

Appendix D

Field Documentation

D-07 – CSO Sampling Field Forms

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**CSO Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York**

Samplers/Inspectors:	<u>Michael Murphy, Graham Shales</u>	Station ID: <u>OH-005</u>					
	<u>Casey Shales (HDR)</u>	Time: <u>1310</u>					
Subcontractor/Crew:	<u>Traffic Safety</u>	Water Depth: <u>12.3 - 12.85</u>					
		Tide: <u>not recorded</u>					
		Weather: <u>Sunny - 80° - low humid</u>					
CSO Sediment Sample ID:	<u>GC-SD01H005</u>	Grab Penetration <u>0.5</u> ft					
Number of Sampling Attempts:	<u>>10</u>	Sample H ₂ O - 1330 Time: Sed - 1415					
Problems During Collection:	<u>None</u>						
QC SAMPLE DATA							
QA/QC Sample IDs:	<u>NONE</u>						
DUP	MS/MSD						
SURFACE WATER DATA & CONDITIONS							
DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)	ORP (mV)	Comments
3.76	6.09	24.77	0.3	0.661	Over Range	-96	dark brown/grey
Floating Debris (describe): Floating solids - brown color							
Water Color: brown - very turbid							
Clarity: Very turbid - brown							
Turbidity: Very turbid - brown							
Sheen: none detected							
Sample Analytical Parameters:				Bottles/Preservation:			
TCL VOCs	<input checked="" type="checkbox"/>	5 3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial/full; 4°C GC-SW01H005-DW-1				<u>CSO Wastewater ID</u>	
TCL SVOCs	<input checked="" type="checkbox"/>	8 oz Amber, wide mouth glass; protect from light, 4°C				- wastewater samples collected	
TCL Pesticides	<input checked="" type="checkbox"/>	8 oz wide mouth glass; 4°C				from the 0-0.5 interval	
TCL PCBs	<input checked="" type="checkbox"/>	8 oz wide mouth glass; 4°C				using laboratory cleaned	
TAL Metals + Hg	<input checked="" type="checkbox"/>	8 oz wide mouth glass; 4°C + filtered				certified HDPE bottles	
Cyanide	<input checked="" type="checkbox"/>	8 oz wide mouth glass; 4°C				- VOC sample collected +	
TOC	<input checked="" type="checkbox"/>	4 oz wide mouth glass; 4°C				poured at a slow rate	
Grainsize	<input checked="" type="checkbox"/>	4 oz wide mouth glass; no headspace; 4°C				to prevent volatilization	
AVS/SEM	<input checked="" type="checkbox"/>	3 x 1-gallon HDPE buckets; 4°C					
Toxicity	<input type="checkbox"/>						
SED SAMPLE DESCRIPTION							
Color:	<u>Black (10 YR 2/1)</u>		Moisture:	Dry	Sl. Moist	Moist	V.Moist (<u>Wet</u>)
Major Description:	Clay	Silty Clay	Silt	Clayey Sand	Sandy Clay	Sand	Gravelly Sand Gravel Grly Clay
Minor Description:	Organic	Mottled	Plastic	M.Plastic	Nodules	vt f coarse-grained	Ang / SA / SR / Rounded
Other Descriptors:	Well / poorly mod - sorted	well / poorly mod - cemented			Loose		
<u>PID - 0.0 ; CO - 0.0 ; H₂S - 0.0 ; LEL - 0.0 ; O₂ - 20.9</u>							
COMMENTS/OBSERVATIONS							
<u>Frank Bisecc (NYCDGP) + Melisa (GST) performing over-hole</u>							
Sampler Signature/Date	<u>Mr. JF</u> <u>6/30/10</u>						

On Carroll St
-in between 3rd + 4th Aves

Reviewed by

JFR Date 7/19/10

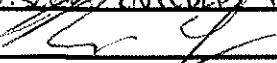
CSO Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	<u>M. Murphy</u> <u>G. Shukley</u> <u>C. Stokes (HDR)</u> <u>Traffic Safety</u>						
Subcontractor/Crew:	Station ID: <u>014-006</u> Time: <u>1800</u> Water Depth: <u>18.7 - 19.1' bbs</u> Tide: Weather: <u>Sunny - 80° - low humid</u>						
CSO Sediment Sample ID:	<u>Not Sampled</u> Grab Penetration <u>0.0</u> ft Sample H ₂ O - 1B15 Time: Sed - NA						
Number of Sampling Attempts:	<u>>10</u>						
Problems During Collection:	<u>No sediment collected - unable to collect sediment sample</u>						
QC SAMPLE DATA							
QA/QC Sample IDs:	<u>NONE</u> DUP _____, MS/MSD _____						
SURFACE WATER DATA & CONDITIONS							
DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)	ORP (mV)	Comments
3.98	7.03	22.53	0.6	1.22	177	-42	brown - suspended solids
Floating Debris (describe): brown floating solids in water							
Water Color: clear water - floating solids							
Clarity: clear water - floating solids							
Turbidity: floating solids							
Sheen: none observed							
Sample Analytical Parameters:				Bottleware/Preservation:			
TCL VOCs	<input checked="" type="checkbox"/>	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial/full; 4°C				<u>CSO Wastewater ID</u>	
TCL SVOCs	<input checked="" type="checkbox"/>	8 oz Amber, wide mouth glass; protect from light, 4°C				<u>GC-SW0H006-DW-1</u>	
TCL Pesticides	<input checked="" type="checkbox"/>	8 oz wide mouth glass; 4°C				- wastewater samples collected	
TCL PCBs	<input checked="" type="checkbox"/>	8 oz wide mouth glass; 4°C				from the 0-0.5' interval	
TAL Metals + Hg	<input checked="" type="checkbox"/>	8 oz wide mouth glass; 4°C				using certified laboratory	
Cyanide	<input checked="" type="checkbox"/>	8 oz wide mouth glass; 4°C				cleaned HDPE bottleware	
TOC	<input checked="" type="checkbox"/>	4 oz wide mouth glass; 4°C				- VOC sample collected + purged	
Grainsize	<input checked="" type="checkbox"/>	4-oz wide mouth glass w/ headspace; 4°C				at a slow rate to prevent volatiliz.	
AVS/SEM	<input checked="" type="checkbox"/>	8 x 1-gallon HDPE buckets; 4°C					
Toxicity	<input checked="" type="checkbox"/>						
PCB Congeners	<input checked="" type="checkbox"/>						
SED SAMPLE DESCRIPTION							
Color:							
Major Description:	<u>No Clay</u> <u>Silt</u> <u>Sand</u> <u>Sandy Clay</u> <u>Sand</u> <u>Gravelly Sand</u> <u>Gravel</u> <u>Gritty Clay</u>						
Minor Description:	<u>Organic</u> <u>Mottled</u> <u>Plastic</u> <u>M. Plastic</u> <u>Nodules</u> <u>vt</u> <u>coarse-grained</u> <u>Anhydrite / SR / Rounded</u>						
Other Descriptors:	<u>Well / poorly / mod - sorted</u> <u>well / poorly / mod - cemented</u> <u>Loose</u>						
COMMENTS/OBSERVATIONS							
<p><u>No sediment sample collected - no measurable sediment in CSO chamber</u></p> <p><u>PID - 0.0 ; H₂S - 0.0 ; CO - 0.0 ; LEL - 0 ; O₂ - 20.9</u></p> <p><u>Frank Biscardi (NYCDEP) + Melissa (GERT) performing oversight</u></p>							
Sampler Signature/Date	<u>11/2 - 1/1</u> <u>6/30/10</u>						

On 3rd Ave
 - in between 18th + 19th st

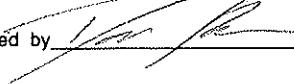
Reviewed by J. Taylor Date 7/19/10

CSO Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	M. Murphy, T. Bates G. Sharkey	Station ID: OH-007					
Subcontractor/Crew:	None	Time: 0900 Water Depth: 11.9 - No bottom sediment Tide: Not Recorded Weather: Sunny - 80° - low humidity					
CSO Sediment Sample ID:	GC-SNOH007	Grab Penetration 0.5 ft Sample H ₂ O - 1000 Time: Sep - 10/10					
Number of Sampling Attempts:	Sediment >10	Wastewater 7/10					
Problems During Collection:	- Sediment sample collected from interceptor chamber - wastewater sample collected from pumping station	QC SAMPLE DATA					
QA/QC Sample IDs:	None DUP _____ MS/MSD _____						
SURFACE WATER DATA & CONDITIONS							
DO (mg/L)	pH (SU)	Temp (C)	Salinity % (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)	ORP (mV)	Comments
0.99	8.00	23.36	0.15	3.95	64.2	-85	
Floating Debris (describe): garbage + sewage							
Water Color: brown/teal							
Clarity: cloudy							
Turbidity: cloudy							
Sheen: none observed							
Sample Analytical Parameters:				Bottleware/Preservation:			
TCL VOCs	<input checked="" type="checkbox"/>	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial/full; 4°C					
TCL SVOCs	<input checked="" type="checkbox"/>	8 oz Amber, wide mouth glass; protect from light, 4°C					
TCL Pesticides	<input checked="" type="checkbox"/>	8 oz wide mouth glass; 4°C					
TCL PCBs	<input checked="" type="checkbox"/>	8 oz wide mouth glass; 4°C					
TAL Metals + Hg	<input checked="" type="checkbox"/>	8 oz wide mouth glass; 4°C + F. (100ml) (0.45mm)					
Cyanide	<input checked="" type="checkbox"/>	8 oz wide mouth glass; 4°C					
TOC	<input checked="" type="checkbox"/>	4 oz wide mouth glass; 4°C					
Grainsize	<input checked="" type="checkbox"/>	4 oz wide mouth glass; 4°C					
AVS/SEM	<input checked="" type="checkbox"/>	4 oz wide mouth glass; no headspace; 4°C					
Toxicity	<input checked="" type="checkbox"/>	3 x 1-gallon HDPE buckets; 4°C					
PCB Cong	<input checked="" type="checkbox"/>	- wastewater samples collected from the 0-0.5' interval using certified laboratory clean HDPE bottleware					
		- VOC sample collected + poured a					
SED SAMPLE DESCRIPTION Slow rate to prevent volatilization							
Color:	10 YR 2/1 - Block		Moisture:	Dry	Sl. Moist	Moist	V.Moist Wet
Major Description:	Clay	Silty Clay	Silt	Clayey Sand	Sandy Clay	Sand	Gravelly Sand Gravel Grivy Clay Gravelly Silt
Minor Description:	Organic	Mottled	Plastic	M.Plastic	Nodules	(Coarse-grained)	Ang / SA / SB / Rounded
Other Descriptors:	Well / poorly / mod - sorted	well / poorly / mod - cemented			Loose		
Strong septic like odor worms noted in sediment PID 21.5; CO - 0.0; H ₂ S - 0.0; LEL - 0.0; 66							
COMMENTS/OBSERVATIONS							
<ul style="list-style-type: none"> - pumps turned on @ 1020 while collecting H₂O sample - Wastewater sample not collected from 2nd Ave interceptor chamber <ul style="list-style-type: none"> - wastewater sample collected from pumping station adjacent to tide gate (OK as per Bill M. Miles) - sediment sample collected interceptor chamber - no sediment in pumping stations 							
Frank Bisignano (NYCDEP) + Michael (GET) provide oversight							
Sampler Signature/Date  7/1/2010							

On 2nd Ave
in between 5th + 6th Sts

Ferrons Iron result: 0.55 mg/l

Reviewed by  Date 7/14/10

Bottom
- Approx 56" below top of water

CSO Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	<u>M Murphy</u> <u>C Stokes</u>		Station ID:	<u>RH-031</u>	
Subcontractor/Crew:	<u>B. Shockey</u>		Time:	<u>1700</u>	
			Water Depth:	<u>12.6 - 14.8 ft</u>	
			Tide:	<u>Not Recorded</u>	
			Weather:	<u>Sunny - 80° - low humid.</u>	
CSO Sediment Sample ID:	<u>GC-SDR H031</u>		Grab Penetration	0.5 ft	Sample Time: <u>H2O - 1710</u> <u>Sed - 1730</u>
Number of Sampling Attempts:	<u>>10 sediment</u>		<u>>10 wastewater</u>		
Problems During Collection:	<u>Sediment is very soft - difficult to fill bottles</u>				
QC SAMPLE DATA					
QA/QC Sample IDs:	<input checked="" type="radio"/> <u>NONE</u> <input type="radio"/> <u>DUP</u> _____, <input type="radio"/> <u>MS/MSD</u> _____				
SURFACE WATER DATA & CONDITIONS					
DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)
4.63	7.08	26.46	0.8	1.54	260
					-101
					<u>Cloudy / brown</u>
Floating Debris (describe):	<u>None observed</u>				
Water Color:	<u>brown - Floating solids</u>				
Clarity:	<u>Cloudy</u>				
Turbidity:	<u>Cloudy</u>				
Sheen:	<u>None observed</u>				
Sample Analytical Parameters:	Bottleware/Preservation:				
TCL VOCs	<input checked="" type="checkbox"/> 3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial/full; 4°C				
TCL SVOCs	<input checked="" type="checkbox"/> 8 oz Amber, wide mouth glass; protect from light, 4°C				
TCL Pesticides	<input checked="" type="checkbox"/> 8 oz wide mouth glass; 4°C				
TCL PCBs	<input checked="" type="checkbox"/> 8 oz wide mouth glass; 4°C				
TAL Metals + Hg	<input checked="" type="checkbox"/> 8 oz wide mouth glass; 4°C + filtered				
Cyanide	<input checked="" type="checkbox"/> 8 oz wide mouth glass; 4°C (0.45 m)				
TOC	<input checked="" type="checkbox"/> 4 oz wide mouth glass; 4°C				
Grainsize	<input checked="" type="checkbox"/> 4 oz wide mouth glass; no headspace; 4°C				
AVS/SEM	<input checked="" type="checkbox"/> 3 x 1-gallon HDPE buckets; 4°C				
Toxicity	<input checked="" type="checkbox"/> 8 oz WM Amber				
PCB Cong	<input checked="" type="checkbox"/>				
SED SAMPLE DESCRIPTION					
Color:	<u>Black (OYR 21)</u>				
Moisture:	Dry	SI. Moist	Moist	V.Moist	<input checked="" type="radio"/> Wet
Major Description:	Clay	Silty Clay	Silt	Clayey Sand	Sandy Clay
Minor Description:	Organic	Mottled	Plastic	M.Plastic	Nodules
Other Descriptors:	Well	poorly	/ mod - sorted	well	poorly / mod - cemented
					<u>Loose</u>
COMMENTS/OBSERVATIONS					
<ul style="list-style-type: none"> - traffic very busy in intersection - traffic control shifts down intersection - sediment in pipe (Pipe is approx 72") diameter approx NYCDP 					
<p><u>strong septic-like odor</u></p> <p><u>PID - 0.0 ; H₂S - 0.0 ; CO - 0.0 ; LEL - 0.0 ; O₂ - 7.9</u></p>					
<p><u>Frank Biscardi - NYCDP - onsite performing oversight</u></p> <p><u>Mr. Hess - GEI onsite providing oversight</u></p>					
Sampler Signature/Date	<u>R. G</u>				
Reviewed by <u>T. J. B</u> Date <u>7/19/10</u>					

In intersection of Bond,
Lorraine, + Hamilton Ave.

ALERT FIRE DEPARTMENT THAT WE ARE WORKING ACROSS ST!!!

CSO Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: M. Murphy, J. Belles
C. Stokes
Subcontractor/Crew: Traffic Management

Station ID: RH-033
Time: 0830 5/30/10
Water Depth: Not Recorded - Aprox 9'
Tide: Not Recorded
Weather: Sunny - 80° - low wind

CSO Sediment Sample ID: GC-SDRH033
Number of Sampling Attempts: 2/0

Grab Penetration: 0.5 " Sample H₂O: 840
Time: Sec - 915

QC SAMPLE DATA

QA/QC Sample IDs:
NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)	ORP (mV)	Comments
8.62	6.20	22.58	0.7	1.40	514	6	Cloudy

Floating Debris (describe): Floating solids

Water Color: brown - cloudy

Clarity: down - cloudy

Turbidity: ~~Brown - cloudy~~ - Floating solids

Sheen: none observed

Sample Analytical Parameters:	Bottleware/Preservation:
TCL VOCs	3 x 40 mL vials/TerraCore with stir bar, 1-40 mL vial/full; 4°C
TCL SVOCs	8 oz Amber, wide mouth glass; protect from light; 4°C
TCL Pesticides	8 oz wide mouth glass; 4°C
TCL PCBs	8 oz wide mouth glass; 4°C
TAL Metals + Hg	8 oz wide mouth glass; 4°C + Filtered (c.45 mm)
Cyanide	8 oz wide mouth glass; 4°C
TOC	4 oz wide mouth glass; 4°C
Grainsize	
AVS/SEM	4 oz wide mouth glass; no headspace; 4°C
Toxicity	3 x 1-gallon HDPE buckets; 4°C

SED SAMPLE DESCRIPTION

Color: **Moisture:** Dry Si. Moist Moist V. Moist Wet
Major Description: Clay Silty Clay Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay
Minor Description: Organic Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang SA SR Rounded
Other Descriptors: Well /poorly mod - sorted well /poorly /mod - cemented Loose

PID - 0.0 ; H₂S - 0.0 ; CO - 0.0 ; LEL - 0 ; O₂ - 20.9
Strong organic like odor
COMMENTS/OBSERVATIONS

Frank Bescen (NYCDEP) + Melissa (GERT) perform oversight

Sampler Signature/Date PR Y 6/30/08

On Douglass St
- corner of Newns

Reviewed by Tasha Date 7/19/10

CSO Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Dave Reamer Station ID: RH-034
Graham Sharkey Time: 0950 (surface water)
Subcontractor/Crew: none Water Depth: NA
Tide: mid tide
Weather: 66-78° sunny, low-mod humidity

CSO Sediment Sample ID: - no sample collected Grab Penetration: 0 ft Sample Time: -

Number of Sampling Attempts: - no sediment in CSO sampling location

Problems During Collection: - no sediment in CSO sampling location

QC SAMPLE DATA

QA/QC Sample IDs:

NONE

DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)	ORP (mV)	Comments
10.05 4.85	6.75	12.05	0.7	1.49	82.0	104	

Floating Debris (describe): present - paper and foams

Water Color: brown

Clarity: - none

Turbidity: high

Sheen: none

Sample Analytical Parameters:

TCL VOCs	<input checked="" type="checkbox"/>
TCL SVOCs	<input checked="" type="checkbox"/>
TCL Pesticides	<input checked="" type="checkbox"/>
TCL PCBs	<input checked="" type="checkbox"/>
TAL Metals + Hg	<input checked="" type="checkbox"/>
Cyanide	<input checked="" type="checkbox"/>
TOC	<input checked="" type="checkbox"/>
Grainsize	<input type="checkbox"/>
AVS/SEM	<input type="checkbox"/>
Toxicity	<input type="checkbox"/>

Bottleware/Preservation:

3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial, full; 4°C

8 oz Amber, wide mouth glass; protect from light, 4°C

8 oz wide mouth glass; 4°C

8 oz wide mouth glass; 4°C

8 oz wide mouth glass; 4°C + Filtered (0.45µm)

8 oz wide mouth glass; 4°C

4 oz wide mouth glass; 4°C

4 oz wide mouth glass; no headspace; 4°C

3 x 1-gallon HDPE buckets; 4°C

+ Geochem samples

CSO waste water ID:
GC-SWRH034-DW-1

SED SAMPLE DESCRIPTION

Color:

Moisture:

Dry Si. Moist Moist V.Moist Wet

Major Description:

Clay Silty Clay Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description:

Organic Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded

Well / poorly / mod - sorted well / poorly / mod - cemented Loose

Other Descriptors:

COMMENTS/OBSERVATIONS

- used 24 hour discrete sampler (ISCO 6700) to collect composite sample.

Ferrrous iron result = 0.00 mg/l

Sampler Signature/Date

JK 7/1/10

Reviewed by J. J. Flanagan Date 7/19/10

**CSO Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York**

Samplers/Inspectors: <i>M. Murphy, G. Sharkey C. Stokes</i>	Station ID: <i>R.H - 035</i>						
Subcontractor/Crew: <i>Troffie Control</i>	Time: <i>1445</i>						
	Water Depth: <i>6.40 - 7.50</i>						
	Tide: <i>Not Recorded</i>						
	Weather: <i>Sunny - 80° - low humid</i>						
CSO Sediment Sample ID: <i>GC-SDRH035</i>	Grab Penetration <i>0.5 ft</i>						
Number of Sampling Attempts: <i>710</i>	Sample H ₂ O - 1515 Time: Sed - 1545						
Problems During Collection: <i>None</i>							
QC SAMPLE DATA							
QA/QC Sample IDs:	DUP <i>D-06302810-02, MS/MSD</i>						
NONE	SEDIMENT						
SURFACE WATER DATA & CONDITIONS							
DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)	ORP (mV)	Comments
2.59	7.15	26.52	0.4	0.778	286	-74	Cloudy
Floating Debris (describe): <i>none observed</i>							
Water Color: <i>Brown / cloudy</i>							
Clarity: <i>Cloudy</i>							
Turbidity: <i>Cloudy</i>							
Sheen: <i>none observed</i>							
Sample Analytical Parameters:	Bottleware/Preservation:						
<input checked="" type="checkbox"/> TCL VOCs <input checked="" type="checkbox"/> TCL SVOCs <input checked="" type="checkbox"/> TCL Pesticides <input checked="" type="checkbox"/> TCL PCBs <input checked="" type="checkbox"/> TAL Metals + Hg <input checked="" type="checkbox"/> Cyanide <input checked="" type="checkbox"/> TOC <input checked="" type="checkbox"/> Grainsize <input checked="" type="checkbox"/> AVS/SEM <input checked="" type="checkbox"/> Toxicity	<i>CSO Wastewater ID</i> 3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial/full; 4°C 8 oz Amber, wide mouth glass; protect from light, 4°C 8 oz wide mouth glass; 4°C 8 oz wide mouth glass; 4°C 8 oz wide mouth glass; 4°C + Filtered 8 oz wide mouth glass; 4°C 4 oz wide mouth glass; 4°C 4 oz wide mouth glass; no headspace; 4°C 3 x 1-gallon HDPE buckets; 4°C <i>- wastewater samples collected</i> <i>From the 0.0-0.5' interval</i> <i>(0.45m)</i> <i>using certified laboratory</i> <i>cleaned HDPE bottleware</i> <i>- VOC sample collected + poured</i> <i>at a slow rate to prevent</i> <i>volatilization</i>						
SED SAMPLE DESCRIPTION							
Color: <i>Black (10 yr 2/1)</i>	Moisture: <i>Dry Si. Moist Mois V.Moist Wet</i>						
Major Description: <i>Clay Silty Clay Silt Clayey Sand Sandy Clay Sand</i>	<i>Gravelly Sand Gravel Gravily Clay</i>						
Minor Description: <i>Organic Mottled Plastic M.Plastic Nodules vt f coarse-grained</i>	<i>Ang /SA /SP/ Rounded</i>						
Other Descriptors: <i>Well /poorly/ mod - sorted well /poorly/ mod - cemented</i>	<i>Loose</i>						
COMMENTS/OBSERVATIONS							
<i>PID - 0.0 ; H₂S - 0.0 ; CO - 0.0 ; LEC - 0 ; O₂ - 70.9</i> <i>Frank Bescend (NYDGA) + Melissa (GSI) perform oversight</i>							
Sampler Signature/Date	<i>R-4 6/30/10</i>						

On Bond Street

- noted as secondary (B) location
- up stream from tide gate
- round manhole
- near corner of 4th St

Reviewed by *F.R.* Date *7/19/10*

**CSO Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York**

Samplers/Inspectors:	<i>M. Murphy, G. Sheehan C. Stokes (HDR)</i>	Station ID: <i>RH-036</i>
Subcontractor/Crew:	<i>Traffic Control</i>	Time: <i>1130</i>
CSO Sediment Sample ID:	<i>GC-5DRH036</i>	Water Depth: <i>7.55 - 7.85</i>
Number of Sampling Attempts:	<i>>10</i>	Tide: <i>Not Measured</i>
Problems During Collection:	<i>None</i>	
Grab Penetration:	<i>0.5 ft</i>	Sample H ₂ O - <i>1145</i> Time: <i>sed - 1235</i>

QC SAMPLE DATA							
QA/QC Sample IDs:	<i>DUP</i> (MS/MSD) <i>MSD collected For H₂O + sed</i>						
NONE							

SURFACE WATER DATA & CONDITIONS							
DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)	ORP (mV)	Comments
4.55	6.97	23.29	0.4	0.851	118	145	<i>clear - floating solids</i>

Floating Debris (describe): *Sanitary waste*

Water Color: *Clear - floating solids*

Clarity: *clear - floating solids*

Turbidity: *clear - floating solids*

Sheen: *none (observed)*

Sample Analytical Parameters:	Bottleware/Preservation:
TCL VOCs	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial/full; 4°C
TCL SVOCs	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	8 oz wide mouth glass; 4°C
TCL PCBs	8 oz wide mouth glass; 4°C
TAL Metals + Hg	8 oz wide mouth glass; 4°C + F, Itched
Cyanide	8 oz wide mouth glass; 4°C
TOC	4 oz wide mouth glass; 4°C
Grainsize	4 oz wide mouth glass; no headspace; 4°C
AVS/SEM	3 x 1-gallon HDPE buckets; 4°C
Toxicity	

CSO Wastewater ID

GC-SWRH036-DW-1

- wastewater samples collected from the 0.0-0.5' interval using certified laboratory cleaned HDPE bottleware

- VOC sample collected + poured at a slow rate to prevent volatilization

SED SAMPLE DESCRIPTION							
Color:	<i>Black (IOVR 2/1)</i>						
Major Description:	Clay	Silty Clay	Silt	Clayey Sand	Sandy Clay	Sand	Gravelly Sand Gravel Grvly Clay <i>Silty Sand</i>
Minor Description:	Organic	Mottled	Plastic	M.Plastic	Nodules	vt f coarse-grained	Ang / SA / SR / Rounded
Other Descriptors:	Well / poorly / mod - sorted well / poorly / mod - cemented Loose - Few gravel (angular / sub-angular) - Organics - sepias like odor - Worms noted & appear 1/4" long in sediment PED - 0.0 ; CO - 0.0 ; H2S - 0.0 ; LEC - 0						

COMMENTS/OBSERVATIONS

Floating debris noted - garbage + toilet paper
Frank Bescardi (NYC DEP) + Melissa (GEI) performing oversight
Sampler Signature/Date <i>fr-b</i> <i>6/30/10</i>

On Newing St (curb)
at the end of
President St.

Reviewed by *J. P. P.* Date *7/19/10*

CSO Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	<u>M. Murphy</u> , <u>G. Sherkey</u>		Station ID:	R H - 037				
Subcontractor/Crew:	<u>C. Stokes</u> <u>Treffer Control</u>		Time:	1005				
		Water Depth:	9.0 - 9.1 ' b.t.d.c.					
		Tide:	not recorded					
		Weather:	Sunny - 80° - low humidity					
CSO Sediment Sample ID:	GC - SDR H037		Grab Penetration:	0.5 ft	Sample Time: H20 - 1030 sed - 1100			
Number of Sampling Attempts:	>10							
Problems During Collection:	unable to collect sediment sample from main channel in CSO - collected from side							
OC SAMPLE DATA								
QA/QC Sample ID:	DUP D-06302010-01, MS/MSD							
NONE								
WASTEWATER								
SURFACE WATER DATA & CONDITIONS								
DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)	ORP (mV)	Comments	
7.90	7.62	21.29	0.3	0.677	72.2	49	brown solids - clear H ₂ O	
Floating Debris (describe):	floating brown solids in water							
Water Color:	clear - brown floating solids in water							
Clarity:	clear - floating solids							
Turbidity:	floating solids							
Sheen:	clear "oil"-like substance floating on water surface							
Sample Analytical Parameters:	Bottleware/Preservation: <u>CSO Wastewater ID</u>							
TCL VOCs	<input checked="" type="checkbox"/>	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial/full; 4°C GC - SWR H037-Dw-1						
TCL SVOCs	<input checked="" type="checkbox"/>	8 oz Amber, wide mouth glass; protect from light, 4°C						
TCL Pesticides	<input checked="" type="checkbox"/>	8 oz wide mouth glass; 4°C						
TCL PCBs	<input checked="" type="checkbox"/>	8 oz wide mouth glass; 4°C						
TAL Metals + Hg	<input checked="" type="checkbox"/>	8 oz wide mouth glass; 4°C + F (TerraCore)						
Cyanide	<input checked="" type="checkbox"/>	8 oz wide mouth glass; 4°C (0.45)						
TOC	<input checked="" type="checkbox"/>	4 oz wide mouth glass; 4°C						
Grainsize	<input checked="" type="checkbox"/>	4 oz wide mouth glass; no headspace; 4°C						
AVS/SEM	<input checked="" type="checkbox"/>	3 x 1-gallon HDPE buckets; 4°C						
Toxicity	<input checked="" type="checkbox"/>	- Wastewater samples collected from the 0.0 - 0.5' interval using certified laboratory cleaned HDPE bottleware						
		- VOC sample collected + poured at a slow rate to prevent volatilization						
SED SAMPLE DESCRIPTION								
Color:	Black (10YR 2/1) / D. Brown (10YR 4/2)		Moisture:	Dry	Sl. Moist	Moist	V.Moist (Wet)	
Major Description:	Clay	Silty Clay	Silt	Clayey Sand	Sandy Clay	Sand	Gravelly Sand Gravel Grly Clay (Sandy S.H.)	
Minor Description:	Organic	Mottled	Plastic	M.Plastic	Nodules	vt f coarse-grained	Ang (SA / SB / Rounded)	
Other Descriptors:	Well / poorly / mod - sorted	well / poorly /	mod - cemented	Loose				
COMMENTS/OBSERVATIONS								
<ul style="list-style-type: none"> - sediment sample not collected from the main channel of CSO chamber - sediment sample collected from platform area below stairs + under sides "Oil"-like residue noted on water surface while collecting sample - oil-like substance is non-water soluble, slick, clear, not sticky/sticky, floats on water 								
Frank Bescer (NYDEC) + Meliss. (West), performing oversight								
Sampler Signature/Date	<u>M - J</u> 6/30/10							

On Nevins at the
end of Seckett St.
in front of private
driveway/entrance

Reviewed by J. R. P. Date 7/14/10

CSO Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	M. Murphy G. Shatley	J. Balas	Station ID: RH - 038
Subcontractor/Crew:	None	Time: 0800	Water Depth: 15.1 - 15.35 ft/oc
		Tide: not measured	Weather: Sunny - 75° - low wind

CSO Sediment Sample ID: Sediment Sample NOT Collected Grab Penetration 0.0 ft Sample H₂O - 8.25 Time: sed - NA

Number of Sampling Attempts: >10

Problems During Collection: No sediment noted in chamber - unable to collect sediment sample

QC SAMPLE DATA

QA/QC Sample IDs:

NONE

DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)	ORP (mV)	Comments
4.95	10.35	23.80	0.17	4.46	106	-48	cloudy - white - floating solids

Floating Debris (describe): white floating solids

Water Color: white - cloudy

Clarity: cloudy

Turbidity: cloudy

Sheen: not observed

Sample Analytical Parameters:

Bottleware/Preservation:

TCL VOCs

3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial/full; 4°C

TCL SVOCs

8 oz Amber, wide mouth glass; protect from light, 4°C

TCL Pesticides

8 oz wide mouth glass; 4°C

TCL PCBs

8 oz wide mouth glass; 4°C

TAL Metals + Hg

8 oz wide mouth glass; 4°C

Cyanide

8 oz wide mouth glass; 4°C

TOC

4 oz wide mouth glass; 4°C

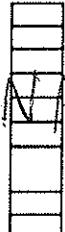
Grainsize

4 oz wide mouth glass; no headspace; 4°C

AVS/SEM

3 x 1-gallon HDPE buckets; 4°C

Toxicity



CSO Wastewater ID

GC-SWRH038-DW-1

~ wastewater samples collected from the 0-0.5' interval using certified laboratory cleaned HDPE bottleware

~ VOC sample collected & poured at a slow rate to prevent volatilization

SED SAMPLE DESCRIPTION

Color:

Moisture: Dry Si. Moist Moist V.Moist Wet

Major Description:

Clay Silty Clay Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description:

Organic Mottled Plastic M. Plastic Nodules vt f coarse-grained Ang / SA / SR / Rounded

Well / poorly / mod - sorted well / poorly / mod - cemented Loose

Other Descriptors:

No sediment in interceptor chamber
no sample collected

COMMENTS/OBSERVATIONS

PID - 0.0 ; CO - 0.0 ; H₂S = 0.0 ; LEL - 0.0 ; O₂ - 20.9

Frank Bascaro (NYCDEP) + Metlife (GET) perform oversight

Sampler Signature/Date

7/1/10

On Degraw St (sidewalk)
-corner of Degraw +
Neutons

Reviewed by John Faran Date 7/10/10

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	Michael Murphy Mary Velasquez <i>Jane Belles</i>	Station ID: <i>01H-005</i>						
Subcontractor/Crew:	Traffic Management	Time: <i>1800</i>						
		Water Depth: <i>12.3 - 13.0'</i>						
		Tide: <i>Not Recorded</i>						
		Weather: <i>Partly Suny - 70° - Humid</i>						
CSO Wastewater Sample ID:	<i>GC-SW0H005-WW-1</i>	Sample Depth (below top surface) <i>0.5'</i> ft Sample Time: <i>1015</i>						
Wet or Dry Weather Event:	<i>Wet</i>							
Number of Sampling Attempts:	<i>>10</i>							
Problems During Collection:	<i>No Sediment sample Collected</i>							
QC SAMPLE DATA								
QA/QC Sample IDs:	<i>NONE</i>							
DUP	<i>MS/MSD</i>							
SURFACE WATER DATA & CONDITIONS								
DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)	ORP (mV)	Comments	
<i>5.47</i>	<i>7.18</i>	<i>27.01</i>	<i>0.2</i>	<i>0.426</i>	<i>1026</i> <i>(mm)</i>	<i>157</i>	<i>brown / cloudy</i>	
					<i>103</i>			
Floating Debris (describe):	<i>Flecky brown soil/s</i>							
Water Color:	<i>Brown / turbid</i>							
Clarity:	<i>Cloudy</i>							
Turbidity:	<i>Brown Flecky Soil/s</i>							
Sheen:	<i>Not observed</i>							
Sample Analytical Parameters:	Bottleware/Preservation:							
TCL VOCs	<input checked="" type="checkbox"/>	5x 40 mL VOA vials, no headspace; HCL to pH <2; 4°C						
TCL SVOCs	<input checked="" type="checkbox"/>	2 x 1 L amber glass; 4°C						
TCL Pesticides	<input checked="" type="checkbox"/>	2 x 1 L amber glass; 4°C						
TCL PCBs	<input checked="" type="checkbox"/>	2 x 1 L amber glass; 4°C						
TAL Metals + Hg (& filtered)	<input checked="" type="checkbox"/>	2 x 1 L HDPE; HNO3 to pH < 2, 4°C						
Cyanide	<input checked="" type="checkbox"/>	1 x 1 L HDPE; NaOH to pH > 12, 4°C						
TSS	<input checked="" type="checkbox"/>	1 x 1500 ml HDPE; 4°C						
Wet Chemistry		2 x 250 ml HDPE; HNO3; 1 x 250 ml HDPE H2SO4; 4 x 250 ml HDPE, 1 x 250 ml amber H2SO4						
COMMENTS/OBSERVATIONS								
<ul style="list-style-type: none"> - Wastewater samples collected from 0.0' - 0.5' interval using certified laboratory cleaned HDPE bottle ware (disposable) - VOC sample collected & preserved at slow rate to prevent volatilization 								
<ul style="list-style-type: none"> - Close off traffic access to street - And, Judd / Julian Hess onsite during sample collection 								
<i>B. G. L. Dr.</i> <i>Frank Soverino (NYCDEP) Michael Fetter + Brett Still (GSC) present during</i> <i>Sampler Signature/Date</i> <i>7/13/10</i>								

- On Carroll St, in between 3rd & 4th Ave

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	Michael Murphy Mary Velasquez (m) James Belas		Station ID: RH - 033					
Subcontractor/Crew:	Traffic Management		Time: ~1430					
			Water Depth: 5.3 - 7.05					
			Tide: Not Recorded					
			Weather: Slight Rain / Dizzle					
CSO Wastewater Sample ID:	GC-SWRH033-WW-1		Sample Depth (below top surface)					
Wet or Dry Weather Event:	Wet		0.5 ft Sample Time: 1435					
Number of Sampling Attempts:	>10							
Problems During Collection:	GEI collects additional 2L liters of sample volume NO sediment Sample Collected							
QC SAMPLE DATA								
QA/QC Sample IDs:	None DUP D-071B 2010-01, MS/MSD							
SURFACE WATER DATA & CONDITIONS								
DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)	ORP (mV)	Comments	
5.04	6.15	26.03	0.2	0.320	123	244	ext. load / white	
Floating Debris (describe):	floating solids - brown							
Water Color:	Clear - floating solids							
Clarity:	cloudy - white							
Turbidity:	turbid							
Sheen:	not observed							
Sample Analytical Parameters:	Bottleware/Preservation:							
TCL VOCs	✓	5x 40 mL VOA vials, no headspace; HCl to pH <2; 4°C						
TCL SVOCs	✓	2 x 1 L amber glass; 4°C						
TCL Pesticides	✓	2 x 1 L amber glass; 4°C						
TCL PCBs	✓	2 x 1 L amber glass; 4°C						
TAL Metals + Hg (& filtered)	✓	2 x 1 L HDPE; HNO3 to pH < 2, 4°C						
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C						
TSS	✓	1 x 1500 ml HDPE; 4°C						
Wet Chemistry		2 x 250 ml HDPE; HNO3; 1 x 250 ml HDPE H ₂ SO ₄ ; 4 x 250 ml HDPE, 1 x 250 ml amber H ₂ SO ₄						
COMMENTS/OBSERVATIONS								
<ul style="list-style-type: none"> - Wastewater samples collected from 0.0 ft to 0.5 ft interval using certified laboratory cleaned HDPE bottleware (disposable) - VOC sample collected & poured at slow rate to prevent volatilization 								
<ul style="list-style-type: none"> - After VOC collection chamber "empties" water level drops to approx 0.5' bgs 								
<p>Biscardi (m) Frank Soteres (NYCDEP) + Brett Still (GEI) provide oversight</p>								
Sampler Signature/Date	n-g 7/13/10							

- On Douglass st, corner of Nevins

Reviewed by Taylor Date 7/19/10

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	Michael Murphy <i>Mary Velasquez Mike Broscoe (GRB)</i>	Station ID:	RH - 034
Subcontractor/Crew:	Traffic Management	Time:	1430
		Water Depth:	NR
		Tide:	NR
		Weather:	Rein storms - 70-80°
CSO Wastewater Sample ID:	Sample Depth (below top surface)		Not Recorded

CSO Wastewater Sample ID: GC - SW RH034 - WW-1

Sample Depth (below top surface) 1.0 ft Sample Time: 1430

Wet or Dry Weather Event: Wet

Number of Sampling Attempts: 1 - 24 hour composite

Problems During Collection: 24 hour samplers shut off before full volumes could be collected - street only 2 Amber jugs + filters

QC SAMPLE DATA

QA/QC Sample IDs:		
<i>NONE</i>	DUP _____	MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)	ORP (mV)	Comments
							<i>Not recorded</i>

Floating Debris (describe): Floating garbage - refuse - bottles

Water Color: brown - floating solids

Clarity: cloudy

Turbidity: cloudy

Sheen: none observed

Sample Analytical Parameters:

Bottleware/Preservation:

TCL VOCs	5x 40 mL VOA vials, no headspace; HCL to pH <2; 4°C
TCL SVOCs	2 x 1 L amber glass; 4°C
TCL Pesticides	2 x 1 L amber glass; 4°C
TCL PCBs	2 x 1 L amber glass; 4°C
TAL Metals + Hg (& filtered)	2 x 1 L HDPE; HNO3 to pH < 2, 4°C
Cyanide	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	1 x 1 500 ml HDPE; 4°C
Wet Chemistry	2 x 250 ml HDPE; HNO3; 1 x 250 ml HDPE H2SO4; 4 x 250 ml HDPE, 1 x 250 ml amber H2SO4

COMMENTS/OBSERVATIONS

- sample collected using 24-hour ISCO composite sampler
- sample was collected via ISCO pump into a 10-L tote and then poured into sample bottleware
- VOC sample collected + poured at a slow enough rate to prevent volatilization

- low volume - sample submitted for SVAC, total metal + dissolved metals + TSS

Sampler Signature/Date

R. J. 7/14/10

Gowanus pumping station on
Butler St.

Reviewed by *[Signature]*

Date *7/14/10*

CSO Wastewater Sampling Form Gowanus Canal Remedial Investigation Brooklyn, Kings County, New York								
Samplers/Inspectors:	Michael Murphy Many Velasquez Jones & Belus			Station ID:	RH = 036			
Subcontractor/Crew:	Traffic Management			Time:	1635			
				Water Depth:	7.7 - 7.9			
				Tide:	Low tide Not Recorded			
				Weather:	Overcast - 70° - hazy			
CSO Wastewater Sample ID:	GC-SW RH036-WW-1			Sample Depth (below top surface)	0.2 m	Sample Time:	1705	
Wet or Dry Weather Event:	Wet							
Number of Sampling Attempts:	1/10							
Problems During Collection:	NO Sediment sample collected							
QC SAMPLE DATA								
QA/QC Sample IDs:	<input checked="" type="checkbox"/> NONE <input type="checkbox"/> DUP <input type="checkbox"/> MS/MSD							
SURFACE WATER DATA & CONDITIONS								
DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)	ORP (mV)	Comments	
8.04	7.07	23.03	0.4	0.801	47.2	122	Brown / cloudy	
Floating Debris (describe):	Floating, solids - toilet paper							
Water Color:	brown							
Clarity:	cloudy							
Turbidity:	Cloudy / Brown							
Sheen:	Not observed							
Sample Analytical Parameters:	Bottleware/Preservation:							
TCL VOCs	<input checked="" type="checkbox"/>	5x 40 mL VOA vials, no headspace; HCL to pH <2; 4°C						
TCL SVOCs	<input checked="" type="checkbox"/>	2 x 1 L amber glass; 4°C						
TCL Pesticides	<input checked="" type="checkbox"/>	2 x 1 L amber glass; 4°C						
TCL PCBs	<input checked="" type="checkbox"/>	2 x 1 L amber glass; 4°C						
TAL Metals + Hg (& filtered)	<input checked="" type="checkbox"/>	2 x 1 L HDPE; HNO3 to pH < 2, 4°C						
Cyanide	<input checked="" type="checkbox"/>	1 x 1 L HDPE; NaOH to pH > 12, 4°C						
TSS	<input checked="" type="checkbox"/>	1 x 1 500 ml HDPE; 4°C						
Wet Chemistry		2 x 250 mL HDPE; HNO3; 1 x 250 mL HDPE H2SO4; 4 x 250 mL HDPE, 1 x 250 mL amber H2SO4						
COMMENTS/OBSERVATIONS								
<ul style="list-style-type: none"> - Wastewater samples collected from 0.0' - 0.3' interval using certified laboratory cleaned HDPE bottleware (disposable) - No. sample collected is poured at slow rate to prevent volatilization 								
B. Siedlak (NYCDEP) <i>[Signature]</i> Melissa Fally + Brett Styli (GEI) <i>[Signature]</i> Sampler Signature/Date <i>[Signature]</i> 7/13/10								

~ On Nevins St. (curb) at the end of President St.

Reviewed by *[Signature]*

Date 7/19/10

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	Michael Murphy Mary Velasquez (m)	Station ID:	RH-037					
Subcontractor/Crew:	Traffic Management	Time:	1610					
		Water Depth:	8.8 - 9.0					
		Tide:	Low					
		Weather:	Overcast 70°-humid					
CSO Wastewater Sample ID:	GC-SWR037-WW-1	Sample Depth (below top surface)	0.2 ft					
Wet or Dry Weather Event:	Wet	Sample Time:	1615					
Number of Sampling Attempts:	10							
Problems During Collection:	NO Sediment Sample Collected							
QA/QC Sample IDs:	QC SAMPLE DATA							
NONE	DUP _____	MS/MSD _____						
SURFACE WATER DATA & CONDITIONS								
DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)	ORP (mV)	Comments	
5.14	6.83	23.23	0.3	0.664	486	78	white / cloudy	
Floating Debris (describe):	Observed - Fluffy, sooty							
Water Color:	White - Cloudy							
Clarity:	White / Cloudy							
Turbidity:	White / Cloudy							
Sheen:	None							
Sample Analytical Parameters:	Bottleware/Preservation:							
TCL VOCs	✓	5x 40 mL VOA vials, no headspace; HCL to pH <2; 4°C						
TCL SVOCs	✓	2 x 1 L amber glass; 4°C						
TCL Pesticides	✓	2 x 1 L amber glass; 4°C						
TCL PCBs	✓	2 x 1 L amber glass; 4°C						
TAL Metals + Hg (& filtered)	✓	2 x 1 L HDPE; HNO3 to pH < 2, 4°C						
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C						
TSS	✓	1 x 1500 ml HDPE; 4°C						
Wet Chemistry		2 x 250 ml HDPE; HNO3; 1 x 250 ml HDPE H ₂ SO ₄ ; 4 x 250 ml HDPE, 1 x 250 ml amber H ₂ SO ₄						
COMMENTS/OBSERVATIONS								
<ul style="list-style-type: none"> - Wastewater samples collected from 0.0' - 0.5' interval using certified laboratory cleaned HDPE bottleware (disposable) - VOC sample collected & placed at slow rate to prevent volatilization 								
<p style="text-align: center;">Bisland (m)</p> <p>Frank Sotirov (NYCDEP) Mattie Galter + Brett Still (GGI) provide oversight</p>								
Sampler Signature/Date	2-9 7/13/10							

- On Nevins at the end of Sackett St. (in front of private entrance)

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	James Bolag / CHP in H77 M. Ke Pantilino / HDR Matt Papuce / Traffic management		Station ID: RH031 Time: 1215 9/28/10 Water Depth: 11.6 - 15.3 Tide: High Weather: cloudy humid 70's				
Subcontractor/Crew:							
CSO Sample ID:	G6 SW RH 031 -WW-2		Grab Penetration 1 ft Sample Time: 1230				
Wet or Dry Event:	wet						
Number of Sampling Attempts:	5						
Problems During Collection:	None						
QC SAMPLE DATA							
QA/QC Sample IDs:	<input checked="" type="checkbox"/> NONE DUP _____ , MS/MSD _____						
SURFACE WATER DATA & CONDITIONS							
DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)	ORP (mV)	Comments
2.34	6.89	23.95	0.7	1.35	449	41	none
Floating Debris (describe):	floatable log, leaf/organic matter, white specs						
Water Color:	cloudy brown						
Clarity:	low						
Turbidity:	high						
Sheen:	none						
Sample Analytical Parameters:	Bottles/ware/Preservation:						
TCL VOCs	<input checked="" type="checkbox"/>						
TCL SVOCs	<input checked="" type="checkbox"/>						
TCL Pesticides	<input checked="" type="checkbox"/>						
TCL PCBs	<input checked="" type="checkbox"/>						
TAL Metals + Hg (Filtered)	<input checked="" type="checkbox"/>						
Cyanide	<input checked="" type="checkbox"/>						
TSS	<input checked="" type="checkbox"/>						
Wet Chemistry	<input type="checkbox"/>						
5x 40 mL vials/TerraCore with stir bar, 1-40 mL vial/full; 4°C 2 X 1L amber glass 4°C 2 X 1L amber glass 4°C 2 X 1L amber glass 4°C 2X1L HDPE, HN03 to PH < 2, 4°C 2 x 1L HDPE, NaOH to PH > 12, 4°C 1X 1 500ml HDPE, 4°C Various							
COMMENTS/OBSERVATIONS							
Low water level dropping, GEF collecting split samples but higher than dry weather conditions							
Sampler Signature/Date	J.B. 9/28/10						

Reviewed by _____ Date 10/24/10

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: James Balas / CDM Station ID: RH035
Subcontractor/Crew: Mike Pantliang / Matt Papak / HCR Time: 145 9/28/10
Traffic Management Water Depth: 4.75
Tide: high
Weather: Rain - heavy - windy 70°

CSO Sample ID: GC-SW RH035-WW-2 Grab Penetration: 1 ft Sample Time: 1155

Wet or Dry Event: wet

Number of Sampling Attempts: 5 - using 3 liter container

Problems During Collection: none

QC SAMPLE DATA

QA/QC Sample IDs:

NONE

DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)	ORP (mV)	Comments
6.15	7.15	23.6	.1	344	209	81	none

Floating Debris (describe): leaves, raw sewage, garbage, floatables

Water Color: Cloudy brown

Clarity: Poor

Turbidity: high

Sheen: None

Sample Analytical Parameters:

TCL VOCs	X
TCL SVOCs	X
TCL Pesticides	X
TCL PCBs	X
TAL Metals + Hg (Filtered)	X
Cyanide	X
TSS	X
Wet Chemistry	

Bottleware/Preservation:

5x 40 mL vials/TerraCore with stir bar, 1-40 mL vial, full; 4°C
2 X 1L amber glass 4°C
2 X 1L amber glass 4°C
2 X 1L amber glass 4°C
2X1L HDPE, HN03 to PH < 2, 4°C
2 x 1L HDPE, NaOH to PH > 12, 4°C
1X 1 500ml HDPE, 4°C
Various

COMMENTS/OBSERVATIONS

water flowing at high rate

Sampler Signature/Date

DMB 9/28/10

Reviewed by 

Date 10/12/10

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	James Balcer Matt P. / HDR Mike P. Traffic management		Station ID:	PHH006			
Subcontractor/Crew:			Time:	0720 9/30/10			
			Water Depth:	18.0 - Current too high to tide: tap bottom			
			Weather:	drizzling / overcast			
CSO Sample ID:	GC-SWRH006-WW-3		Grab Penetration:	0-1 ft	Sample Time:	0725	
Wet or Dry Event:	Wet						
Number of Sampling Attempts:	9						
Problems During Collection:	Traffic management → buckets breaking due to fast current						
QC SAMPLE DATA							
QA/QC Sample IDs:	<input checked="" type="checkbox"/> NONE <input type="checkbox"/> DUP <input type="checkbox"/> MS/MSD						
SURFACE WATER DATA & CONDITIONS							
DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)	ORP (mV)	Comments
8.72	5.60	21.26	23.2	5561	275	333	
Floating Debris (describe): <input checked="" type="checkbox"/> None floatables, white particles, leaf litter							
Water Color: brownish gray							
Clarity: low							
Turbidity: high							
Sheen: none							
Sample Analytical Parameters:				Bottleware/Preservation:			
TCL VOCs	<input checked="" type="checkbox"/>	5x 40 mL vials/TerraCore with stir bar, 1-40 mL vial full; 4°C					
TCL SVOCs	<input checked="" type="checkbox"/>	2 X 1L amber glass 4°C					
TCL Pesticides	<input checked="" type="checkbox"/>	2 X 1L amber glass 4°C					
TCL PCBs	<input checked="" type="checkbox"/>	2 X 1L amber glass 4°C					
TAL Metals + Hg (Filtered)	<input checked="" type="checkbox"/>	2X1L HDPE, HN03 to PH < 2, 4°C					
Cyanide	<input checked="" type="checkbox"/>	2 x 1L HDPE, NaOH to PH > 12, 4°C					
TSS	<input checked="" type="checkbox"/>	1X 1500ml HDPE, 4°C					
Wet Chemistry	<input checked="" type="checkbox"/>	Various					
COMMENTS/OBSERVATIONS							
Current at high rate - breaking up GFI split sampling							
Sampler Signature/Date	 9/20/10						

Reviewed by 

Date 10/21/10

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	<u>James Balas</u>		Station ID:	<u>0H007</u>		
Subcontractor/Crew:	<u>Mike P</u>		Time:	<u>0805 9/30/10</u>		
	<u>Matt P</u>		Water Depth:	<u>5.93</u>		
	<u>Traffic management</u>		Tide:	<u>Low</u>		
CSO Sample ID:	<u>GC-GW01+607-WW3</u>		Weather:	<u>drizzling 70's</u>		
Wet or Dry Event:	<u>Wet</u>		Grab Penetration	<u>0-1</u>	Sample Time:	<u>0810</u>
Number of Sampling Attempts:	<u>5</u>					
Problems During Collection:						
QC SAMPLE DATA						
QA/QC Sample IDs:	None DUP <u>71P-01</u> , MS/MSD _____					
SURFACE WATER DATA & CONDITIONS						
DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)	ORP (mV)
<u>9.22</u>	<u>6.93</u>	<u>22.45</u>	<u>.235</u>	<u>362</u>	<u>116</u>	<u>152</u>
						<u>5.6 pid reading</u>
Floating Debris (describe):	<u>Clear brown tint floatables</u>					
Water Color:	<u>Clear - beige tint</u>					
Clarity:	<u>clear</u>					
Turbidity:	<u>low</u>					
Sheen:	<u>present</u>					
Sample Analytical Parameters:	Bottleware/Preservation:					
TCL VOCs	<input checked="" type="checkbox"/>					
TCL SVOCs	<input checked="" type="checkbox"/>					
TCL Pesticides	<input checked="" type="checkbox"/>					
TCL PCBs	<input checked="" type="checkbox"/>					
TAL Metals + Hg (Filtered)	<input checked="" type="checkbox"/>					
Cyanide	<input checked="" type="checkbox"/>					
TSS	<input checked="" type="checkbox"/>					
Wet Chemistry	<input checked="" type="checkbox"/>					
COMMENTS/OBSERVATIONS						
<u>Chemical odor present</u>						
<u>Ferrous Iron = 0.0 mg/l</u>						
Sampler Signature/Date	<u>James Balas / J.B.</u>					
	<u>9/30/10</u>					

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	<u>D. Reamer</u>		Station ID:	<u>RH - 031</u>	
Subcontractor/Crew:	<u>J. Balas</u> <u>Traffic Management Inc.</u>		Time:	<u>0616</u>	
			Water Depth:	<u>10.0'</u>	
			Tide:	<u>-</u>	
			Weather:	<u>Moderate rain</u>	
CSO Sample ID:	<u>GC-SWRH-031-ww-3</u>		Grab Penetration	<u>0.5</u>	ft
Wet or Dry Event:	<u>wet</u>		Sample Time:	<u>0616</u>	
Number of Sampling Attempts:	<u>~ 5</u>				
Problems During Collection:	<u>none</u>				
QC SAMPLE DATA					
QA/QC Sample IDs: <u>(NONE)</u> DUP _____, MS/MSD _____					
SURFACE WATER DATA & CONDITIONS					
DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)
<u>9.87</u>	<u>7.33</u>	<u>20.17</u>	<u>0.0</u>	<u>0.058</u>	<u>148</u>
					<u>189</u>
Floating Debris (describe): <u>Brown floatables, white debris</u>					
Water Color: <u>light brown</u>					
Clarity: <u>moderate</u>					
Turbidity: <u>148</u>					
Sheen: <u>none</u>					
Sample Analytical Parameters:			Bottleware/Preservation:		
TCL VOCs	<input checked="" type="checkbox"/>		5x 40 mL vials/TerraCore with stir bar, 1-40 mL vial, full; 4°C		
TCL SVOCs	<input checked="" type="checkbox"/>		2 X 1L amber glass 4°C		
TCL Pesticides	<input checked="" type="checkbox"/>		2 X 1L amber glass 4°C		
TCL PCBs	<input checked="" type="checkbox"/>		2 X 1L amber glass 4°C		
TAL Metals + Hg (Filtered)	<input checked="" type="checkbox"/>		2X1L HDPE, HNO ₃ to PH < 2, 4°C		
Cyanide	<input checked="" type="checkbox"/>		2 x 1L HDPE, NaOH to PH > 12, 4°C		
TSS	<input checked="" type="checkbox"/>		1X 1 500ml HDPE, 4°C		
Wet Chemistry			Various		
COMMENTS/OBSERVATIONS					
<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>					
Sampler Signature/Date	<u>D. Reamer</u> <u>10/1/10</u>				

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	<u>Dave Reamer > CH2M</u>		Station ID:	<u>RH - 033</u>			
Subcontractor/Crew:	<u>James Balas</u> <u>Traffic Management Inc.</u>		Time:	<u>0710 10/1/10</u>			
			Water Depth:	<u>5.6'</u>			
			Tide:	<u>-</u>			
			Weather:	<u>Moderate rain</u>			
CSO Sample ID:	<u>GC-SWRH-033-W-3</u>		Grab Penetration	<u>0.5</u>	Sample ft Time:	<u>0710</u>	
Wet or Dry Event:	<u>Wet</u>						
Number of Sampling Attempts:	<u>~5</u>						
Problems During Collection:	<u>none</u>						
QC SAMPLE DATA							
QA/QC SampleIDs:	None DUP _____ MS/MSD _____						
SURFACE WATER DATA & CONDITIONS							
DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)	ORP (mV)	Comments
<u>8.68</u>	<u>11.12</u>	<u>26.65</u>	<u>0.9</u>	<u>1.79</u>	<u>295</u>	<u>-37</u>	
Floating Debris (describe):	<u>some floatables + paper</u>						
Water Color:	<u>U. light + brown</u>						
Clarity:	<u>- moderate</u>						
Turbidity:	<u>high</u>						
Sheen:	<u>none</u>						
Sample Analytical Parameters:	Bottles/Preservation:						
TCL VOCs	<input checked="" type="checkbox"/> 5x 40 mL vials/TerraCore with stir bar, 1-40 mL vial, full; 4°C						
TCL SVOCs	<input checked="" type="checkbox"/> 2 X 1L amber glass 4°C						
TCL Pesticides	<input checked="" type="checkbox"/> 2 X 1L amber glass 4°C						
TCL PCBs	<input checked="" type="checkbox"/> 2 X 1L amber glass 4°C						
TAL Metals + Hg (Filtered)	<input checked="" type="checkbox"/> 2X1L HDPE, HN03 to PH < 2, 4°C						
Cyanide	<input checked="" type="checkbox"/> 2 x 1L HDPE, NaOH to PH > 12, 4°C						
TSS	<input checked="" type="checkbox"/> 1X 1 500ml HDPE, 4°C						
Wet Chemistry	<input checked="" type="checkbox"/> Various						
COMMENTS/OBSERVATIONS							
<u>- Moderate / heavy rain still occurring, water level in sewer is high.</u>							
Sampler Signature/Date	<u>10/1/10</u>						

**CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York**

Samplers/Inspectors:	<u>D. Reaver</u> <u>J. Banks</u>		Station ID:	<u>RH-034</u>	
Subcontractor/Crew:	<u>Traffic Management Inc</u>		Time:	<u>0900</u>	
			Water Depth:	<u>~20'</u>	
			Tide:		
			Weather:		
CSO Sample ID:	<u>GC-SW RH-0341-WW-3</u>		Grab Penetration	<u>Composite</u> <u>~20' 36 ft</u>	Sample Time:
Wet or Dry Event:	<u>wet</u>		<u>0900</u>		
Number of Sampling Attempts:	<u>~5</u>				
Problems During Collection:	<u>none</u>				
QC SAMPLE DATA					
QA/QC Sample IDs:	DUP _____, MS/MSD _____				
<u>NONE</u>					
SURFACE WATER DATA & CONDITIONS					
DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)
Floating Debris (describe): <u>Brown floatables + leaves</u>					
Water Color: <u>m. brown</u>					
Clarity: <u>poor</u>					
Turbidity: <u>—</u>					
Sheen: <u>—</u>					
Sample Analytical Parameters:			Bottleware/Preservation:		
TCL VOCs	<input checked="" type="checkbox"/>		5x 40 mL vials/TerraCore with stir bar, 1-40 mL vial, full; 4°C		
TCL SVOCs	<input checked="" type="checkbox"/>		2 X 1L amber glass 4°C		
TCL Pesticides	<input checked="" type="checkbox"/>		2 X 1L amber glass 4°C		
TCL PCBs	<input checked="" type="checkbox"/>		2 X 1L amber glass 4°C		
TAL Metals + Hg (Filtered)	<input checked="" type="checkbox"/>		2X1L HDPE, HN03 to PH < 2, 4°C		
Cyanide	<input checked="" type="checkbox"/>		2 x 1L HDPE, NaOH to PH > 12, 4°C		
TSS	<input checked="" type="checkbox"/>		1X 1 500ml HDPE, 4°C		
Wet Chemistry	<input checked="" type="checkbox"/>		Various		
COMMENTS/OBSERVATIONS					
<u>- ISCO Sampler #2 stopped working over night. Sample collected from ISCO Sampler #1 which was collected over 24 hours</u>					
<u>- water quality readings not collected due to limited sample volume</u>					
Sampler Signature/Date <u>T. Banks</u> <u>10-11-10</u>					

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: D. Reamer
J. Balis
Subcontractor/Crew: Traffic Management Inc.

Station ID: RH -035
Time: 0540
Water Depth: 0 (water flowing from manhole)
Tide: -
Weather: Heavy Rain

CSO Sample ID: GC-SWRH-035-ww-03 Grab Penetration 0.5 ft Sample Time: 0540

Wet or Dry Event: wet

Number of Sampling Attempts: ~5

Problems During Collection: none

QC SAMPLE DATA

QA/QC Sample IDs:

(NONE)

DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)	ORP (mV)	Comments
<u>8.13</u>	<u>6.92</u>	<u>21.17</u>	<u>0.1</u>	<u>0.123</u>	<u>107</u>	<u>199</u>	

Floating Debris (describe): Brown floatables w/ paper

Water Color: light brown

Clarity: moderate

Turbidity: low

Sheen: none

Sample Analytical Parameters:

<input checked="" type="checkbox"/>	TCL VOCs
<input checked="" type="checkbox"/>	TCL SVOCs
<input checked="" type="checkbox"/>	TCL Pesticides
<input checked="" type="checkbox"/>	TCL PCBs
<input checked="" type="checkbox"/>	TAL Metals + Hg (Filtered)
<input checked="" type="checkbox"/>	Cyanide
<input checked="" type="checkbox"/>	TSS
<input checked="" type="checkbox"/>	Wet Chemistry

Bottleware/Preservation:

5x 40 mL vials/TerraCore with stir bar, 1-40 mL vial, full; 4°C
2 X 1L amber glass 4°C
2 X 1L amber glass 4°C
2 X 1L amber glass 4°C
2X1L HDPE, HNO₃ to PH < 2, 4°C
2 x 1L HDPE, NaOH to PH > 12, 4°C
1X 1 500ml HDPE, 4°C
Various

COMMENTS/OBSERVATIONS

- water flow was flowing out of man hole cover

Sampler Signature/Date J.R. Reamer

10-1-10

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	<u>P. Beamer > CH2M Hill</u>		Station ID:	<u>RH-036</u>			
Subcontractor/Crew:	<u>J. Balas</u> <u>Traffic Management Inc.</u>		Time:	<u>0820</u>			
			Water Depth:	<u>4.5'</u>			
			Tide:				
			Weather:	<u>Moderate rain</u>			
CSO Sample ID:	<u>GC-SWRH-036-ww-3</u>		Grab Penetration	<u>0.5</u>	ft	Sample Time:	<u>0820</u>
Wet or Dry Event:	<u>Wet</u>						
Number of Sampling Attempts:	<u>1</u>						
Problems During Collection:	<u>none</u>						
QC SAMPLE DATA							
QA/QC Sample IDs: <u>NONE</u> DUP _____, MS/MSD _____							
SURFACE WATER DATA & CONDITIONS							
DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)	ORP (mV)	Comments
<u>16.20</u>	<u>7.69</u>	<u>19.53</u>	<u>0.1</u>	<u>0.143</u>	<u>101</u>	<u>255</u>	
Floating Debris (describe): <u>Some sediment observed</u>							
Water Color: <u>v. light brown</u>							
Clarity: <u>moderate</u>							
Turbidity: <u>low</u>							
Sheen: <u>not observed</u>							
Sample Analytical Parameters:				Bottleware/Preservation:			
TCL VOCs	<input checked="" type="checkbox"/>			5x 40 mL vials/TerraCore with stir bar, 1-40 mL vial, full; 4°C			
TCL SVOCs	<input checked="" type="checkbox"/>			2 X 1L amber glass 4°C			
TCL Pesticides	<input type="checkbox"/>			2 X 1L amber glass 4°C			
TCL PCBs	<input type="checkbox"/>			2 X 1L amber glass 4°C			
TAL Metals + Hg (Filtered)	<input type="checkbox"/>			2X1L HDPE, HNO ₃ to pH < 2, 4°C			
Cyanide	<input checked="" type="checkbox"/>			2 x 1L HDPE, NaOH to pH > 12, 4°C			
TSS	<input checked="" type="checkbox"/>			1X 1500ml HDPE, 4°C			
Wet Chemistry	<input checked="" type="checkbox"/>			Various			
COMMENTS/OBSERVATIONS							
<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>							
Sampler Signature/Date	<u>J. Balas</u> <u>10/1/10</u>						

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	<u>D. Reamer > CH2M</u>		Station ID:	<u>RH - 037</u>		
Subcontractor/Crew:	<u>J. Balce</u> <u>Traffic Management Inc.</u>		Time:	<u>0750</u>		
			Water Depth:	<u>6.4'</u>		
			Tide:			
			Weather:	<u>Moderate to heavy rain</u>		
CSO Sample ID:	<u>GC - RH - 037 - WW - 3</u>		Grab Penetration	<u>0.5</u>	Sample Time:	<u>0750</u>
Wet or Dry Event:	<u>Wet</u>					
Number of Sampling Attempts:	<u>- 5</u>					
Problems During Collection:	<u>None</u>					
QC SAMPLE DATA						
QA/QC SampleIDs:	<input checked="" type="checkbox"/> <u>NONE</u> DUP _____, MS/MSD _____					
SURFACE WATER DATA & CONDITIONS						
DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)	ORP (mV)
<u>10.88</u>	<u>7.98</u>	<u>19.86</u>	<u>0.1</u>	<u>0.170</u>	<u>217</u>	<u>143</u>
Floating Debris (describe): <u>none noticed</u>						
Water Color: <u>cloudy, light brown</u>						
Clarity: <u>cloudy, poor</u>						
Turbidity: <u>moderate</u>						
Sheen: <u>- none</u>						
Sample Analytical Parameters:	Bottleware/Preservation:					
TCL VOCs	<input checked="" type="checkbox"/>					
TCL SVOCs	<input checked="" type="checkbox"/>					
TCL Pesticides	<input checked="" type="checkbox"/>					
TCL PCBs	<input checked="" type="checkbox"/>					
TAL Metals + Hg (Filtered)	<input checked="" type="checkbox"/>					
Cyanide	<input checked="" type="checkbox"/>					
TSS	<input checked="" type="checkbox"/>					
Wet Chemistry	<input checked="" type="checkbox"/>					
COMMENTS/OBSERVATIONS						
<p><u>- Rain increasing while sampling. Original water depth = 8.4'</u> <u>but rain caused water level to rise 2' steadily while</u> <u>sampling</u></p>						
Sampler Signature/Date	<u>Kirk 10/11/10</u>					

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	<u>D.R. Reamer > CH2M</u>		Station ID:	<u>RH-038</u>			
Subcontractor/Crew:	<u>Traffic Management Inc.</u>		Time:	<u>0730</u>			
			Water Depth:	<u>9.01</u>			
			Tide:	<u>-</u>			
			Weather:	<u>Moderate to light rain</u>			
CSO Sample ID:	<u>GC-SWRH-038-WW-3</u>		Grab Penetration	<u>0.5</u>	Sample Time:	<u>0730</u>	
Wet or Dry Event:	<u>wet</u>						
Number of Sampling Attempts:	<u>~5</u>						
Problems During Collection:	<u>none</u>						
QC SAMPLE DATA							
QA/QC Sample IDs:							
<u>NONE</u>	DUP _____		MS/MSD _____				
SURFACE WATER DATA & CONDITIONS							
DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)	ORP (mV)	Comments
<u>7.31</u>	<u>9.05</u>	<u>20.51</u>	<u>0.2</u>	<u>0.338</u>	<u>86.1</u>	<u>73</u>	
Floating Debris (describe): <u>Brown floatables, white objects</u>							
Water Color: <u>light brown</u>							
Clarity: <u>Moderate</u>							
Turbidity: <u>low</u>							
Sheen: <u>Slight "film" present</u>							
Sample Analytical Parameters:				Bottleware/Preservation:			
TCL VOCs	<input checked="" type="checkbox"/>	5x 40 mL vials/TerraCore with stir bar, 1-40 mL vial/full, 4°C					
TCL SVOCs	<input checked="" type="checkbox"/>	2 X 1L amber glass 4°C					
TCL Pesticides	<input checked="" type="checkbox"/>	2 X 1L amber glass 4°C					
TCL PCBs	<input checked="" type="checkbox"/>	2 X 1L amber glass 4°C					
TAL Metals + Hg (Filtered)	<input checked="" type="checkbox"/>	2X1L HDPE, HN03 to PH < 2, 4°C					
Cyanide	<input checked="" type="checkbox"/>	2 x 1L HDPE, NaOH to PH > 12, 4°C					
TSS	<input checked="" type="checkbox"/>	1X 1500ml HDPE, 4°C					
Wet Chemistry	<input checked="" type="checkbox"/>	Various					
COMMENTS/OBSERVATIONS							
<u>Rain stopped at 0737, resumed rain at 0745</u> <u>-water level in sewers is still high</u>							
Sampler Signature/Date	<u>D.R. Reamer</u> <u>10/1/10</u>						

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	<u>D. Regan > CH2M</u>		Station ID:	<u>04-005</u>			
Subcontractor/Crew:	<u>J. Balas</u> <u>Traffic Management Inc.</u>		Time:	<u>0840</u>			
			Water Depth:	<u>11. 8'</u>			
			Tide:				
			Weather:	<u>light rain</u>			
CSO Sample ID:	<u>GC-SW04-005-ww-3</u>		Grab Penetration	<u>0.5</u>	ft	Sample Time:	<u>0840</u>
Wet or Dry Event:	<u>wet</u>						
Number of Sampling Attempts:	<u>~5</u>						
Problems During Collection:	<u>none</u>						
QC SAMPLE DATA							
QA/QC Sample IDs: <u>(NONE)</u> DUP _____, MS/MSD _____							
SURFACE WATER DATA & CONDITIONS							
DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ³)	Turbidity (NTU)	ORP (mV)	Comments
<u>16.63</u>	<u>7.44</u>	<u>19.78</u>	<u>0.1</u>	<u>0.155</u>	<u>85.6</u>	<u>271</u>	
Floating Debris (describe): <u>cloudy no floatables observed</u>							
Water Color: <u>cloudy</u>							
Clarity: <u>good</u>							
Turbidity: <u>low</u>							
Sheen: <u>none observed</u>							
Sample Analytical Parameters:				Bottleware/Preservation:			
TCL VOCs	<input checked="" type="checkbox"/>			5x 40 mL vials/TerraCore with stir bar, 1-40 mL vial/full; 4°C			
TCL SVOCs	<input checked="" type="checkbox"/>			2 X 1L amber glass 4°C			
TCL Pesticides	<input checked="" type="checkbox"/>			2 X 1L amber glass 4°C			
TCL PCBs	<input checked="" type="checkbox"/>			2 X 1L amber glass 4°C			
TAL Metals + Hg (Filtered)	<input checked="" type="checkbox"/>			2X1L HDPE, HN03 to PH < 2, 4°C			
Cyanide	<input checked="" type="checkbox"/>			2 x 1L HDPE, NaOH to PH > 12, 4°C			
TSS	<input checked="" type="checkbox"/>			1X 1 500ml HDPE, 4°C			
Wet Chemistry	<input checked="" type="checkbox"/>			Various			
COMMENTS/OBSERVATIONS							
<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>							
Sampler Signature/Date	<u>J. Balas</u> <u>10-1-10</u>						