a location which needs to be reattempted using a 20' barrel
11:00 -> QSI uses a 3-way anchor and ties off to

shore and hold on location
13B-0523-C3
N -> 716643.58'
E -> 592116.29'
Δ -> 7.7' away from target
Total Water Depth -> 6.8'
Penetration -> 0.5'
Recovery -> 0'
Comments -> Refusal due to rocks
11:30 -> Push off a bit from target location and make another attempt: 13B-0523-C1
N -> 716640.18'
E -> 592125.30'
Δ -> 16.3'
Total Water Depth -> 8'
Penetration -> 20'
Recovery -> 13.4'
Comments -> Red silty sand on bottom. Sample discarded due to poor recovery (<80%)
12:15 -> Dump sediment cores and decon. For land
13:00 -> Start advancing

at 13B-0523-C5
N → 716635.01'
E → 592132.75'
Δ → 24.9' from target locatn
Penetratin → 18'
Recovery → 10.6'
Total Wate Depth → 8'
Comments → Red sand/silt w/ bottom. Sample is discarded due to poor recovery.
14:12 → Advance 6th core at 13B-0523-C6
N → 716623.46'
E → 592124.48'
Total Water Depth → 5.8'
Δ → 03.4' from target loc
Penetratin → 20'
Recovery → 15'
Comments → 8' of red sand/silt. Sample discarded due to poor recovery.
16:12 → Collect grab sample 13B-0523-G1 which is unsuccessful due to over-recovery

SG 10/23/13

N → 716648.56'
E → 592132.69'
Total Water Depth → 4.5'
Δ → 24.9'
Penetratin → NA
Recovery → NA
Comments → Sample discarded due to over-recovery
16:15 → Attempt 2nd grab 13B-0523-G2
N → 716635.37'
E → 592126.46'
Total Wate Depth → 4.5'
Δ → 18.3'
Penetratin → NA
Recovery → NA
Comments: Successful Grab Sample consists of brown silt VOC detections are 0.9ppm collect AVS/SEM sample: 2 1-gallon buckets and 1 [illegible]
Samples processed: 13B-0519
17:45 → SO departs Site en route home

SG 10/23/13

Lower Passaic River
SSP2

10/24/13
USACE

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07:00 → SO arrives on Site and loads supplies onto the Cmdr vessel
Weather → Clear skies, ~50°F
PPE → Level D Modified w/ lifevest
07:20 → Depart CPG dock en route to location 13B-0578
*ΔECOM holds health & safety meeting. Topics of concern include weather, proper PPE; slips/trips/falls
08:00 → Anchor onto location.
08:20 → Advance 10' barrel into sediment at 13B-0578-H-C1
N → 723921.14'; E → 595256.91'
Δ → 3.8' from target; Water Depth → 10'
Penetration → 9.5'; Recovery → 9.1'; Sl...
09:15 → Start coring 13B-0578-H...
N → 723916.08'; E → 595254.90'
Δ → 2.5' from target loc; Water Depth → 10'
Penetration → 10' Recovery → 8.2'
No native red silty clay present. However this high resolution only needs the top 3 feet.

10/24/13

Lower Passaic River
SSP2

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USACE

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10:30 → Lower grab sampler and collect 13B-0578-G1. Grab is unsuccessful. Second grab is successful 13B-0578-H-G2:
N → 723909.8'; E → 595284.33'
Δ → 3.8' from target; Water Depth → 12.3'
Substrate consists of brown silt and PID detects soil/sediment at 0-5ppm.
ΔVS/SEM sample & full suite is collected.
HPSD → Set up at low resolution Core station 13B-0578-C1
N → 723931.41'; E → 595278.95'
Δ → 1.9' from target loc; Water Depth 11.6'
Core → Over-recovery; Must make 2nd attempt
13B-0578-C2 → Poor recovery
13B-0578-C3 → Successful Penetration → 9.6' Recovery → 9.6'
13B-0578-C4 → Successful Penetration → 9.6' Recovery → 9.6'
13B-0578-C5 → Successful Penetration → 9.6' Recovery → 9.6'
16:15 → Arrive back at CPG Facility and vessel processing and send out daily summary report.
8:15 → Depart CPG facility en route dock time.

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09:15 → SO arrives at CPG dock and loads supplies onto vessel.
Weather → Partly cloudy ~55°F
PPE → Level D Modified w/ life vest
09:25 → Depart CPG dock en route to location 13B-0578 and hold health & safety meeting. Topics discussed include: slips/trips/falls, staying aware at all times, & wearing proper PPE.
10:05 → Arrive at location 13B-0578 and will core down to native material for high resolution. 0578 was sampled again since AECOM decided the top 3 ft was not sufficient.
13B-0578-C3:
N → 723924.13'; E → 595272.60'
Δ → 10.41' from target location
Water Depth → 12.5'
Penetration → 9.5'; Recovery → 9.2'
* Sample is native with red silty sand
11:25 → Advance 13B-0578-C4

N → 723938.29'; E → 595271.98'
Δ → 9' from target location
Water Depth → 14'
Penetration → 9.8'; Recovery → 9.0'
Sample is native with red sandy silt
12:05 → Transfer vessel takes cores collected from 13B-0578 and delivers to CPG facility to process.
12:15 → Navigate to next location 13B-0547 and anchor.
14:04 → Advance core at high resolution location 13B-0547-
13B-0547-C4:
N → 723820.76', E → 595044.95'
Δ → 20.9' from target location
Water Depth → 18'
Penetration → 9.5'; Recovery → +10' over - penetration so sample is discarded.
14:32 → Advance 13B-0547-C5:

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N → 723820.57'; E → 595010.85'
Δ → 16.4' from target location
Water Depth → 12.9'
Penetration → 9.5'; Recovery → 9.1'
Good sample, native material encountered
15:14 → Advance 13B-0547-C6
N → 723818.96'; E → 595012.77'
Δ → 13.7' from target location
Water Depth → 11.9'
Penetration → 9.5'; Recovery → 8.5'
Good sample, native material encountered
16:45 → Arrive back at CPG dock and unload cores.
17:00 → Arrive back at CPG facility and oversee sediment processing. Processing crews will not finish remaining core tonight. Cores from 13B-0578 (both collected today & previous day) will be sent tonight. In addition, 5 out of the 7 pressure transducers will be downloaded & removed by the end of today.

Sample Summary
13B-0578
13B-0547
18:15 → SO departs facility

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Attachment 5

Summary of Samples Collected by the Cooperating Parties Group

Locations and Type of Samples Collected by the Cooperating Parties Group
Second Supplemental Sampling Event
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Stations collected Week 1				
Station ID	**Station Type**	**Core Samples**	**Grab Samples**	**Notes**
13B-0547	Core/Grab	Yes	Yes	
13B-0546	Grab	NA	Yes	grab only station
13B-0551	Core/Grab	Yes	Yes	
13B-0564	Core/Grab	No	Yes	all cores poor recovery so only grab sampled
13B-0563	Core/Grab	Yes	Yes	
13B-0512	Core/Grab	No	Yes	all cores poor recovery so only grab sampled
13B-0510	Core/Grab	Yes	No	cores successful but no recovery on grabs
13B-0514	Core/Grab	No	Yes	all cores poor recovery so only grab sampled
13B-0530	Core/Grab	Yes	Yes	
13B-0533	Core/Grab	Yes	Yes	
13B-0504	Core/Grab	Yes	Yes	
13B-0550	Core/Grab	Yes	Yes	
13B-0505	Core/Grab	Yes	Yes	
13B-0565	Grab	NA	Yes	grab only station
13B-0566	Core/Grab	No	Yes	all cores poor recovery so only grab sampled
13B-0568	Grab	NA	Yes	grab only station
13B-0562	Grab	NA	Yes	grab only station
13B-0560	Core/Grab	Yes	Yes	
Stations collected Week 2				
Station ID	**Station Type**	**Core Samples**	**Grab Samples**	**Notes**
13B-0503	Core/Grab	Yes	Yes	
13B-0561	Core/Grab	Yes	Yes	
13B-0502	Core/Grab	Yes	Yes	
13B-0559	Core/Grab	Yes	Yes	
13B-0569	Grab	NA	No	grab only station-no recovery
13B-0507	Core/Grab	Yes	Yes	
13B-0572	Core/Grab	Yes	Yes	
13B-0573	Core/Grab	Yes	Yes	
13B-0501	Core/Grab	Yes	Yes	
13B-0574	Core/Grab	Yes	Yes	
13B-0513	Core/Grab	No	Yes	all cores poor recovery so only grab sampled
13B-0506	Core/Grab	Yes	Yes	
13B-0557	Core/Grab	Yes	Yes	
13B-0571	Core/Grab	Yes	Yes	
13B-0520	Core/Grab	No	Yes	all cores poor recovery so only grab sampled
13B-0508	Core/Grab	No	Yes	all cores poor recovery so only grab sampled
13B-0558	Core/Grab	Yes	Yes	

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13B-0555	Core/Grab	Yes	Yes	
13B-0522	Grab	NA	Yes	grab only station
13B-0567	Grab	NA	Yes	grab only station
13B-0529	Core/Grab	Yes	Yes	
13B-0570	Grab	NA	Yes	
Stations collected Week 3				
Station ID	**Station Type**	**Core Samples**	**Grab Samples**	**Notes**
13B-0534	Core/Grab	Yes	Yes	
13B-0556	Core/Grab	Yes	Yes	
13B-0526	Core/Grab	Yes	Yes	
13B-0511	Core/Grab	Yes	Yes	
13B-0527	Core/Grab	Yes	Yes	
13B-0515	Core/Grab	Yes	Yes	
13B-0532	Core/Grab	Yes	Yes	
13B-0521	Core/Grab	Yes	Yes	
13B-0528	Core/Grab	Yes	Yes	
13B-0524	Core/Grab	Yes	Yes	only one core able to be collected (>80% recovery)
13B-0525	Core/Grab	Yes	Yes	
13B-0536	Core/Grab	Yes	Yes	
13B-0516	Core/Grab	Yes	Yes	
13B-0535	Core/Grab	Yes	Yes	
13B-0518	Core/Grab	No	Yes	all cores poor recovery so only grab sampled
13B-0541	Core/Grab	Yes	Yes	
13B-0545	Core/Grab	No	No	poor recovery on all cores, no recovery on grabs
13B-0542	Core/Grab	Yes	Yes	
13B-0543	Core/Grab	No	Yes	all cores poor recovery so only grab sampled
Stations collected Week 4				
Station ID	**Station Type**	**Core Samples**	**Grab Samples**	**Notes**
13B-0531	Core/Grab	Yes	Yes	
13B-0509	Core/Grab	Yes	No	cores successful but no recovery on grabs
13B-0554	Core/Grab	Yes	Yes	
13B-0540	Core/Grab	Yes	Yes	
13B-0538	Core/Grab	Yes	Yes	
13B-0576	Core/Grab	No	Yes	all cores poor recovery so only grab sampled
13B-0553	Core/Grab	Yes	Yes	
13B-0539	Core/Grab	Yes	Yes	
13B-0537	Core/Grab	No	Yes	all cores poor recovery so only grab sampled; extended A interval to 0.85 feet
13B-0544	Core/Grab	Yes	Yes	

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13B-0575	Core/Grab	Yes	Yes	
13B-0549	Core/Grab	Yes	Yes	
13B-0552	Core/Grab	Yes	Yes	
13B-0577	Core/Grab	No	Yes	all cores poor recovery so only grab sampled
13B-0548	Core/Grab	Yes	Yes	
Stations collected Week 5				
Station ID	**Station Type**	**Core Samples**	**Grab Samples**	**Notes**
13B-0517	Core/Grab	No	Yes	all cores poor recovery so only grab sampled
13B-0519	Core/Grab	Yes	Yes	
13B-0523	Core/Grab	No	Yes	all cores poor recovery so only grab sampled
13B-0578	Core/Grab	Yes	Yes	
13B-0578*	Core/Grab	Yes	Yes	
13B-0547*	Core/Grab	Yes	Yes	

Notes:

NA - not applicable

* - high resolution core