

Appendix D

Field Documentation

D-06 – Groundwater Sampling Field Forms

**USEPA Groundwater Sampling Field
Forms**

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Low-Flow Groundwater Sampling: Field Data Sheet

Page 1 of 2

Well Number:	MW-3S	Site: Gowanus Canal Remedial Investigation	
Field Crew:	R. Clemen, M. Murphy, B. La	Date: 7/12/10 Project #: 395863	
Well Depth (ft.):	14.96	Purge Methodology:	Diameter Gal. Per Foot
DTW (ft.):	4.03	lowflow/wi	2" .163
Water Column (ft.):	10.93	Ground fog pump	3" .367
Well Diameter (in.):	2"	Water Quality Meter:	4" .653
Gal. per ft.:	0.163		
Well Volume (gal.):	1.78 gal	D-52	
Depth of Screen (ft.):	14.96 - 4.03	Habitat: TID	

0.5g/t

Time	DTW (ft)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Lg Month	Color/Odor
Initial	<0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%		
2.12 1 VOL.	1021	4.29	200	0.6	6.47	24.57	33.9	3	1.85	26.3	clear; sulfur smell & floating solids (black)
2.10 2 VOL.	1026	4.13	325	.7	7.05	24.68	35.0	-46	1.42	3.0	SAA
2.10 3 VOL.	1031	4.14	325	1.0	7.09	24.92	35.1	-55	1.30	3.79	clear/no odor
2.10 4 VOL.	1036	4.14	325	1.3	7.19	24.45	35.0	-79	1.32	2.11	clear/no odor
2.11 5 VOL.	1041	4.48	325	1.6	7.25	25.78	35.0	-84	1.03	1.54	clear/no odor
2.12 6 VOL.	1046	4.58	325	1.8	7.28	25.84	35.2	-90	1.47	1.76	clear/no odor
2.12 7 VOL.	1051	4.61	350	2.2	7.33	24.86	35.2	-102	1.40	0.94	clear/no odor
2.11 8 VOL.	1056	4.72	350	2.9	7.37	24.84	35.3	-106	1.17	0.47	SAA
2.11 9 VOL.	1101	4.78	250	3.1	7.38	25.44	35.1	-114	1.23	0.83	SAA
2.11 10 VOL.	1106	4.84	250	3.3	7.40	25.67	35.0	-128	0.98	1.10	SAA
2.03 Post-Purge (RC)	1111	4.95	250	3.5	7.40	26.20	34.9	-138	0.80	0.99	SAA
	1116	5.04	250	3.7	7.41	26.42	34.7	-147	0.61	1.10	SAA

Remarks: Pump Intake Depth:

9.96'

Control Box Setting (Hz):

Development: Sampling: (Sample at 100-250 ml/min)

56.00

Ferrous Iron - 403 mg/L
12/15 7/13/10

Start time: 1020

1046: 57.7

9.96' = mid pt. of screen

1057: 57.3 + 100 + 57.00 (RC)

PID: 0.5 ppm; Note: High tide / high-mid tide at start of

SAMPLING

Sampling, dropping during purge

Depth to Water Before Sampling: 4.03'

Sample Methodology: 1 SP w/ ground fog

Sample Name: GC-MW035 QC Sample: None

Sample Date/Time: 7/12/10 / 1200

Sampler / Signature: R. Clemen 1/21 DR

Filtered Metals Collected: 61 N Filter Size: 10-40 μm 0.45 micron filters

Sample Observations: none

Parameters: VOC/GOC/PCB/Pest/metals+CN/Filtered metals/geochimistry

Note: No lock on well cap/j-plug

(DR)

Low-Flow Groundwater Sampling: Field Data Sheet

Page 2 of 2

Well Number: MW-38		Site: Gowanus Canal Remedial Investigation								
Field Crew:		Date: 7/12/10 Project #: 395863								
Well Depth (ft.): DTW (ft.): Water Column (ft.): Well Diameter (in.): Gal. per ft.: Well Volume (gal.): Depth of Screen (ft.):		Purge Methodology: <i>See page 1</i>	Diameter 2" 3" 4"	Gal. Per Foot .163 .367 .653	Diameter 5" 6" 8"	Gal. Per Foot 1.020 1.469 2.611				
Field Parameters										
Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Color/Odor
<i>Yo Sult</i>		Purge at 200-500		+/- 0.1		+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	
2.06 Initial	1121	5.10	250	3.9	7.42	26.67	34.5	-157	0.40	1.59 SAA
2.06 1 VOL.	1120	5.22	220	4.0	7.43	27.14	34.3	-172	0.15	2.60 SAA
2.06 2 VOL.	1131	5.29	200	4.1	7.44	27.30	34.3	-186	0.00	2.80 SAA
2.06 3 VOL.	1130	5.38	200	4.2	7.46	27.48	34.1	-221	0.00	3.56 SAA
2.05 4 VOL.	1141	3.43	<200	4.3	7.49	27.42	34.3	-252	0.00	7.63 SAA
2.04 5 VOL.	1140	5.63	200	4.5	7.49	27.63	34.0	-266	0.00	5.45 SAA
6 VOL.	1151	5.68	200	3.0	7.47	26.13	33.9	-256	0.00	3.16 SAA
7 VOL.		(RC)								
8 VOL.										
9 VOL.										
10 VOL.										
Post-Purge	11210	6.05			7.53	26.15	31.9	-248	0.00	6.81
Remarks:	Pump Intake Depth:		Control Box Setting (Hz): Development			Sampling: (Sample at 100-250 ml/min)				
59.36 (1134)										
<i>Note: Sample collected w/o reaching full stabilization of parameters per consult w/ A. Judah & D. Reamer. Location of well next to canal is heavily influenced by tide, which was dropping during pur</i>										
SAMPLING										
Depth to Water Before Sampling:										
Sample Methodology:										
Sample Name:		QC Sample:								
Sample Date/Time: 7/12/10 / 1200										
Sampler / Signature:		<i>* See page 1</i>								
Filtered Metals Collected: Y / N		Filter Size:								
Sample Observations:										
Parameters:										

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	M W - 3 I		Site: Gowanus Canal Remedial Investigation																					
Field Crew:	M. Murphy, J. Belas, R. Clemens		Date: 7/12/10 Project #: 395863																					
Well Depth (ft.):	43.23	Purge Methodology:	<table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr> <td>Diameter</td> <td>Gal. Per Foot</td> <td>Diameter</td> <td>Gal. Per Foot</td> </tr> <tr> <td>2"</td> <td>.163</td> <td>5"</td> <td>1.020</td> </tr> <tr> <td>3"</td> <td>.367</td> <td>6"</td> <td>1.469</td> </tr> <tr> <td>4"</td> <td>.653</td> <td>8"</td> <td>2.611</td> </tr> </table>						Diameter	Gal. Per Foot	Diameter	Gal. Per Foot	2"	.163	5"	1.020	3"	.367	6"	1.469	4"	.653	8"	2.611
Diameter	Gal. Per Foot	Diameter	Gal. Per Foot																					
2"	.163	5"	1.020																					
3"	.367	6"	1.469																					
4"	.653	8"	2.611																					
DTW (ft.):	4.09	Low flow																						
Water Column (ft.):	32.14	w/ Grundfos																						
Well Diameter (in.):	2"	Water Quality Meter:																						
Gal. per ft.:	0.163																							
Well Volume (gal.):	638 Gf 12.23-38.23	Horiba U-52																						
Depth of Screen (ft.):	38.03																							
(P)																								
Field Parameters																								
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Color/Odor														
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	Clear														
Initial	1023	4.27	425	—	7.05	21.70	1.47	-99	2.29	NR														
(mm) -1 VOL	1028	4.32	425	1.25	7.29	20.40	1.52	-130	2.22	14														
(mm) -2 VOL	1033	4.39	425	1.80	7.33	19.87	1.60	-147	1.93	7.1														
(mm) -3 VOL	1038	4.44	325	2.40	7.33	19.71	1.63	-151	1.93	5.1														
(mm) -4 VOL	1043	4.53	325	2.90	7.33	19.47	1.65	-155	1.99	3.7														
(mm) -5 VOL	1048	4.50	325	3.25	7.34	19.65	1.64	-157	2.26	7.5														
(mm) -6 VOL	1053	4.50	325	3.60	7.34	19.71	1.64	-158	2.18	2.8														
(mm) -7 VOL	1058	4.50	325	4.0	7.34	19.67	1.64	-159	2.20	1.8														
(mm) -8 VOL	1103	4.50	200	—	Collect Sample																			
9 VOL																								
10 VOL																								
(mm) Post-Purge	1126	4.50	200	—	7.35	19.91	1.74	-147	0.77	2.5	Clear / no odor													
Remarks: Pump Intake Depth: 1230 7/12/10 Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)										0.8														
39.7 Ferrous Iron - 0.69 mg/L 55.20 Hz																								
Start time: 10:28										- well nested														
Note: Equip. blank collected from this pump										with MW-35														
39.73 = mid pt. of screen										- no lock														
DID: 1.0 ppm; No visible NAPL										VOC units had slight efflux														
SAMPLING																								
Depth to Water Before Sampling: 4.50' 6' to																								
Sample Methodology: Low Flow Sample Procedure - Teflon tubing - Grundfos Pump																								
Sample Name: GC-MW03I QC Sample: None																								
Sample Date/Time: 7/12/2010 1103																								
Sampler / Signature: J. M.																								
Filtered Metals Collected: <input checked="" type="checkbox"/> N Filter Size: 10 μm / 0.45 micron																								
Sample Observations: clear / no odor																								
Parameters: VOC / SVOC / PCB / PEST / Metals / Cu / F. / Hard metals																								

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-4S		Site: Gowanus Canal Remedial Investigation									
Field Crew: M. Murphy, R. Clemons, J. B. Los		Date: 7/12/10 Project #: 395863									
Well Depth (ft.): 13.25	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot						
DTW (ft.): 5.35	low flow w/ Grindos Pump	2"	.163	5"	1.020						
Water Column (ft.):		3"	.367	6"	1.469						
Well Diameter (in.): 2"		4"	.653	8"	2.611						
Gal. per ft.: 0.163	Water Quality Meter:										
Well Volume (gal.): 1,28	HoriDr U-SZ										
Depth of Screen (ft.): 3.25 - 13.25	Cone Hgt 2020										
Field Parameters											
Time	DTW (ft)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Color/Odor	
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	initial purge 2/2009 - floating solids	
Initial 1245	6.2	500	--	7.02	24.37	2.89	-82	0.76	50	tan - clear	
(m) 1 VOL	6.8	300	—	problem w/ flow rate						pump / pump	
(m) 2 VOL	7.7	200	0.75	7.02	23.86	2.68	-80	0.55	18	clear no odor	
(m) 3 VOL	7.6	200	1.5	7.00	25.94	2.65	-82	0.51			
(m) 4 VOL	7.7	200	1.7	—	pump stops						
(m) 5 VOL	7.4	50ml	—	Pump stop							
(m) 6 VOL	7.8	100ml	2.0	7.06	29.82	2.39	-79	1.15	15	Clear - no odor	
(m) 7 VOL	7.7	100	2.1	7.00	30.09	2.38	-79	0.79	6.2	clear - no odor	
(m) 8 VOL	7.65	100ml	2.2	6.99	30.15	2.35	-80	0.62	5.9	clear - no odor	
(m) 9 VOL	—	pump surge to intake - Left recharge -								w/ Andy Judd - 100ml	
(m) 10 VOL	7.25	100ml	2.3	7.08	23.95	3.10	-111	1.42	130	cloudy - no odor	
(m) Post-Purge	7.40	100ml	2.4	6.99	25.02	2.73	-99	0.75	95	cloudy - no odor	
Remarks: Pump Intake Depth:	Control Box Setting (Hz): Development:				Sampling: (Sample at 100-250 ml/min)						
8.25 ft Drop pump to 12.25				Purge - 95.40 Hz							
Ferrous Iron - 2.16 mg/L PID - 0.4 ppm 7/12/10 1800								* AS per AJ - lower pump to 12 above bottom of well + sample - going forward - pump float will be 12 above bottom - no float			
SAMPLING											
Depth to Water Before Sampling: 7.90											
Sample Methodology: Low flow Sample Procedure - Grindos Pump - Teflon tubing											
Sample Name: G.C. - MW04S QC Sample: N/A											
Sample Date/Time: 7/12/2010 1510											
Sampler / Signature: L - M											
Filtered Metals Collected: (Y/N) Filter Size: 0.45 um											
Sample Observations: clear - no odor											
Parameters: VOC, SVOC, metals, filtered metals, PCB, pesticides											

~~** See page 2 **~~

DR

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW - 4S (Page 2)		Site: Gowanus Canal Remedial Investigation								
Field Crew:		Date: 9/12/2010 Project #: 395863								
Well Depth (ft.): DTW (ft.): Water Column (ft.): Well Diameter (in.): Gal. per ft.: Well Volume (gal.): Depth of Screen (ft.):	Purge Methodology: <i>See Page 1</i>	Diameter 2" 3" 4"	Gal. Per Foot .163 .367 .653	Diameter 5" 6" 8"	Gal. Per Foot 1.020 1.469 2.611					
Field Parameters										
Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Color/Odor
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	
1425	7.50	100ml	2.5	6.90	24.53	2.52	-80	0.91	4S	cloudy - none
1430	7.69	100ml	2.6	6.86	25.18	2.31	-63	1.00	26	clear - none
1435	7.75	100ml	2.7	6.82	26.27	2.20	-49	1.12	20	clear - none
1440	7.80	100ml	2.8	6.85	25.87	2.11	-48	1.14	16	clear - none
1445	7.85	100ml	2.9	6.89	27.08	2.04	-50	1.02	12	clear - none
1450	7.89	100ml	3.0	6.92	27.71	2.02	-54	0.90	9.8	clear - none
1455	7.90	100ml	3.1	6.95	28.11	2.01	-59	0.78	10.0	clear - none
1500	7.90	100ml	3.2	6.95	28.13	2.00	-60	0.71	10.0	clear - none
1505	7.90	100ml	3.3	6.95	28.16	1.99	-61	0.70	8.9	clear - none
1510	7.90	100ml	~	collect sample						
1610	~7.90	100ml	~	6.98	28.34	2.36	-96	1.16	60	cloudy - none
Remarks: Pump Intake Depth:		Control Box Setting (Hz): Development:				Sampling: (Sample at 100-250 ml/min)				
SAMPLING										
Depth to Water Before Sampling:										
Sample Methodology:										
Sample Name:		QC Sample:								
Sample Date/Time:										
Sampler / Signature:										
Filtered Metals Collected: Y / N Filter Size:										
Sample Observations:										
Parameters:										

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: M4W4I		Site: Gowanus Canal Remedial Investigation								
Field Crew: D.J. / M. M.		Date: 7/12/10 Project #: 395863								
Well Depth (ft.): 39.33	Purge Methodology: LFSP w/ teflon tubing & ground fans	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot					
DTW (ft.): 6.12		2"	.163	5"	1.020					
Water Column (ft.): 33.22		3"	.367	6"	1.469					
Well Diameter (in.): 2"		4"	.653	8"	2.611					
Gal. per ft.: .163	Water Quality Meter: V52 → (9 moffle 2020 E)									
Well Volume (gal.): 5.4										
Depth of Screen (ft.):										
Field Parameters										
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Color/Odor
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	
1450	6.29	400	-	7.79	21.65	1,34	-153	0.0	2783	brown tint/none
1455	6.31	325	.5	7.85	20.88	1.37	-164	0.0	281	brown tint/none
1500	6.31	325	1.0	7.88	20.49	1.40	-170	0.0	119	clear/none
1505	6.32	325	1.6	7.96	19.25	1.45	-172	0.0	29412	brown tint/none
1510	6.32	325	2.0	7.97	18.89	1.42	-175	0.0	257	brown tint/none
1515	6.31	325	2.4	7.91	19.08	1.42	-178	0.0	32.5	clear/none
1520	6.32	325	3.0	7.98	19.03	1.39	-179	0.0	8.66	clear/none
1525	6.32	325	3.3	7.96	19.02	1.39	-179	0.0	6.27	clear/none
1530	6.32	325	3.8	7.98	19.03	1.38	-179	0.0	3.85	
1535	Collect sample									
		200								
1601	6.31	175	-	7.95	19.90	1.33	-164	0.0	33.1	clear/none
Remarks: Pump Intake Depth:		Control Box Setting (Hz):			Development:		Sampling: (Sample at 100-250 ml/min)			
36.8' BTFC										
					purge - 65.00					
					Sample - 63.70					
					Ferric Iron - 0.35 mg/L		1610 7/12/10			
SAMPLING										
Depth to Water Before Sampling: 6.31										
Sample Methodology: LFSP - teflon tubing + ground fans										
Sample Name: GC-M4W4I		QC Sample: none								
Sample Date/Time: 7/12/10 16:26										
Sampler / Signature: James Baig										
Filtered Metals Collected: (Y) N		Filter Size: 0.45 cm								
Sample Observations: brown tint clearing → no odor										
Parameters: VOC SVOC Pest PCB metals filtered metals										

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Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	Site: Gowanus Canal Remedial Investigation										
Field Crew:	Date: 7/20/10 Project #: 395663										
Well Depth (ft.): 12.9	Purge Methodology: Low flow	Diameter: 2"	Gal. Per Foot: .163	Diameter: 5"	Gal. Per Foot: 1.020						
DTW (ft.): 3.32	w/ tephlon tubing + gravel	3"	.367	6"	1.469						
Water Column (ft.): 9.6		4"	.663	8"	2.611						
Well Diameter (in.): 2											
Gal. per ft.: 0.163	Water Quality Meter:										
Well Volume (gal.): 1.56	452 Lamont 2020										
Depth of Screen (ft.):											
Field Parameters											
Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Initial Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
0925	3.19	-	0	6.85	21.22	5.22	-143	3.39	0.28	54.4	sl. yellow/brown
0940	-	180	0.3	6.83	21.99	4.95	-149	0.93	0.24	56.0	sl. yellow/brown
0945	4.03	-	0.5	6.83	26.09	3.56	-145	0.59	0.13	51.7	clear, slight odor
0950	-	-	~0.8	6.93	26.31	2.25	-172	0.47	0.11	27.6	clear
0955	4.00	150	~1	7.03	26.83	1.90	-172	0.49	0.16	41.8	"
1000	-	-	~1.2	7.08	27.65	1.71	-145	0.43	0.09	40.3	"
1005	-	-	~1.5	7.29	28.38	1.54	-160	0.47	0.08	51.1	"
1010	-	-	~1.8	7.51	28.98	1.35	-174	0.34	0.07	24.6	"
1015	4.07	160	~2	7.55	29.02	1.21	-173	0.32	0.06	13.2	"
1020	-	-	~2	7.57	29.53	1.15	-175	0.24	0.06	30.2	"
1025	-	-	~2.2	7.55	30.95	1.14	-174	0.23	0.06	31.0	"
1030	4.07	160	~2.5	7.55	31.03	1.13	-170	0.22	0.06	30.5	"
Remarks:	Pump Intake Depth:	Control Box Setting (Hz):	Development:	Sampling: (Sample at 100-250 ml/min)							
SAMPLING											
Depth to Water Before Sampling: 4.07											
Sample Methodology: ERM Low flow											
Sample Name: EMW 55 QC Sample: none											
Sample Date/Time: 7/20/10 10:35											
Sampler / Signature: [Signature]											
Filtered Metals Collected: Y N Filter Size: 15 mm											
Sample Observations: yellow brown → clear											
Parameters: TCL/TAL metals, VOR, SVOR, PCB, PEST											

JR

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW5A										Site: Gowanus Canal Remedial Investigation		
Field Crew:	Colin Mills/Tom Fowler										Date: 7/20/10 Project #: 395863		
Well Depth (ft.):	Purge DTW (ft.):	3.77	Methodology: Low Flow	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot						
Water Column (ft.):	34.56'	No product, no odor	2"	.163	5"	1.020							
Well Diameter (in.):	2"		3"	.367	6"	1.469							
Gal. per ft.:	0.163	Water Quality Meter:		4"	.653	8"	2.611						
Well Volume (gal.):	5 gal	MORIBA											
Depth of Screen (ft.):	24.56	U-5000											
Field Parameters													
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor		
Initial Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%			
0940	3.77	200	0	7.00	29.09	1.29	1	1.00	0.04	15.5	clear, slight yellow-green color		
0945	2.87	200	0.5	7.31	28.82	2.59	-170	0.00	0.09	35.0	..		
0950	3.90	250	0.75	7.14	22.87	3.50	-140	0.00	0.12	19.6	..		
0955	3.90	150	1	7.49	23.04	3.64	-143	0.00	0.13	21.8	..		
1000	3.89	125	1.25	7.50	21.15	3.62	-141	0.00	0.13	20.1	..		
1005	3.90	175	1.5	7.52	25.09	3.72	-146	0.00	0.14	12.1	..		
1010	3.90	175	1.75	7.63	21.69	3.76	-143	0.00	0.14	12.9	..		
1015	3.90	175	2	7.56	22.98	3.77	-142	0.00	0.14	9.57	..		
1020	3.91	175	2.3	7.56	23.41	3.73	-142	0.00	0.14	9.74	..		
1025	3.92	125	2.7	7.56	24.68	3.64	-143	0.00	0.13	8.16	..		
1030	3.92	125	3	7.56	25.75	3.61	-143	0.00	0.13	8.42	..		
1135	3.80	125	3.25	7.71	25.56	3.22	-120	0.00	0.11	9.45	..		
Remarks:	Pump Intake Depth:		Control Box Setting (Hz):		Development:		Sampling: (Sample at 100-250 ml/min)						
	32 ft		54.50 Hz				100 ml/min						
PDI Reading: 8.0 ppm													
SAMPLING													
Depth to Water Before Sampling:	3.92 ft												
Sample Methodology:	EPA Low Flow												
Sample Name:	GC-MW5I												
QC Sample:	1001P												
Sample Date/Time:	7/20/2010 @10:30												
Sampler / Signature:	Colin M.												
Filtered Metals Collected:	Ag, Ni (Filter Size: 0.45 micron)												
Sample Observations:	Several filters clogged and generated dust												
Parameters:	UDC, SVOC, PCB, VEST, Metals, Filtered Metals, Hg, Cr												

(DP)

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	625	Site: Gowanus Canal Remedial Investigation			
Field Crew:	MVP, CZ	Date: 7/20/10 Project #: 395863			
Well Depth (ft.):	320	Purge Methodology:	Diameter	Gal. Per Foot	Diameter
DTW (ft.):	3.25	LFSP w/ tephlon tubing + groundos	2"	.163	5"
Water Column (ft.):	9.51		3"	.367	6"
Well Diameter (in.):	2		4"	.653	8"
Gal. per ft.:	0.163	Water Quality Meter:			
Well Volume (gal.):	155	U5200			
Depth of Screen (ft.):	2.71	Carmont 2020			

Field Parameters											
Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	3.22	250	—	6.20	27.10	2,80	-710	3.43	0.15	94.2	
9:30	3.24	150	—	6.46	28.01	1.90	-127	1.16	0.09	47.5	
9:35	3.25	150	—	6.50	28.61	1.17	-125	0.93	0.06	33	
9:40	3.24	150	—	6.51	29.06	0.967	-126	0.82	0.05	35	
9:45	3.26	160	1.0	8.04	29.41	0.87	-128	0.72	0.04	28	
9:50	3.24	160	—	6.53	29.70	0.823	-130	0.65	0.04	16	
9:55	3.24	150	—	6.53	29.95	0.735	-130	1.02	0.04	18	
10:00	3.25	150	2.5	6.54	30.12	0.684	-133	0.57	0.03	7.2	
10:05	3.24	150	—	6.54	29.98	0.645	-135	0.49	0.03	10	
10:10	3.26	—	—	6.54	30.26	0.626	-137	0.44	0.03	11	
10:10	—	—	—	—	—	—	—	—	—	began sample collection	
11:37	—	300	—	6.58	26.04	0.625	-105	1.26	0.03	9.8	post-sampling

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

11.44 71

49.20 Hz

47.1

45.7

OD = 14.5

SAMPLING

Depth to Water Before Sampling:	3.26
Sample Methodology:	low flow pump
Sample Name:	GCR-MWGS
QC Sample:	none
Sample Date/Time:	7/20/10 1010 MVP, CZ
Sampler / Signature:	MVP
Filtered Metals Collected:	(Y) N
Filter Size:	0.45
Sample Observations:	—
Parameters:	DO, TDS, metals, DDT, PCB, Cd, —

DR

Page 1 of 2

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	13	Site: Gowanus Canal Remedial Investigation			
Field Crew:	WJD, CZ	Date:	7/20/10	Project #: 395863	
Well Depth (ft.):	35.74	Purge Methodology:	Diameter	Gal. Per Foot	Diameter
DTW (ft.):	4.98	LFSP -	2"	.163	5" 1.020
Water Column (ft.):	30.86	w Heplon	3"	.367	6" 1.469
Well Diameter (in.):	2	Jumping + groundfsl	4"	.663	8" 2.611
Gal. per ft.:	.163	Water Quality Meter:			
Well Volume (gal.):	5,80	U52			
Depth of Screen (ft.):	30.74	Lumotte 2020			

Field Parameters											
Time	DTW (ft)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Initial	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	
	9:30	5.03	350	~	7.81	18.97	19.1	-152	3.62	10	
	9:35	5.43	350	-	8.08	18.90	19.3	-135	2.36	1.01	10
	9:40	5.43	350	-	8.18	18.96	19.3	-133	2.08	1.01	22
	9:45	5.43	350	2.5	8.27	19.17	19.3	-134	1.70	1.01	16
	9:50	5.45	350	-	8.32	19.21	19.3	-135	1.42	1.01	12
	9:55	5.46	350	-	8.32	19.24	19.1	-135	1.17	1.00	11
	10:00	5.47	350	4	8.37	19.18	19.2	-137	0.93	1.00	14
	10:05	5.49	-	~	8.42	19.34	19.1	-139	0.69	0.99	25
	10:10	5.50	-	-	8.45	19.25	19.0	-141	0.51	0.99	15
Post-Purge	10:15	5.50	-	-	8.50	20.12	18.8	-143	0.29	0.98	15
	10:20	-	-	-	8.51	20.31	18.7	-145	0.15	0.98	8.4
	10:25	5.51	-	6	8.51	20.89	18.6	-146	0.04	0.96	15

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

33.24 62.10 Hz

PID Head Space = 0.9

SAMPLING											
Depth to Water Before Sampling:											
Sample Methodology: low flow pump											
Sample Name: MWGJ QC Sample: none											
Sample Date/Time: 7/28/10 10:35 MW, CZ											
Sampler / Signature: MWP, CZ											
Filtered Metals Collected: (Y) N Filter Size:											
Sample Observations: —											
Parameters: VOC, SVOC, PCB,pest, metals, filter metals											

DR

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 6.I		Site: Gowanus Canal Remedial Investigation									
Field Crew: MVP, CZ		Date: 7/20/10 Project #: 395863									
Well Depth (ft.): 35.74	Purge Methodology:	Diameter	Gal. Per Foot		Diameter	Gal. Per Foot					
DTW (ft.): 46.98		2"	.163		5"	1.020					
Water Column (ft.): 30.86	<i>Self purge</i>	3"	.367		6"	1.469					
Well Diameter (in.): 2		4"	.653		8"	2.611					
Gal. per ft.: .163	Water Quality Meter:										
Well Volume (gal.): 5.00											
Depth of Screen (ft.): 30.74											
Field Parameters											
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	10:30	5.51	6	8.54	20.94	18.6	-147	0.08	0.96	13	
	10:35	5.51	-	8.55	21.06	18.5	-148	0.01	0.96	18	
	11:36			8.27	24.39	17.8	-153	0.00	0.93	45	begin sample collection
	11:33	5.51	3.50	8	8.27	24.39	17.8	-153	0.00	0.93	post-sample
Post-Purge											
Remarks:	Pump Intake Depth:		Control Box Setting (Hz):			Development:		Sampling: (Sample at 100-250 ml/min)			
SAMPLING											
Depth to Water Before Sampling:	5.51										
Sample Methodology:	low flow pump										
Sample Name:	GC-MW6I										
Sample Date/Time:	7/20/10 1035										
Sampler / Signature:	<i>[Signature]</i>										
Filtered Metals Collected: (Y/N)	Filter Size: 0.45 µm										
Sample Observations:	Metal curtain turned blue during filter for										
Parameters:	U ₂₊ , Zn ²⁺ , metals, Diss Metals, Rest, P(Cr) ⁶⁺ , Cr ⁺										

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Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW - 75	Site: Gowanus Canal Remedial Investigation					
Field Crew:	EB, MB	Date: 7/20/10 Project #: 395863					
Well Depth (ft.):	13.24	Purge Methodology:					
DTW (ft.):	8.23	Low Flow	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot	
Water Column (ft.):	5.01		2"	.163	5"	1.020	
Well Diameter (in.):	2 in		3"	.367	6"	1.469	
Gal. per ft.:	0.163	Water Quality Meter:	4"	.653	8"	2.611	
Well Volume (gal.):	0.82	U-52					
Depth of Screen (ft.):	3.24						

Field Parameters											
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Initial	Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%
	9:55	11.06	350 ml/min	.1	6.31	24.95	38.2	94	1.83	2.45	24.6 Clear
	10:00	10.59	100 ml/min	.3	6.38	26.45	37.2	-16	1.32	2.36	20.3 Clear
	10:05	9.87	100 ml/min	.4	6.41	26.85	37.3	-38	1.24	2.36	13.5 Clear
	10:10	8.56	250 ml/min	.7	6.48	26.33	38.4	-74	1.16	2.44	13.9 clear, faint odor
	10:15	8.30	175 ml/min	.9	6.50	26.38	37.7	-128	.89	2.39	8.24 Clear
	10:20	X	175 ml/min	1.0	6.51	26.21	38.0	-142	.87	2.41	10.62 Clear
	10:25	X	200 ml/min	1.2	6.54	26.68	37.9	-178	.74	2.40	6.68 Clear
	10:30	X	150 ml/min	1.5	6.56	26.19	38.1	-214	.65	2.42	6.86 Clear
	10:35	X	225 ml/min	1.8	6.59	25.71	38.0	-290	.58	2.41	4.10 Clear
Post-Purge	10:40	X	225 ml/min	2.0	6.60	25.39	37.7	-285	.50	2.39	2.63 Clear
	10:45	X	225 ml/min	2.3	6.62	24.91	37.4	-276	.46	2.37	3.05 Clear
	10:50	X	225 ml/min	2.7	6.62	24.59	37.2	-287	.46	2.35	2.65 Clear

Remarks: Pump Intake Depth: 12.24 Control Box Setting (Hz): Development: 73.10 Sampling: (Sample at 100-250 ml/min) 250 ml/min

X: There was some kind of interference in my well, 3 different water level meters could not attain an accurate value.

PID - 2.5 ppm

SAMPLING											
Depth to Water Before Sampling:	X 7.02										
Sample Methodology:	Low flow / tube w/ 2" Gravelloc pump and Teflon lined tubing										
Sample Name:	GFC - MW 75 CC Sample:										
Sample Date/Time:	10:00										
Sampler / Signature:	Anne R. Michael Bristol										
Filtered Metals Collected:	<input checked="" type="checkbox"/> N Filter Size: 0.45										
Sample Observations:	250 mL/min										
Parameters:	VOC SVOC Pesticide Cyanide mercury metals PCB filtered metals										

(Signature)

SP

2 of 2

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-13	Site: Gowanus Canal Remedial Investigation						
Field Crew: FB, MR	Date: 7/20/10	Project #: 395863					
Well Depth (ft.):	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot		
DTW (ft.):		2"	.163	5"	1.020		
Water Column (ft.):		3"	.367	6"	1.469		
Well Diameter (in.):		4"	.653	8"	2.611		
Gal. per ft.:	Water Quality Meter:						
Well Volume (gal.):							
Depth of Screen (ft.):							

Field Parameters											
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial											
Post-Purge	11'50	250 ml/min	7	6.58	23.85	33.9	-320	39	2.15	1.25	Clear, coffee color / brown

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

SAMPLING											
Depth to Water Before Sampling:											
Sample Methodology:											
Sample Name: QC Sample:											
Sample Date/Time: * See first page											
Sampler / Signature:											
Filtered Metals Collected: Y / N Filter Size:											
Sample Observations:											
Parameters:											

6

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW-7I	Site: Gowanus Canal Remedial Investigation					
Field Crew:	E.B., mB	Date: 7/20/10 Project #: 395863					
Well Depth (ft.):	32.27	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot	
DTW (ft.):	3.99		2"	.163	5"	1.020	
Water Column (ft.):	28.28	Low Flow	3"	.367	6"	1.469	
Well Diameter (in.):	2 in		4"	.653	8"	2.611	
Gal. per ft.:	0.163	Water Quality Meter:					
Well Volume (gal.):	4,601						
Depth of Screen (ft.):	27.27	61-62 LaMotte 2020					

Field Parameters

Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
1010	4.42	120	0	6.57	20.23	7.56	-55	1.68	0.42	24	Petro-like odor
1015	4.60	225	0.2	6.69	20.18	8.41	-73	1.02	0.47	38	
1020	4.60	175	0.5	6.66	19.96	8.23	-85	0.57	0.46	30	
1025	4.59	160	0.8	6.65	20.74	8.13	-87	0.53	0.45	20	
1030	4.58	250	1.2	6.64	21.45	8.10	-88	0.58	0.45	12	
1035	4.88	250	1.5	6.65	20.12	8.05	-86	0.53	0.44	12	
1040	4.86	250	2.0	6.68	18.67	8.01	-84	0.50	0.44	13	
1045	4.81	250	2.3	6.65	19.25	7.71	-96	0.56	0.42	7.2	
1050	4.82	250	2.5	6.65	20.15	7.63	-99	0.46	0.42	6.0	
1055	4.80	250	2.6	6.66	20.41	7.60	-100	0.41	0.42	6.4	
Post-Purge	1215	4.68	150	30	6.98	18.60	7.93	-95	0.86	0.44	5.0 Petro-like odor.

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

29.77

60,40-94,61

61,90-62,30

Noted DNAPL on interface probe after TD measuremt. unsure of thickness

PID - 15.5 ppm off of phase.

SAMPLING

Depth to Water Before Sampling:	468
Sample Methodology:	Tube - low flow w/ 2" Grundfos pump and teflon lined tubing
Sample Name:	SC-MW7I
QC Sample:	None
Sample Date/Time:	7/20/10 1100
Sampler / Signature:	E. Brandt
Filtered Metals Collected:	B, N Filter Size: 0.45
Sample Observations:	sheen on water in sample bottles.
Parameters:	VOC, SVOC, Metals, Filtered metals, CN, Hg, PCB, Pest.

DWR

Low-Flow Groundwater Sampling: Field Data Sheet

PS 16/2

Well Number:	MW-8	Shallow	Site: Gowanus Canal Remedial Investigation								
Field Crew:	EB		Date:	7/20/10	Project #: 395863						
Well Depth (ft.):	12.84	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot					
DTW (ft.):	3.33	Low Flow	5"	.163	5"	1.020					
Water Column (ft.):	9.51		3"	.367	6"	1.469					
Well Diameter (in.):			4"	.653	8"	2.611					
Gal. per ft.:	0.163	Water Quality Meter:									
Well Volume (gal.):	1.6	hunkly U-52									
Depth of Screen (ft.):	2.84										
Field Parameters											
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Oder
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	12:50	3.27	250	5.5	7.94	21.70	1.94	-79	7.80	0.06	67.4
	12:55	9.09	125	<.5	7.26	24.55	1.58	-74	5.26	0.05	75.8
	13:00	3.97	150	5.5	7.30	25.64	1.49	-102	5.09	0.04	67.2
	13:05	4.08	150	<.5	7.22	26.47	1.44	-109	4.77	0.04	75.9
	13:10	3.98	170	1	7.23	26.81	1.40	-115	9.47	0.01	70.2
	13:15	3.94	80	1.2	7.31	22.82	1.37	-101	4.30	0.04	66.7
	13:20	4.0	140		7.31	27.16	1.37	-109	4.20	0.04	53.6
	13:25	4.19	150		7.35	27.31	1.37	-119	4.04	0.04	34.8
	13:30	4.26	150		7.40	27.36	1.34	-125	3.77	0.04	25.1
	13:35	4.32	150	2.5	7.45	27.36	1.30	-130	3.58	0.04	14.0
	13:40	4.22	150	2.5	7.46	27.35	1.29	-132	3.30	0.04	11.0
(Post-Purge)	14:50	4.89	>0	3.5	7.48	30.92	1.27	-102	0.00	0.04	16.0
Remarks:	Pump Intake Depth:			Control Box Setting (Hz):			Development:	Sampling: (Sample at 100-250 ml/min)			
	11.54			61.60				64.40 150 ml/min			
SAMPLING											
Depth to Water Before Sampling:	4.22										
Sample Methodology:	Tube - low flow w/ 2" Gravbox + Teflon lined tubing										
Sample Name:	GC - MW8S										
Sample Date/Time:	7/20/10 1350										
Sampler / Signature:	Ed Brandt EBB										
Filtered Metals Collected:	(X) N Filter Size: 0.45										
Sample Observations:											
Parameters:	VOC, SVOC, metals, Filtered Metals, PCB, PEST, Hg, CN										

Page 2 of 2

Low-Flow Groundwater Sampling: Field Data Sheet

Pg 2 of 2

Well Number:		Site: Gowanus Canal Remedial Investigation									
Field Crew:		Date: 7/10/10 Project #: 395863									
Well Depth (ft.): DTW (ft.): Water Column (ft.): Well Diameter (in.): Gal. per ft.: Well Volume (gal.): Depth of Screen (ft.):		Purge Methodology: <i>See Page 1</i>		Diameter	Gal. Per Foot	Diameter	Gal. Per Foot				
		2"	.163	5"	1.020						
		3"	.367	6"	1.469						
		4"	.653	8"	2.611						
Water Quality Meter:											
Field Parameters											
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Initial	Stabilization < 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
	1345	4.23	150	2.7	7.46	27.41	1.28	-13.3	3.18	0.04	12
Post-Purge											
Remarks: Pump Intake Depth:				Control Box Setting (Hz): Development:				Sampling: (Sample at 100-250 ml/min)			
<i>See Page 1</i>											
SAMPLING											
Depth to Water Before Sampling:											
Sample Methodology:											
Sample Name: OC Sample:											
Sample Date/Time:											
Sampler / Signature:											
Filtered Metals Collected: Y / N Filter Size:											
Sample Observations:											
Parameters:											

Low-Flow Groundwater Sampling: Field Data Sheet

Pg 1 of 2

Well Number: MW-8T <i>depth intermediate</i>		Site: Gowanus Canal Remedial Investigation										
Field Crew: EB		Date: 7/20/10 Project #: 395863										
Well Depth (ft.):	38.6	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot						
DTW (ft.):	4.5	<i>Low Flow</i>	2"	.163	5"	1.020						
Water Column (ft.):	34.1	<i>w/ 2" Gravel Floc</i>	3"	.367	6"	1.469						
Well Diameter (in.):	2	<i>4"</i>	4"	.653	8"	2.611						
Gal. per ft.:	.163	Water Quality Meter:										
Well Volume (gal.):	5.6	<i>in - 52</i>										
Depth of Screen (ft.):	33.6	<i>10 min H2O 20.2°</i>										
Field Parameters												
Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor	
Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%		
Initial	12:50	4.57	150	5.5	8.82	30.68	2.61	-30	1.33	0.09	42.8	
	12:55	4.93	160	5.5	7.61	30.37	2.52	-48	0.00	0.09	75.8 57.5	
	13:00	4.93	200	1	7.50	29.11	2.54	-54	0.00	0.09	30	
	13:05	4.93	200	1	7.59	28.32	2.59	-57	0.00	0.09	17.2	
	13:10	4.93	210	1	7.68	28.70	2.72	-58	0.00	0.09	16.5	
	13:15	4.94	190	1.5	7.74	27.35	3.25	-59	0.00	0.12	15.4	
	13:20	4.93	190	1.75	7.82	27.02	3.47	-60	0.00	0.13	13.9	
	13:25	4.89	175	2.0	7.84	26.69	3.51	-59	0.00	0.13	10.9	
	13:30	4.93	160	2.5	7.86	26.44	3.49	-60	0.00	0.13	9.64	
	13:35	4.92	170	2.75	7.87	26.24	3.50	-57	0.00	0.13	20.02	
	13:40		170	3	7.90	26.01	3.47	-60	0.00	0.13	16.9	
Post-Purge	14:45	5.02	150	-5	8.17	26.78	3.03	-44	0.00	0.11	0.00	
Remarks: Pump Intake Depth:		Control Box Setting (Hz): Development:					Sampling: (Sample at 100-250 ml/min)					
37.2		57.6					55.10 170 ml/min					
SAMPLING												
Depth to Water Before Sampling: 5.01												
Sample Methodology: Tube - low flow w/ 2" Gravel Floc pump + Teflon lined tubing												
Sample Name: GC-MW-8I QC Sample: none												
Sample Date/Time: 7/20/10 1600												
Sampler / Signature: E. Brault												
Filtered Metals Collected: D. N Filter Size: 0.45												
Sample Observations:												
Parameters: VOC, SVOC, Metals, Filtered Metals, PCB, Part, CN, Hg												

DR

Low-Flow Groundwater Sampling: Field Data Sheet

Pg 2 of 2

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 11-5'		Site: Gowanus Canal Remedial Investigation									
Field Crew: SQ, EB, CM		Date: 7/14/10 Project #: 395863									
Well Depth (ft.): 14.54		Purge Methodology: Low Flow	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot					
DTW (ft.): 7.32'			2"	.163	5"	1.020					
Water Column (ft.): 7.22'			3"	.367	6"	1.469					
Well Diameter (in.): 2 in			4"	.653	8"	2.611					
Gal. per ft.: 0.163		Water Quality Meter:									
Well Volume (gal.): 1,18		u-52									
Depth of Screen (ft.): 4.54		Length: 12.0200									
Field Parameters											
Time	DTW (ft)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Sat %	Color/Odor
Stabilization	<0.3'	Purge at 200-500		+/- 0.1		+/- 3%	+/- 10 mV	+/- 10%	+/- 10%		
Initial	1305	7.91	200	0	7.01	23.64	1.34	-100	0.08	43.2	0.04 slight petro-like
1 VOL.	1320	9.61	200	0.3	7.22	19.82	1.32	-122	0.00	32.2	0.04
2 VOL.	1325	9.61	100	0.45	7.22	22.04	1.24	-120	0.00	28.4	0.04
3 VOL.	1330	9.98	100	0.6	7.22	21.67	1.25	-118	0.00	32.8	0.04
4 VOL.	1335	10.10	100	0.75	7.22	22.33	1.23	-116	0.00	29.0	0.04
5 VOL.	1340	10.37	150	0.9	7.22	22.15	1.22	-116	0.00	27.9	0.03
6 VOL.	1345	10.64	100	0.75	7.23	22.91	1.21	-117	0.00	26.2	0.03
7 VOL.	1350	10.83	150	1.4	7.23	22.32	1.24	-120	0.00	22.2	0.04
8 VOL.	1255	10.93	150	1.6	7.23	23.03	1.23	-121	0.00	21.2	0.04
9 VOL.	1400	11.11	150	1.8	7.23	22.64	1.27	-122	0.00	21.8	0.04
10 VOL.	1405	11.16	100	1.95	7.23	22.65	1.27	-122	0.00	21.8	0.04
Post-Purge	1605	12.13	75	2.05	7.19	25.39	1.51	-104	0.00	9.34	0.05
Remarks:	Pump Intake Depth:		13.54	Control Box Setting (Hz):	Development: 70.70 Hz (EB)		Sampling: (Sample at 100-250 ml/min) 76.5 Hz				
SAMPLING											
Depth to Water Before Sampling: 11.20											
Sample Methodology: 100 mL flow											
Sample Name: 66-MW 11-5 QC Sample: n/a											
Sample Date/Time: 7/14/2010 @ 14:00 1400											
Sampler / Signature: SQ											
Filtered Metals Collected: (Y) N Filter Size: 0.45											
Sample Observations: n/a											
Parameters: VOC, SVOC, PEST, PCB, metals, filterable metals											

DR

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	II I	Site: Gowanus Canal Remedial Investigation			
Field Crew:	E.B., S.Q., C.M.	Date: 7/14/10 Project #: 395863			
Well Depth (ft.):	44.89'	Purge Methodology:	Diameter	Gal. Per Foot	Diameter
DTW (ft.):	7.03'	Low Flow	2"	.163	5"
Water Column (ft.):	37.86		3"	.367	6"
Well Diameter (in.):	2in		4"	.653	8"
Gal. per ft.:	0.163	Water Quality Meter:			
Well Volume (gal.):	617 gal	62.52			
Depth of Screen (ft.):	39.89	(cm. 46 202")			

Field Parameters											
Time	DTW (ft)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Salt %	Color/Odor
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3%	+/- 10 mV	+/- 10%	+/- 10%		
Initial	130.5	7.14	275	0	7.45	23.63	1.44	-167	0.55	170	0.07
1 VOL.	131.0	7.14	275	0.4	7.41	22.49	1.50	-167	0.48	130	0.08
2 VOL.	131.5	7.14	275	0.8	7.33	21.00	1.54	-163	0.44	75	0.08
3 VOL.	132.0	7.14	275	1.2	7.24	20.92	1.52	-159	0.36	45	0.08
4 VOL.	132.5	7.14	275	1.6	7.20	21.61	1.49	-157	0.36	40	0.07
5 VOL.	133.0	7.14	275	2.0	7.19	24.67	1.38	-157	0.24	13	0.07
6 VOL.	133.5	7.19	275	2.4	7.18	24.87	1.37	-156	0.24	21	0.07
7 VOL.	134.0	7.19	275	2.9	7.17	25.06	1.36	-156	0.24	14	0.07
8 VOL.											
9 VOL.											
10 VOL.											
Post-Purge	142.5	7.19	325	29	7.10	17.26	1.60	-132	0.36	19	0.08

Remarks: Pump Intake Depth: 42.39 Control Box Setting (Hz): Development: 70,70 Hz Sampling: (Sample at 100-250 ml/min)

PID Headspace Reading = 18.8 ppm.

SAMPLING											
Depth to Water Before Sampling:	7.19										
Sample Methodology:	Tube w/ 2" Grundfos pump + teflon lined tubing										
Sample Name:	GC-mw-112										
QC Sample:	w/4										
Sample Date/Time:	7/14/10	13:45	7.28.4 (DTW)								
Sampler / Signature:	E.Brandt	SD-012									
Filtered Metals Collected:	(<input checked="" type="checkbox"/> N	Filter Size:	0.45								
Sample Observations:	N/A										
Parameters:	VOC, SVOC, PCB, metals, filtered metals										

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	125	Site: Gowanus Canal Remedial Investigation			
Field Crew:	M.B E.B T.F S.Q M.M	Date: 7/13 Project #: 395863			
Well Depth (ft.):	14.16	Purge Methodology:	Diameter	Gal. Per Foot	Diameter
DTW (ft.):	9.33	Low flow sample procedure	2"	.163	5"
Water Column (ft.):	4.83	(Ground) pump + teflon tubing	3"	.367	6"
Well Diameter (in.):	2		4"	.653	8"
Gal. per ft.:	0.163	Water Quality Meter:			
Well Volume (gal.):	0.78	Hanna V-52			
Depth of Screen (ft.):		Lamotte 2020			

Field Parameters										
		Flow Rate	Total Volume	pH	Temp	Cond.	ORP	D.O. [Surface]	Turbidity	
Time	DTW (tic)	(ml/min)	(gal)	(Std. Units)	(C)	(mS/cm)	(mV)	(mg/l)	(NTU)	Color/Odor
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	
Initial	10:15	9.81	325/min	-	Pump to clear	-	-	-	-	PID 46.7 in well
1 VOL.	10:20	10.01	100/min	.25	6.58	20.55	1.13	-85	.96	140 Petroleum like, grey
2 VOL.	10:25	10.05	100/min	.5	6.62	21.34	1.14	-98	.76	150 tan colvacy, cloudy
3 VOL.	10:30	10.09	100/min	.6	6.64	21.93	1.14	-102	.69	180 tan /Brown
4 VOL.	10:35	10.10	100/min	.8	6.66	22.56	1.14	-110	.63	6.1 slightly cloudy, brown
5 VOL.	10:40	10.10	100/min	1	6.68	22.98	1.13	-113	.60	75 partly cloudy, grey
6 VOL.	10:45	10.03	100/min	1.2	6.70	23.47	1.13	-117	.56	40 clear slight odor
7 VOL.	10:50	10.19	150/min	1.5	6.71	23.33	1.13	-115	.59	37 clear slight odor
8 VOL.	10:55	10.26	150/min	1.7	6.73	23.50	1.13	-123	.54	24 clear slight odor
9 VOL.	11:00	10.23	100/min	1.8	6.73	23.72	1.13	-124	.49	21 clear slight odor
10 VOL.	11:05	10.17	120/min	2.0	6.76	24.02	1.12	-125	.47	26 partly cloudy, grey
Post-Purge	11:10	10.23	500/min	2.8	6.76	22.56	1.11	-127	.45	32 clear. s

Remarks: Pump Intake Depth: 13.1 Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

PID - 46.7 - in well

SAMPLING										
Depth to Water Before Sampling:	10.19									
Sample Methodology:	Low flow w/ 2" Grundfos pump + teflon lined tubing									
Sample Name:	G.C - MW 125	QC Sample:	w/t							
Sample Date/Time:	7/13	12:00								
Sampler / Signature:	Michael Briscoe	mm	mm							
Filtered Metals Collected:	Y / N	Filter Size:	40 mm	mm	765					
Sample Observations:	Clear, petro like		smell	-	high tide					
Parameters:	VOCs, SVOCs, Pesticides, PCBs, total metals, dissolved metals									

(DR)

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	125	Site: Gowanus Canal Remedial Investigation								
Field Crew:	MN EB TF SQ MB	Date:	7/13	Project #: 395863						
Well Depth (ft.):	14.16	Purge Methodology:	Diameter	Gal. Per Foot	Diameter					
DTW (ft.):	9.33	Low flow sample procedure ground pump, teflon tubing	2"	.163	5"	1.020				
Water Column (ft.):	4.83		3"	.367	6"	1.469				
Well Diameter (in.):	2 "		4"	.653	8"	2.611				
Gal. per ft.:	0.163	Water Quality Meter:								
Well Volume (gal.):	0.787	Huriba V-52 Lanotte 2020								
Depth of Screen (ft.):										
Field Parameters										
Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Color/Odor
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	
11:15	10.72	200/min	3.3	6.78	22.87	1.10	-131	.41	150	partly cloudy .5 salinity
11:20	10.76	250/min	3.7	6.81	22.86	1.08	-139	.45	190	partly cloudy .5 salinity
11:25	10.79	250/min	4.1	6.83	22.97	1.07	-142	.35	95	partly cloudy .5 salinity
11:30	10.77	150/min	4.5	6.84	23.09	1.07	-143	.34	65	slightly clear .5 salinity
11:35	10.73	100/min	5.0	6.86	23.27	1.06	-144	.34	5.3	slightly cloudy .5 salinity
11:40	10.63	150/min	5.5	6.87	23.60	1.06	-147	.34	26	clear .5 salinity
11:45	10.63	120/min	6.0	6.87	23.66	1.05	-149	.34	27	clear .5 salinity
11:50	10.44	100/min	6.3	6.87	23.66	1.05	-149	.34	23	clear .5 salinity
11:55	11.19	120/min	7.5	6.87	23.65	1.05	-149	.35	23	clear .5 salinity
12:00	11.19									
12:55 Post-Purge	12.55	120/min	7.5	6.87	22.10	0.962	-129	8.59	290	clear .4 salinity
Remarks:	Pump Intake Depth:	13.1	Control Box Setting (Hz):	Development:	Sampling:	(Sample at 100-250 ml/min)				
SAMPLING										
Depth to Water Before Sampling:	10.19									
Sample Methodology:	low flow									
Sample Name:	GC - MW 125									
QC Sample:	w/t									
Sample Date/Time:	7/13/10 12:00									
Sampler / Signature:	Michael Briscue Matthew [Signature]									
Filtered Metals Collected:	<input checked="" type="checkbox"/>	N	Filter Size:	40mm						
Sample Observations:	Clear, slight petro odor									
Parameters:	VOC, SVOC, metals, dissolved metals, pesticides, PCBs									

10/1

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	GC-121	Site: Gowanus Canal Remedial Investigation			
Field Crew:	EB SQ	Date: 7/13/10 Project #: 395863			
Well Depth (ft.):	44.97	Purge Methodology:	Diameter	Gal. Per Foot	Diameter
DTW (ft.):	9.08	Low Flow Sand	2"	.163	5"
Water Column (ft.):	35.89	Procedure: Grindfos pump + teflon lined tubing	3"	.367	6"
Well Diameter (in.):	2"	Teflon LWS	4"	.653	8"
Gal. per ft.:	35.89 0.163	Water Quality Meter:			
Well Volume (gal.):	5.85	174.159 - U-52			
Depth of Screen (ft.):	—	Lamnate 2020			

Field Parameters										
Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Color/Odor
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	Sol
Initial	1020	9.11	360	7.08	19.36	1.460	-119	0.0	19.4	0.04 / slight petro odor
1 VOL.	1025	9.11	360	0.5	6.94	18.73	-115	0.0	13.7	0.04 clear, slight petro like odor
2 VOL.	1030	9.11	230	0.75	6.88	18.68	-113	0.0	12.5	0.04 clear, slight petro like odor
3 VOL.	1035	9.10	230	6.0	6.86	18.41	-119	0.0	7.52	0.04 clear, slight petro like odor
4 VOL.	1040	9.10	230	1.25	6.84	18.57	-138	0.0	7.39	0.04 clear, slight petro like odor
5 VOL.	1045	9.10	285	1.75	6.84	18.55	-138	0.0	8.00	0.04 clear, slight petro like odor
6 VOL.	1050	9.10	225	2.0	6.87	18.45	-138	0.0	4.03	0.04 clear, slight petro like odor
7 VOL.										
8 VOL.										
9 VOL.										
10 VOL.										
Post-Purge	1150	9.12	200	7.02	18.81	1.35	-92	3.12	8.45	0.04 clear, slight petro like odor

Remarks: Pump Intake Depth: 42.47 Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

74.83

1055

PI 1-257.0

SAMPLING										
Depth to Water Before Sampling:	9.10									
Sample Methodology:	Low Flow w/ 2" Grundfos pump + teflon lined tubing									
Sample Name:	GC-mu-121									
QC Sample:	None									
Sample Date/Time:	7/13/10 1055									
Sampler / Signature:	SQ / EB									
Filtered Metals Collected:	(Y) N Filter Size: 45 microm DDC + metals									
Sample Observations:	Clear, slight petro like odor Hole fish, slight sheen									
Parameters:	VOC, SVOC, post, PCB, metals, filtered metals									

QDQ

DR

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-13S		Site: Gowanus Canal Remedial Investigation										
Field Crew: MW		Date: 7.19.10 Project #: 395863										
Well Depth (ft.): 11.41 DTW (ft.): 4.27 Water Column (ft.): 8.14 Well Diameter (in.): 2 Gal. per ft.: 0.163 Well Volume (gal.): 1.3 Depth of Screen (ft.): 2.41		Purge Methodology: Low Flow	Diameter 2" 3" 4"	Gal. Per Foot .163 .367 .653		Diameter 5" 6" 8"	Gal. Per Foot 1.020 1.469 2.611					
Field Parameters												
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor	
Initial Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%		
1230	4.10	50	1.5	6.83	28.0	3.71	-146	2.23	0.14	42.1	Petroleum odor	
1235	5.58	180	2.5	7.02	25.44	3.79	-161	1.40	0.14	28.4	petroleum odor, C16	
1240	5.90	175	1.5	7.07	27.64	3.81	-150	0.3	0.14	36.8		
1245	5.94	50	1.5	7.07	27.97	3.84	-157	0.0	0.14	40.5		
1250	6.21	100	.54	7.08	28.28	3.94	-158	0.0	0.15	46.8		
1255	6.29	150	1	7.08	29.85	3.98	-161	0.0	0.15	44.0		
1300	6.31	150	1+	7.10	31.03	3.95	-135	0.0	0.15	46.4		
										46.3		
Post-Purge	1514	10.29	100	1+	7.41	32.64	2.72	-129	0.0	0.09	16.3	
Remarks:	Pump Intake Depth: 11.41'				Control Box Setting (Hz):	Development: 61.80 - 62.3			Sampling: (Sample at 100-250 ml/min) 60.70 - 77.60			
SAMPLING												
Depth to Water Before Sampling: 6.31												
Sample Methodology: Tube - low flow w/ 2" Gravitas pump and Teflon lined tubing												
Sample Name: GC-MW13S QC Sample: none												
Sample Date/Time: 7.19.10 1300												
Sampler / Signature: MW												
Filtered Metals Collected: <input checked="" type="checkbox"/> N Filter Size: .245												
Sample Observations:												
Parameters: VOCs, SVOCs, metals, LiS metals,pest/PCBs, CN-												

(DR)

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW - 13 I	Site: Gowanus Canal Remedial Investigation			
Field Crew:	CM/SB	Date:	7/19/2010	Project #: 395863	
Well Depth (ft.):	55.25	Purge Methodology:	Diameter	Gal. Per Foot	Diameter
DTW (ft.):	5.60	Low Flow	2"	.163	5"
Water Column (ft.):	49.65	Plumb	3"	.367	6"
Well Diameter (in.):	2"		4"	.653	8"
Gal. per ft.:	0.163	Water Quality Meter:			
Well Volume (gal.):	8,0	Hach 16A g = 3,800			
Depth of Screen (ft.):	50.75				

Field Parameters											
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1505	4.30	200	0	7.14	30,93	2.12	-148	1.84	0.11	29.3
	1510		200	0.7	6.88	23.98	4.14	-171	0.82	0.22	72.4
	1515		200	1.0	6.86	22.91	4.51	-172	0.69	0.24	68.0
	1520		250	1.2	6.85	22.71	4.56	-171	0.68	0.24	63.5
	1525		250	1.8	6.84	22.24	4.78	-168	0.62	0.26	30.6
	1530	↓	250	2.2	6.85	21.71	4.90	-167	0.54	0.26	22.2
	1535	4.30	250	2.5	6.87	21.31	4.99	-165	0.73	0.27	8.84
	1540	1	250	2.6	6.87	21.29	5.02	-165	0.61	0.22	7.96
	1545		250	2.8	6.88	21.27	5.06	-165	0.55	0.27	5.33
	1550	↓	250	3.0	6.89	21.05	5.08	-164	0.47	0.27	3.04
Post-Purge	1715	4.40	240	4.8	6.92	28.83	4.60	-161	1.49	0.25	5.36

Remarks: Pump Intake Depth: 52.75 Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

52.50

Int. fine Probe malfunction.

Q10 heading:

SAMPLING	
Depth to Water Before Sampling:	4.30
Sample Methodology:	Low Flow
Sample Name:	G/C-MW13I
AC Sample:	None
Sample Date/Time:	7/19/2010 1555
Sampler / Signature:	Ed Brandt LCR
Filtered Metals Collected:	(Y/N) N Filter Size: 0.45 microm
Sample Observations:	VOC SVOC metals Filtered metals Cyanide, VOC, Pesticides, Mercury
Parameters:	

DP

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-14S		Site: Gowanus Canal Remedial Investigation										
Field Crew: MWP/mB		Date: 7.19.10 Project #: 395863										
Well Depth (ft.): 13.47		Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot						
DTW (ft.): 4.20		Low Flow	(2")	.163	5"	1.020						
Water Column (ft.): 9.27			3"	.367	6"	1.469						
Well Diameter (in.): 2"			4"	.653	8"	2.611						
Gal. per ft.: 0.163		Water Quality Meter:										
Well Volume (gal.): 1,56		Hanba										
Depth of Screen (ft.): 3.47												
Field Parameters												
Time	DTW (ft)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor	
Initial Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%		
1020	4.12	300	<.5	6.95	20.62	1.33	-91	.86	0.07	21.4		
1025	4.98	200	.5	6.77	22.89	1.24	-60	.59	0.06	17.1		
1030	5.01	125	7.5	6.75	24.09	1.21	-59	.78	0.06	14.2		
1035	5.09	150	1	6.76	24.71	1.18	-65	.82	0.06	9.3		
1040	5.09	100	14	6.75	24.94	1.18	-62	.72	0.06	6.74		
1045	5.09	100	1+	6.78	21.99	1.20	-67	.66	0.06	5.18		
Post-Purge	110	6.35	100	1+	6.45	27.35	1.23	-79	.72	0.06	12.8	
Remarks: Pump Intake Depth:	12.47				Control Box Setting (Hz):	Development:		Sampling: (Sample at 100-250 ml/min)				
					59.20 - 59.60							57.50 -
<u>P10 Headspace = 0.0 lpm</u>												
SAMPLING												
Depth to Water Before Sampling: 5.04												
Sample Methodology: Tube												
Sample Name: GC-MW-14S QC Sample: N/A												
Sample Date/Time: 7.19.10 1045												
Sampler / Signature: WJP												
Filtered Metals Collected: CP N Filter Size: 045												
Sample Observations: None												
Parameters: VOCs, SVOCs, metals, Dissolved metals, post/PCBs, CN-												

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW-111		Site: Gowanus Canal Remedial Investigation									
Field Crew:	MVPIMS		Date:	7/19/10 Project #: 395863								
Well Depth (ft.):	56.03	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot						
DTW (ft.):	5.85	Low Flow	2"	.163	5"	1.020						
Water Column (ft.):	50.20		3"	.367	6"	1.469						
Well Diameter (in.):	2 in		4"	.653	8"	2.611						
Gal. per ft.:	0.163	Water Quality Meter:										
Well Volume (gal.):	8,183	U-52										
Depth of Screen (ft.):	51.03											
Field Parameters												
Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor	
Stabilization	<0.3	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%		
Initial	1045	5.89	350	-	6.21	21.22	1.23	-74	1.92	0.06	28.3	clear.
	1050	NA	400	0.5	6.38	20.39	2.15	-153	0.86	0.11	45.2	Brown./opague
	1055		400	1.2	6.52	20.12	2.21	-172	0.73	0.11	212	Cloudy.
	1100		400	1.7	6.57	19.77	2.38	-173	0.62	0.12	182	Cloudy.
	1105		400	2.3	6.59	20.02	2.65	-173	0.57	0.14	100.9	Slightly cloudy.
	1110		340	2.7	6.62	19.82	2.77	-169	0.51	0.14	58.2	Slightly cloudy.
	1115		350	3.0	6.64	19.73	2.86	-168	0.61	0.15	42.8	Slightly cloudy.
	1120		350	3.3	6.66	19.59	2.91	-169	0.63	0.15	30.4	
	1125		400	3.8	6.68	19.48	2.94	-169	0.56	0.15	19.0	
	1130		400	5	6.71	19.43	2.93	-169	0.58	0.15	16.9	
	1135	↓	400	5.5	6.72	19.47	2.96	-169	0.48	0.15	14.4	
		SEE NEXT PAGE FOR COMMENTS										
Remarks:	Pump Intake Depth: 53.53			Control Box Setting (Hz): Development:			Sampling: (Sample at 100-250 ml/min)					
NA -	Interface probes not functioning, unable to obtain DTW											
P10 Reading: 0.0 ppm												
SAMPLING												
Depth to Water Before Sampling:	NA											
Sample Methodology:	Low Flow											
Sample Name:	GC-MW111											
QC Sample:												
Sample Date/Time:	7/19/10 * see page 1 for details											
Sampler / Signature:												
Filtered Metals Collected:	(Y) N Filter Size: 0.45											
Sample Observations:												
Parameters:	VOC, SVOC, Metals, Filtered Metals, PCB, Pest, CN, Hg											

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DR

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MWL-141		Site: Gowanus Canal Remedial Investigation										
Field Crew: MVP/MB		Date: 7/19/2010 Project #: 395863										
Well Depth (ft.): 56.03	Purge Methodology: Low Flow	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot							
DTW (ft.): 5.85		2"	.163	5"	1.020							
Water Column (ft.): 50.20		3"	.367	6"	1.469							
Well Diameter (in.): 2"		4"	.653	8"	2.611							
Gal. per ft.: 0.163 gal/ft	Water Quality Meter: Horiba											
Well Volume (gal.): 8,189 gal												
Depth of Screen (ft.): 51.03												
Field Parameters												
Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor	
Stabilization	<0.3'	Purge at 200-500	\	+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%		
1140	NA	400	6	6.75	19.38	2.92	-169	0.41	0.15	14.9		
1145		450	7	6.76	19.19	2.90	-170	0.41	0.15	20.0		
1150		500	7.5	6.78	19.14	2.89	-172	0.43	0.15	34.7		
1155		200	8	6.80	19.23	2.87	-174	0.41	0.15	40.4		
1200		200	8.3	6.81	20.82	2.95	-176	0.39	0.15	21.3		
1205		200	8.7	6.84	20.87	2.95	-177	0.29	0.15	21.8		
1210		200	9	6.85	20.79	3.05	-174	0.39	0.15	12.5		
1215		200	9.5	6.86	20.88	3.04	-169	0.41	0.16	10.94		
1220		200	10	6.86	20.77	3.04	-172	0.38	0.16	10.15		
1225	↓	200	10.2	6.87	20.29	3.05	-172	0.37	0.16	11.1		
1310	5.68	210	6.93	24.39	3.10	-185	3.40	0.16	23.8			
Remarks:	Pump Intake Depth: 53.53		Control Box Setting (Hz): 63.00		Development:		Sampling: (Sample at 100-250 ml/min)					
							57.20 Hz					
	intake probe not functioning - unable to obtain DTW.											
PID Reading: 0.0 ppm												
SAMPLING												
Depth to Water Before Sampling: NA												
Sample Methodology: Low Flow												
Sample Name: GC-MWL-141 QC Sample:												
Sample Date/Time: 7/19/2010 12:30												
Sampler / Signature: Ed. Rendall												
Filtered Metals Collected: N/A Filter Size:												
Sample Observations:												
Parameters: Toc, SVOC, metals, PCB, Filtered Metals, PCT, Hg, Cd.												

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Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW 15.5		Site: Gowanus Canal Remedial Investigation									
Field Crew:	Tom Parker		Date:	7/22/10 Project #: 395863								
Well Depth (ft.):	13.45'		Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot					
DTW (ft.):	6.65'		low flow	2"	.163	5"	1.020					
Water Column (ft.):	6.8		W Ground fds	3"	.367	6"	1.469					
Well Diameter (in.):	7"		+ Stephen tubes	4"	.653	8"	2.611					
Gal. per ft.:	0.163'		Water Quality Meter:									
Well Volume (gal.):	100 ft ³ (45 gal)		1.0 M3									
Depth of Screen (ft.):	7.1		13.45'									
Field Parameters												
Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor	
Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%		
1600	6.65	90	0	7.0	25.6	712.6	-10	0.00	0.72	269	sl. yellowish turbidity	
1605	7.3	17041	6.9	26.9	73.1	-15	0.00	0.75	181	"		
1610	8.1	100	6.9	26.13	13.1	+1	0.00	0.75	199	y		
1615	9.06	260	6.98	27.20	12.8	-7	0.00	0.72	243	"		
1620	~8.8	90	~1	6.89	26.84	12.9	11	0.00	0.74	212	"	
1625	~9.5	270	12	6.9	26.08	13.1	20	0.00	0.75	199	y	
1630	8.81	400	14	6.94	25.90	13.0	11	0.00	0.75	160	"	
1635	9.5	200	~1.6	6.94	26.52	13.3	-7	0.00	0.72	131	"	
1640	9.88	100	~2	6.9	26.28	13.1	-4	0.00	0.75	121	"	
1645	9.89	30	~21	6.98	26.53	13.2	6	0.00	0.76	105	"	
1650	9.88	200	~22	6.98	26.93	13.4	-3	0.00	0.77	72.9	Clean	
1655	9.88	140	~23	6.99	26.59	13.1	-18	0.00	0.75	88.4	Clean	
Remarks:	Pump Intake Depth:		Control Box Setting (Hz):		Development:		Sampling: (Sample at 100-250 ml/min)					
	12.45'		76									
Depth to Water Before Sampling:												
Sample Methodology:	LFGP											
Sample Name:	MW 15.5		QC Sample: none									
Sample Date/Time:	7/22/10 1745											
Sampler / Signature:	TF											
Filtered Metals Collected:	Y / N Filter Size: 45											
Sample Observations:	light yellow - clear											
Parameters:	V, T, P, DO, EC, Resist, TDS, Metals (Pb, Zn, Cu, Ni, Cr, Cd, As, Fe, Mn, Hg, Pb, Zn, Cu, Ni, Cr, Cd, As, Fe, Mn, Hg)											

1720 (0.75) 100 ~3.2 7.0 26.00 13.4 ~44 0.00 0.77 67.2
1725 10.77 ~3.4 7.0 26.43 13.5 ~51 0.00 0.77 63.3
1730 11.00 200 3.8 7.11 26.61 13.4 ~50 0.00 0.77 35.3

1735 11.01 120 ~4 7.12 26.51 13.4 ~48 0.00 0.77 37.9

1740 11.02 100 ~4.2 7.13 26.51 13.4 ~47 0.00 0.77 36.9

Sample 1745 at 1400 L/min PUMP FLOW FOR PIPAL READINGS PTIV 114V

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-153		Site: Gowanus Canal Remedial Investigation									
Field Crew: Michael Murphy		Date: 7/27/10 Project #: 395863									
Well Depth (ft.): 13.53	Purge Methodology: Low-Flow Purge Method	Diameter: 2"	Gal. Per Foot: .163	Diameter: 5"	Gal. Per Foot: 1.020						
DTW (ft.): 6.83	- Grundfos Pump	3"	.367	6"	1.469						
Water Column (ft.): 6.7	Water Quality Meter: Hach U-52	4"	.653	8"	2.611						
Well Diameter (in.): 2"	Length: 2020										
Gal. per ft.: 0.163											
Well Volume (gal.): 1,09											
Depth of Screen (ft.): 7.5 - 13.5											
Field Parameters											
Time	DTW (ft)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	GRP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Salinity (%)	Color/Odor
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%		
Initial	1015	NR	125	—	6.90	22.08	13.4	0	0.87	150	0.77% cloudy
1 VOL.	1020	NR	125	1.91	6.92	23.29	13.4	-5	0.81	150	0.77 cloudy
2 VOL.	1025	NR	125	1.1	6.94	23.84	13.5	2	0.81	100	0.78
3 VOL.	1030	NR	125	1.2	6.94	24.53	13.5	8	0.84	85	0.78
4 VOL.	1035	NR	125	1.3	6.94	24.56	13.7	1	0.79	55	0.79
5 VOL.	1040	NR	125	1.4	7.00	24.95	13.6	4	0.81	45	0.79
6 VOL.	1045	NR	125	1.5	7.04	24.76	13.8	-4	0.76	50	0.79 clear
7 VOL.	1050	NR	125	1.6	7.05	24.80	13.7	-5	0.74	45	0.79 clear
8 VOL.	1055	NR	125	1.7	7.06	25.41	13.7	-2	0.72	39	0.79
9 VOL.	1100	NR	125	1.8	7.06	25.52	13.7	1	0.70	31	0.79
10 VOL.	1105	NR	125	1.9	7.07	25.59	13.7	-2	0.67	23	0.79
11 Post-Purge	1110	NR	125	2.0	7.09	25.80	13.7	-2	0.69	18	0.79
Remarks: Pump Intake Depth:		Control Box Setting (Hz): Development:				Sampling: (Sample at 100-250 ml/min)					
~12.5'						~85 Hz ~ 85 Hz					
Depth to water did not work while pump was operational											
Ferrous Iron - 0.22 mg/L											
SAMPLING											
Depth to Water Before Sampling: NR											
Sample Methodology: low flow sample procedure											
Sample Name: GL-MW153 QC Sample: None											
Sample Date/Time: 7/27/10 1130											
Sampler / Signature: M. Murphy											
Filtered Metal Collected: Y/N Filter Size: 0.45 micron (geo chem parameters)											
Sample Observations: clear - no odor											
Parameters: geo chem parameters only											

GEO CHEM PARAMETERS ONLY !!!

(B)

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW - 155		Site: Gowanus Canal Remedial Investigation									
Field Crew: Michael Murphy		Date: 7/27/10 Project #: 395863									
Well Depth (ft.): 13.53 DTW (ft.): 6.83 Water Column (ft.): 6.7 Well Diameter (in.): 2" Gal. per ft.: 0.163 Well Volume (gal.): 1,09 Depth of Screen (ft.): 3.5 - 13.5		Purge <u>Methodology:</u> Low-Flow Purge Method Grundfos Pump <u>Water Quality Meter:</u> Hach U-52 Lam. He 2020		Diameter	Gal. Per Foot	Diameter	Gal. Per Foot				
		2"	.163	5"	1.020						
		3"	.367	6"	1.469						
		4"	.653	8"	2.611						
Field Parameters											
Time	DTW (ft)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Salinity (%) Color/Odor	
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%		
Initial	1115	NR	125	2.1	7.09	25.94	13.6	-2	0.69	14	0.79 clear
1 VOL.	1120	NR	125	2.2	7.09	26.01	13.6	-4	0.68	14	0.78 "
2 VOL.	1125	NR	125	2.3	7.10	26.12	13.6	-7	0.70	12	0.78 "
3 VOL.	1130	NR	125	—	Collect Sample						
4 VOL.											
5 VOL.											
6 VOL.											
7 VOL.											
8 VOL.											
9 VOL.											
10 VOL.											
Post-Purge	1215	NR	125	—	7.20	26.72	13.3	-22	0.95	8.8	0.77 "
Remarks: Pump Intake Depth:				Control Box Setting (Hz): Development:			Sampling: (Sample at 100-250 ml/min)				
<i>See Page 1</i>											
SAMPLING											
Depth to Water Before Sampling: NR											
Sample Methodology: Low Flow Sample procedure											
Sample Name: MW-155 QC Sample: NONE											
Sample Date/Time: 7/27/10 1130											
Sampler / Signature: R. S.											
Filtered Metals Collected: (N) Filter Size: 0.45 micron (geo chem parameters)											
Sample Observations: clear - no odor											
Parameters: Geo chem parameters only											

GEOCHEM PARAMETERS ONLY!!!

OB

Low-Flow Groundwater Sampling: Field Data Sheet

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW - 15F				Site: Gowanus Canal Remedial Investigation							
Field Crew: Michael Murphy				Date: 7/27/10 Project #: 395863							
Well Depth (ft.): 5.58 DTW (ft.): 60.40 Water Column (ft.): 54.82 Well Diameter (in.): 2" Gal. per ft.: 0.163 Well Volume (gal.): 8.94 Depth of Screen (ft.): 50.4 - 60.4				Purge Methodology: Low Flow Purge Method Groundwater Pump		Diameter	Gal. Per Foot	Diameter	Gal. Per Foot		
				2"	.163	5"	1.020				
				3"	.367	6"	1.469				
				4"	.653	8"	2.611				
Field Parameters											
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Solids (%)	Color/Odor
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3%	+/- 10 mV	+/- 10%	+/- 10%		
Initial	1015	NR	500	—	7.13	18.95	13.7	-127	0.69	5.8	0.80 clear none
1 VOL.	1020	NR	500	2.0	7.12	18.79	16.1	-151	0.46	1.8	0.34 "
2 VOL.	1025	NR	500	2.5	7.15	18.55	16.7	-163	0.43	5.4	0.98 "
3 VOL.	1030	NR	500	3.0	7.16	18.34	16.7	-167	0.41	2.7	0.90 "
4 VOL.	1035	NR	500	3.5	7.19	18.17	16.5	-172	0.44	2.5	0.96 "
5 VOL.	1040	NR	500	4.0	7.22	18.74	16.5	-175	0.47	4.4	0.97 "
6 VOL.	1045	NR	500	4.5	7.22	18.62	16.6	-177	0.42	0.70	0.87 "
7 VOL.	1050	NR	250	—							
8 VOL.											
9 VOL.											
10 VOL.											
Post-Purge	1115	NR	21.99	—	7.22	21.99	16.5	-159	0.38	0.65	0.87
Remarks: Pump Intake Depth:				Control Box Setting (Hz): Development:				Sampling: (Sample at 100-250 ml/min)			
~ 55 Ferosus Iron - 0.09 mg/L $\sim 110 \text{ H}_2$ 105 H_2 Depth to water meter did not work while pump was operating											
SAMPLING											
Depth to Water Before Sampling: NR —											
Sample Methodology: Low Flow Sampling Procedure											
Sample Name: GC-MW15F QC Sample: NONE											
Sample Date/Time: 7/27/10 1050											
Sampler / Signature: M. Murphy											
Filtered Metals Collected: (None) Filter Size: 0.45 micron (geochem parameters)											
Sample Observations: clear - no odor											
Parameters: Geo chem Parameters only											

GEOCHEM PARAMETERS ONLY!!!



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Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	165	Site: Gowanus Canal Remedial Investigation			
Field Crew:	MB TF	Date: 7/22/10 Project #: 395863			
Well Depth (ft.):	13.32	Purge Methodology:	Diameter	Gal. Per Foot	Diameter
DTW (ft.):	4.18	Low flow	2"	.163	5" 1.020
Water Column (ft.):	9.14		3"	.367	6" 1.469
Well Diameter (in.):	2"		4"	.653	8" 2.611
Gal. per ft.:	.163	Water Quality Meter:			
Well Volume (gal.):	1.48	Nurolu U-52			
Depth of Screen (ft.):	3.32				

Field Parameters											
Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Initial Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
10:20	4.04	175 ml/min	0.2	7.10	20.85	1.52	-139	.46	.05	500	Black, petro like oil
	4.86	175 ml/min	4	7.22	22.98	1.51	-159	0.0	.05	170	greyish
	5.01	200 ml/min	6	7.28	23.40	1.54	-160	0.0	.05	80	Cloudy, grey
	5.05	175 ml/min	8	7.27	23.89	1.54	-160	0.0	.05	70	Cloudy, greyish
	5.15	175 ml/min	1.0	7.26	24.16	1.58	-158	0.0	.05	55	Cloudy, grey
	5.22	225 ml/min	1.2	7.26	23.73	1.65	-155	0.0	.05	45	Cloudy, grey
	5.31	225 ml/min	1.4	7.25	23.65	1.68	-153	0.0	.05	35	Cloudy, grey
	5.34	250 ml/min	1.9	7.25	23.93	1.70	-153	0.0	.05	29	Slightly cloudy
	5.40	150 ml/min	2.2	7.24	24.15	1.73	-152	0.0	.05	26	Slightly cloudy
	5.53	190 ml/min	2.5	7.21	23.56	1.83	-148	0.0	.05	20	Slightly cloudy
	5.62	190 ml/min	2.8	7.20	23.69	1.86	-148	0.0	.06	16	clear
	5.66	175 ml/min	3.0	7.19	23.64	1.92	-147	0.0	.06	13	Clear

Remarks: Pump Intake Depth: 12.32 Control Box Setting (Hz): 67.0 Sampling: (Sample at 100-250 ml/min)

Post Purge: 175 ml/min

Sample time: 11:45

PID: 2.5

SAMPLING											
Depth to Water Before Sampling:	6.0										
Sample Methodology:	tubing low flow										
Sample Name:	GC-MW-165 QC Sample: X										
Sample Date/Time:	7/27/10 11:45										
Sampler / Signature:	Michael Briscue										
Filtered Metals Collected:	(Y) N Filter Size: .45										
Sample Observations:	cloudy greyish → clear										
Parameters:	VOC, SVOC, metals, filtered metals, Mercury, Cyanide, pesticides										

PCBs

(B)

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Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	165		Site: Gowanus Canal Remedial Investigation								
Field Crew:	MB TF		Date:	7/27 Project #: 395863							
Well Depth (ft.):	13.32	Purge Methodology:	Diameter	Gal. Per Foot		Diameter	Gal. Per Foot				
DTW (ft.):	4.18		2"	.163		5"	1.020				
Water Column (ft.):	9.14	Low flow	3"	.367		6"	1.469				
Well Diameter (in.):	2		4"	.653		8"	2.611				
Gal. per ft.:	.163	Water Quality Meter:									
Well Volume (gal.):	134.8	HOR. 64 - U-52									
Depth of Screen (ft.):	13.32										
Field Parameters											
Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	< 0.3'	Purge at 200-500	+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	+/- 10%	
11:20	5.78	125/min	3.2	7.17	23.78	1.97	-146	0.0	.06	8.5	clear
11:25	5.95	250/min	3.5	7.16	23.13	2.09	-144	0.0	.06	8.4	clear
11:30	5.95	225/min	3.7	7.14	23.61	2.12	-144	0.0	.07	9.0	clear
11:35	6.0	175/min	4.0	7.15	23.60	2.13	-144	0.0	.07	6.8	clear
12:35	6.56	150/min	5.0	7.02	23.80	2.80	-120	0.0	.10	29	clear
Remarks: Pump Intake Depth:			Control Box Setting (Hz):			Development:			Sampling: (Sample at 100-250 ml/min)		
-12.32									175/min		
See page											
SAMPLING											
Depth to Water Before Sampling:											
Sample Methodology:											
Sample Name: See page											
Sample Date/Time:											
Sampler / Signature:											
Filtered Metals Collected: <input checked="" type="checkbox"/> Y N Filter Size: .45											
Sample Observations:											
Parameters:											

Low-Flow Groundwater Sampling: Field Data Sheet

Page 1 of 2

Well Number: MW-1E5		Site: Gowanus Canal Remedial Investigation									
Field Crew: DB		Date: 7/27/10 Project #: 395863									
Well Depth (ft.): 13.31 DTW (ft.): 4.21 Water Column (ft.): 9.11 Well Diameter (in.): 2 Gal. per ft.: .163 Well Volume (gal.): 1,48 Depth of Screen (ft.):	Purge Methodology: LFSP - Grundfos		Diameter	Gal. Per Foot	Diameter	Gal. Per Foot					
	2"	.163	5"	1.020							
	3"	.367	6"	1.469							
	4"	.653	8"	2.611							
Field Parameters											
Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Color/Odor	
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%		
0.16 Initial	955	4.53	200	-	6.44	22.09	2.02	-127	5.18	55.6 cloudy brown/none	
.10 1 VOL	1000	4.88	225	.3	6.53	22.80	1.93	-142	1.50	52.3 clear/none	
.10 2 VOL	1005	5.00	225	.6	6.60	24.15	1.88	-146	.66	51.8 clear/none	
.10 3 VOL	1010	5.03	225	.9	6.62	25.04	1.92	-146	.19	48.0 clear/none	
.10 4 VOL	1015	5.14	225	1.25	6.62	25.48	2.00	-144	0.0	39.7 clear/none	
.11 5 VOL	1020	5.31	175	1.5	6.63	25.60	2.07	-144	0.0	24.5 clear/none	
.11 6 VOL	1025	5.35	175	1.7	6.63	25.54	2.12	-146	0.0	10.2 clear/none	
.11 7 VOL	1030	5.37	175	1.9	6.63	25.81	2.18	-145	0.0	9.8 clear/none	
.12 8 VOL	1035	5.39	175	2.1	6.63	26.01	2.26	-144	0.0	9.0 clear/none	
.12 9 VOL	1040	5.40	175	2.3	6.63	26.26	2.35	-148	0.0	9.2 clear/none	
.13 10 VOL	1045	5.39	175	2.5	6.62	26.63	2.43	-147	0.0	8.9 clear/none	
.13 Post-Purge	1050	5.39	150	2.6	6.62	26.60	2.47	-147	0.0	8.84 clear/none	
Remarks: Pump intake Depth:		Control Box Setting (Hz): Development:				Sampling: (Sample at 100-250 ml/min)					
12.3						58.7	58.7				
Ferrous Iron - 3.30 mg/L											
SAMPLING											
Depth to Water Before Sampling: 5.43											
Sample Methodology: LFSP w/ Grundfos											
Sample Name: GC-MW1E5		QC Sample: N/A									
Sample Date/Time: 7/27/10 11:00											
Sampler / Signature: James S. B. 7/27/10											
Filtered Metals Collected: Y N Filter Size:											
Sample Observations: Clear											
Parameters: geo chem											

(Signature)

Low-Flow Groundwater Sampling: Field Data Sheet

Page 2 of 2

Well Number: MW 165		Site: Gowanus Canal Remedial Investigation								
Field Crew: DB		Date: 2/27/10 Project #: 395863								
Well Depth (ft.): DTW (ft.): Water Column (ft.): Well Diameter (in.): Gal. per ft.: Well Volume (gal.): Depth of Screen (ft.):	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot					
	See Page 1	2"	.163	5"	1.020					
		3"	.367	6"	1.469					
		4"	.653	8"	2.611					
		Water Quality Meter:								
Field Parameters										
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Turbidity (NTU)	Color/Odor
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	
13 Initial	1055	3737	175	7.9	27.00	249	-142	0.0	6.80	clear/none
13 VOL.	1100	Collect sample								
2 VOL.										
3 VOL.										
4 VOL.										
5 VOL.										
6 VOL.										
7 VOL.										
8 VOL.										
9 VOL.										
10 VOL.										
11 Post-Purge	1137	5.82	108	3-	6.78	23.5	2.57	-151	0.0	5.70
Remarks:	Pump Intake Depth:			Control Box Setting (Hz):			Development:	Sampling: (Sample at 100-250 ml/min)		
See Page 1										
SAMPLING										
Depth to Water Before Sampling:										
Sample Methodology:										
Sample Name:	QC Sample:									
Sample Date/Time:	See Page 1									
Sampler / Signature:										
Filtered Metals Collected: Y / N	Filter Size:									
Sample Observations:										
Parameters:										



MW16I

Low-Flow Groundwater Sampling: Field Data Sheet

18 ppm
PID

Well Number:	MW16I	Site: Gowanus Canal Remedial Investigation					
Field Crew:		Date:	7/22/10	Project #: 395863			
Well Depth (ft.):	54.0	Purge Methodology:		Diameter:	Gal. Per Foot	Diameter:	Gal. Per Foot
DTW (ft.):	56.5		low flow	2"	.163	5"	1.020
Water Column (ft.):	53.35		plumb + teflon tubing	3"	.367	6"	1.469
Well Diameter (in.):	0.163			4"	.653	8"	2.611
Gal. per ft.:		Water Quality Meter:					
Well Volume (gal.):	8.7		Hannay				
Depth of Screen (ft.):	54.0 - 59.0'		USGS				

Method 2020

Field Parameters

Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
1015	59.8	240	<1	6.42	22.74	14.1	+218.65	0.09	2.9	0.0m	
1020	6.0	240	<1	7.40	20.28	5.97	-176	0.00	0.38	35.8	3
1025	6.05	240	<1	7.49	20.22	4.25	-188	0.00	0.40	35.6	"
1030	6.09	250	<1	7.54	20.43	7.38	-192	0.00	0.41	20.5	3
1035	6.10	240	<1	7.55	20.62	7.40	-193	0.00	0.41	10.87	
1040	6.10	250	<1.5	7.37	20.71	7.43	-194	0.00	0.41	7.92	
1045	6.19	200	<2	7.59	20.77	7.42	-194	0.00	0.41	0.00	
1050	6.05	220	<2.5	7.60	20.85	7.41	-194	0.00	0.41	7.88	
1055	Troll Sample w/ MS/MSD + field blanks										
1055	6.3										
Post-Purge	7.73	200	3.5	6.77	29.94	6.76	-15	0.83	0.3	7.98	

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

56.5

65

SAMPLING

Depth to Water Before Sampling:	6.20'
Sample Methodology:	low flow
Sample Name:	MW16I 1055 QC Sample: MS/MSD and field replicates
Sample Date/Time:	7/22/10 1055
Sampler / Signature:	Tom Fowler / Tom Fowler
Filtered Metals Collected:	Y N Filter Size:
Sample Observations:	
Parameters:	VOCs, SVOCs, fast, PCB, Metals, CN CANF/G2)

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW - 16T		Site: Gowanus Canal Remedial Investigation										
Field Crew: JTB		Date: 7/27/10 Project #: 305863										
Well Depth (ft.): 58.94		Purge Methodology: LFSP w/ Groundgas	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot						
DTW (ft.): 4.73		2"	.163	5"	1.020							
Water Column (ft.): 53.21		3"	.367	6"	1.469							
Well Diameter (in.): 2"		4"	.653	8"	2.611							
Gal. per ft.: .163		Water Quality Meter:										
Well Volume (gal.): 8,671		LaMotte 2020 F										
Depth of Screen (ft.):												
Field Parameters												
Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Color/Odor		
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%			
Initial	1002	8.35	500	-	6.71	21.62	3.96	-8	4.96	29.0	clear/none	
1 VOL.	1007	8.35	200	.7	7.54	21.45	6.84	-177	2.00	20.9	clear/none	
2 VOL.	1012	8.35	300	1.2	7.73	20.14	7.19	-192	1.65	15.9	clear/none	
3 VOL.	1017	8.37	300	1.5	7.77	20.26	7.16	-196	1.43	9.7	clear/none	
4 VOL.	1022	8.36	200	1.9	7.80	20.43	7.10	-198	1.27	8.97	clear/none	
5 VOL.	1027	8.35	300	2.25	7.81	20.53	7.08	-199	1.18	8.00	clear/none	
6 VOL.	1032	8.36	300	2.60	7.83	20.65	7.04	-201	1.09	7.65	clear/none	
7 VOL.	1037	8.35	300	3.0	7.85	20.85	7.84	-202	1.02	4.77	clear/none	
8 VOL.	1042	8.35	300	3.4	7.85	21.00	7.85	-202	.99	4.74	clear/none	
9 VOL.	1045	Collect Sample										
10 VOL.												
Post-Purge	1117	8.35	175	-	7.86	20.72	7.87	-191	.85	3.83	clear/none	
Remarks: Pump Intake Depth:					Control Box Setting (Hz):	Development:	Sampling: (Sample at 100-250 ml/min)					
56.4					59.5					56.2		
Ferrous Iron - 0.04 mg/L												
150 mL/mile												
SAMPLING												
Depth to Water Before Sampling: 8.35												
Sample Methodology: LFSP w/ groundgas												
Sample Name: GC-MW16T QC Sample: N/A												
Sample Date/Time: 7/27/10 1045												
Sampler / Signature: James BG TGS												
Filtered Metals Collected: Y/N Filter Size:												
Sample Observations: clear												
Parameters: geo chem												

page 1 of 2

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	705		Site: Gowanus Canal Remedial Investigation								
Field Crew:	ML, CZ		Date: 7.28.10		Project #: 395863						
Well Depth (ft.):	12.91	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot					
DTW (ft.):	4.49	flow flow w/ ground to s + topilon tubing	2"	.163	5"	1.020					
Water Column (ft.):	8.42		3"	.367	6"	1.469					
Well Diameter (in.):	2		4"	.653	8"	2.611					
Gal. per ft.:	0.163	Water Quality Meter:									
Well Volume (gal.):	105.84										
Depth of Screen (ft.):	10										
Field Parameters											
Time	DTW (ft)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	0950	NW	250	4.5	5.44	22.82	0.083	154	7.98	0.100	110 no detect, some brown sediment
	1000		65	5.57	20.8	30.5	59	0.63	1.80		
	1005		160	1	5.57	21.15	29.9	54	.59	1.85	80 clear, no odor
	1010		200	14	5.58	21.59	29.2	42	0.53	1.80	110
	1015		200	1.5	5.61	21.68	28.4	72	.56	1.75	85
	1020		200	<2	5.66	22.9	27.7	76	.66	1.70	45
	1025		240	2	5.74	22.72	25.9	-16	.49	1.57	24
	1030		200	24	5.78	22.30	24.3	-36	.44	1.47	19
	1035		240	25	5.78	23.12	23.7	-49	.63	1.43	17
	1040		240	2.5	5.78	23.22	23.6	-51	.91	1.12	17
Post-Purge	1045		250	3.25	5.80	23.15	23.1	-60	0.37	1.39	19.1 begin sample collection
Remarks:	Pump Intake Depth:	11.91	Control Box Setting (Hz):	Development: 61.7 - Hz			Sampling: (Sample at 100-250 ml/min) 250 ml/min				
SAMPLING											
Depth to Water Before Sampling:	9.95										
Sample Methodology:	low flow										
Sample Name:	705		QC Sample: Down Collect								
Sample Date/Time:	7-22-10 1410										
Sampler / Signature:	ML/CZ										
Filtered Metals Collected:	4 PPN		Filter Size: 0.45								
Sample Observations:											
Parameters:	bacteria, metals, Dissolved O ₂ , metals, best PCBs, CA, cretach										

Fair began approx 11:50, well is 3-5 ft from roof dig down part. clogged and infiltrated well casing at about 1210. Sampling ceased. Unable to collect full set of sample bottles.

103

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	J05		Site: Gowanus Canal Remedial Investigation								
Field Crew:	MJP, CR		Date: 7-23-10 Project #: 395863								
Well Depth (ft.):	19.91	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot					
DTW (ft.):	4.49	Low Flow	2"	.163	5"	1.020					
Water Column (ft.):	8.42		3"	.367	6"	1.469					
Well Diameter (in.):	3"		4"	.653	8"	2.611					
Gal. per ft.:	0.163	Water Quality Meter:									
Well Volume (gal.):	Hx5.6a										
Depth of Screen (ft.):	+0										
Field Parameters											
Time	DTW (ft)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
1328	5.60										
1335	8.69										
1340	8.65										
1345	9.3										
1350	9.5										
1355	9.7	300	6.48	23.60	23.1	-30	0.80	1.40	146		
1400	9.7	300	8	23.50	18.2	-23	1.96	1.07	48.7		
1405	9.9	300	8.25	6.47	23.63	17.6	-15	2.03	1.84	23.5	
1410	9.95	300	8.5	6.45	23.42	18.5	-16	1.69	1.10	31.1	
1416		350									began sampling
1430	8.75	300	6.46	24.62	18.8	-20	3.07	1.11	41.2	post-purge	
Remarks:	Pump Intake Depth:		Control Box Setting (Hz):		Development:		Sampling: (Sample at 100-250 ml/min)				
	11.91		78.8 Hz				250 ml/min				
SAMPLING											
Depth to Water Before Sampling:	9.95										
Sample Methodology:	Low Flow										
Sample Name:	J05		QC Sample:		D3						
Sample Date/Time:	7-20-10 1410										
Sampler / Signature:											
Filtered Metals Collected:	(Y) N Filter Size:										
Sample Observations:											
Parameters:	VOC, SVOC, metals, D-linoleic acid, PCB, cyanide, nitrate, fast tech										
1315 - began pumping water - rain and flooding of well ended											

BB

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 20 T		Site: Gowanus Canal Remedial Investigation									
Field Crew: MVP, CZ		Date: 7/22/10 Project #: 395863									
Well Depth (ft.): 39.45		Purge Methodology:	Diameter	Gal. Per Foot		Diameter	Gal. Per Foot				
DTW (ft.): 3.67		LFSQ	2"	.163		5"	1.020				
Water Column (ft.): 35.78		W/Ground to S + seepage to DSS	3"	.367		6"	1.469				
Well Diameter (in.): 2			4"	.653		8"	2.611				
Gal. per ft.: 0.163		Water Quality Meter:									
Well Volume (gal.):											
Depth of Screen (ft.): 5											
Field Parameters											
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Initial	Stabilization	<0.3'	Purge at 200-500	+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
1003	N/A	160	<.5	6.51	23.38	6.38	-61	1.58	35	34	
1005		100	<.5	6.73	25.14	6.30	-128	0.87	0.34		
1010		100	6.05	6.75	24.79	6.64	-134	0.77	36	36	
1015		70	<.3	6.62	22.78	6.54	-135	0.53	36	30	
1020		60	0.5	6.78	25.99	6.64	-137	0.55	36	33	
1025		60	0.5	6.80	26.40	6.64	-137	0.34	36	36	
1030		50	.5+	6.80	26.53	6.62	-136	0.32	36	31	
1035		50	.5+	6.80	26.61	6.62	-134	0.31	36	30.2	
Post-Purge											
Remarks: Pump Intake Depth:				Control Box Setting (Hz): Development:				Sampling: (Sample at 100-250 ml/min)			
36.65 top of pump				61.0 - 63.5							
36.95 pump intake				Flow rate continued to slow down							
PID = 0.0 ppm											
SAMPLING											
Depth to Water Before Sampling: N/A											
Sample Methodology: Tube											
Sample Name: GCL-MW17.5I QC Sample: none											
Sample Date/Time: 7.22.10 1035											
Sampler / Signature: J.W.H.											
Filtered Metals Collected: V/T N Filter Size: D.45"											
Sample Observations: Some off-gassing noted when S.M. was USA. Some											
Parameters: V/T, S.M., Metals, Dissolved Metals, Lead PCB, Cd, Chromium											

No Wet Working

Rain began approx 11:50. Well is 3-5ft from downspout. Water cascaded into well casing at about 12:10. Sampling ceased. Unable to collect full set of sample bottles.

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	201		Site: Gowanus Canal Remedial Investigation								
Field Crew:	MVP/CZ		Date: 7/22/10 Project #: 395863								
Well Depth (ft.):	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot						
DTW (ft.):		2"	.163	5"	1.020						
Water Column (ft.):		3"	.367	6"	1.469						
Well Diameter (in.):	<i>Vertical Well</i>	4"	.653	8"	2.611						
Gal. per ft.:	<i>Vertical Well</i>	Water Quality Meter:									
Well Volume (gal.):											
Depth of Screen (ft.):											
Field Parameters											
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1325	30	1.5	6.24	20.66	6.67	-1101	0.75	36	52.6	
	1330	30	1.5	6.22	22.34	6.73	-121	0.66	37	41.5	
	1335	30	1.5	6.24	23.76	6.68	-113	0.67	37	92.7	
	1340	30	1.5	6.18	24.37	6.71	-118	0.62	37	94.1	
	1345	30	1.5	6.31	23.0	6.84	-131	0.63	37	37.1	Sample
Post-Purge											
Remarks:	Pump Intake Depth:			Control Box Setting (Hz):			Development:		Sampling: (Sample at 100-250 ml/min)		
<p><i>Post rain event</i></p> <p><i>~ 1.5 gal purge from well</i></p> <p><i>prior to low-flow sampling.</i></p>											
SAMPLING											
Depth to Water Before Sampling:											
Sample Methodology:											
Sample Name: <i>Se 2</i> <i>Op Sample</i> <i>2</i>											
Sample Date/Time:											
Sampler / Signature:											
Filtered Metals Collected: Y / N Filter Size:											
Sample Observations:											
Parameters:											

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW-21-S	Site: Gowanus Canal Remedial Investigation				
Field Crew:	FB - CM	Date:	7/23/10	Project #: 395863		
Well Depth (ft.):	13.00	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
DTW (ft.):	3.26	LOW flow	2"	.163	5"	1.020
Water Column (ft.):	9.74	W/ Grav. Sys + D.O. monitor Water Quality Meter	3"	.367	6"	1.469
Well Diameter (in.):	2.1		4"	.653	8"	2.611
Gal. per ft.:	0.143					
Well Volume (gal.):	1.6					
Depth of Screen (ft.):	3.00	4.52				

$$P_{T,D} = 5.2 \text{ pfm}$$

SAMPLING

Depth to Water Before Sampling: 3.65

Sample Methodology: Turbs

Sample Name: SC = NH₂CH₂CH₃

Sample Name: 92711-12 QC Sample: 7m
Sample Date/Time: 2/23/13 10:15 AM

Sample Date/Time:

Sampler / Signature: C. L. BROWN

Filtered Metals Collected: N Filter Size: 0.45

Sample Observations: Sudden on Sample was

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: <u>2A T</u>	Site: Gowanus Canal Remedial Investigation										
Field Crew: <u>C. Miller / C. Brandt</u>	Date: <u>7/23/2016</u> Project #: 395863										
Well Depth (ft.): <u>34.4'</u> DTW (ft.): <u>3.80'</u> Water Column (ft.): <u>33.6'</u> Well Diameter (in.): <u>2"</u> Gal. per ft.: <u>0.163 gal/ft</u> Well Volume (gal.): <u>5.5 gal</u> Depth of Screen (ft.): <u>32.11'</u>	Purge Methodology: <u>Low Flow</u>	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot						
		<u>2"</u>	<u>.163</u>	<u>5"</u>	<u>1.020</u>						
		<u>3"</u>	<u>.367</u>	<u>6"</u>	<u>1.469</u>						
		<u>4"</u>	<u>.653</u>	<u>8"</u>	<u>2.611</u>						
Field Parameters											
Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
0920	<u>3.80</u>	<u>700</u>	<u>0</u>	<u>6.21</u>	<u>24.90</u>	<u>2.13</u>	<u>-12</u>	<u>0.27</u>	<u>0.11</u>	<u>19.8</u>	clear, slight peat-like odor
0925	<u>3.88</u>	<u>100</u>	<u>Y4</u>	<u>6.90</u>	<u>21.73</u>	<u>2.34</u>	<u>-15</u>	<u>0.17</u>	<u>0.12</u>	<u>9.10</u>	"
0930	<u>3.89</u>	<u>100</u>	<u>Y2</u>	<u>7.07</u>	<u>20.34</u>	<u>2.46</u>	<u>-12</u>	<u>1.29</u>	<u>0.13</u>	<u>37.4</u>	"
0935	<u>3.90</u>	<u>100</u>	<u>Y2</u>	<u>7.02</u>	<u>20.33</u>	<u>2.45</u>	<u>-13</u>	<u>1.18</u>	<u>0.13</u>	<u>19.8</u>	"
0940	<u>3.90</u>	<u>100</u>	<u>3/4</u>	<u>7.18</u>	<u>20.33</u>	<u>2.41</u>	<u>-13</u>	<u>1.32</u>	<u>0.12</u>	<u>16.6</u>	"
0945	<u>3.93</u>	<u>100</u>	<u>1</u>	<u>7.11</u>	<u>20.74</u>	<u>2.37</u>	<u>-115</u>	<u>1.02</u>	<u>0.12</u>	<u>13.3</u>	"
0950	<u>3.96</u>	<u>200</u>	<u>1Y4</u>	<u>7.22</u>	<u>20.48</u>	<u>2.37</u>	<u>-118</u>	<u>0.93</u>	<u>0.12</u>	<u>13.3</u>	"
0955	<u>3.98</u>	<u>200</u>	<u>1Y2</u>	<u>7.23</u>	<u>20.03</u>	<u>2.36</u>	<u>-150</u>	<u>0.81</u>	<u>0.12</u>	<u>8.32</u>	"
1000	<u>3.97</u>	<u>200</u>	<u>1Y4</u>	<u>7.25</u>	<u>20.02</u>	<u>2.34</u>	<u>-152</u>	<u>0.72</u>	<u>0.12</u>	<u>9.90</u>	"
1005	<u>4.02</u>	<u>200</u>	<u>2</u>	<u>7.26</u>	<u>20.06</u>	<u>2.35</u>	<u>-154</u>	<u>0.68</u>	<u>0.12</u>	<u>7.80</u>	"
1010	<u>4.03</u>	<u>200</u>	<u>2Y4</u>	<u>7.26</u>	<u>20.16</u>	<u>2.34</u>	<u>-155</u>	<u>0.63</u>	<u>0.11</u>	<u>4.84</u>	"
1015	<u>4.01</u>	<u>200</u>	<u>2Y2</u>	<u>7.26</u>	<u>20.26</u>	<u>2.34</u>	<u>-156</u>	<u>0.65</u>	<u>0.11</u>	<u>3.84</u>	"
Remarks: Pump Intake Depth: <u>12.00'</u> (final pump 11.70')				Control Box Setting (Hz): <u>55.00 Hz</u>			Sampling: (Sample at 100-250 ml/min) <u>250 ml/min</u>				
PID Readings: 2.6 ppm											
Post Purge <u>13.55</u> <u>4.28</u> <u>200</u> <u>3</u> <u>7.31</u> <u>20.91</u> <u>2.38</u> <u>-138</u> <u>0.24</u> <u>0.12</u> <u>0.08</u> {clear, slight peat-like odor}											
SAMPLING											
Depth to Water Before Sampling: <u>4.01</u>											
Sample Methodology: EPA Low Flow											
Sample Name: <u>GC-MW24T</u> QC Sample: <u>MS + MSU</u>											
Sample Date/Time: <u>7/23/16 @ 1020</u>											
Sampler / Signature: <u>C. Miller</u>											
Filtered Metals Collected: <u>N / N</u> Filter Size: <u>0.45 mm</u>											
Sample Observations: <u>Clear, slight peat-like odor</u>											
Parameters: <u>VOC / SVOC / PCB / PEST / Metals / Filtered Metals / $\mu\text{g}/\text{L}$ / mg/L / GeoTech</u>											

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 245				Site: Gowanus Canal Remedial Investigation						
Field Crew: MUR/ERB/CW				Date: 7.15.10 Project #: 395863						
Well Depth (ft.): 16.08 DTW (ft.): 5.89 Water Column (ft.): 10.19 Well Diameter (in.): 2 Gal. per ft.: 0.163 Well Volume (gal.): 166 Depth of Screen (ft.): 6.08				Purge Methodology: Low Flow		Diameter	Gal. Per Foot	Diameter	Gal. Per Foot	
				2"	.163	5"		1.020		
				3"	.367	6"		1.469		
				4"	.653	8"		2.611		
				Water Quality Meter: Horiba U-5000D						
Field Parameters										
Time	DTW (ft)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Turbidity (NTU)	Color 80 Color/Odor
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	
Initial	1645	5.18	150	6.5	6.78	28.37	7.22	-264	0.26	95 (2) Surface like odor
1 VOL.	1650	6.80	150	6.5	7.33	29.81	7.21	-287	0.56	70 (0)
2 VOL.	1655	7.30	75	6.5	6.65	27.81	7.20	-337	0.19	70 0.4 "
3 VOL.	1700	8.00	150	6.5	6.80	28.85	7.07	-322	0.18	45 0.4 "
4 VOL.	1705	8.14	50	6.5	6.63	27.95	6.33	-341	0.19	40 0.4 "
5 VOL.	1710	8.24	50	6.5	6.65	29.30	6.34	-321	0.17	35 0.3 "
6 VOL.	1715	8.27	50	7.5	6.60	29.43	5.68	-353	0.17	35 0.3 "
7 VOL.	1720	8.94	150	7.5	6.6	29.38	5.62	-331	0.18	31 0.3 "
8 VOL.	1725	9.59	150	7.5	6.6	28.04	5.45	-324	0.18	26 0.3 "
9 VOL.										
10 VOL.										
Post-Purge										
Remarks:	Pump Intake Depth: 15.08			Control Box Setting (Hz): Development: 69.0 - 81.30			Sampling: (Sample at 100-250 ml/min) 81.30 -			
Sediments observed in Sample tubing. Located on well floor. Well ID 16.7' deep.										
SAMPLING										
Depth to Water Before Sampling: 9.50'										
Sample Methodology: tube ~ low flow w/ teflon lined tubing + 2" stainless purge										
Sample Name: JC-MU245 QC Sample: None										
Sample Date/Time: 7.15.10 1730										
Sampler / Signature: W. V. P.										
Filtered Metals Collected: <input checked="" type="checkbox"/> Y/N Filter Size: 0.45										
Sample Observations:										
Parameters: VOCs, SVOCs, total metals, filtered metals, PCBs, PSL										

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 24 I		Site: Gowanus Canal Remedial Investigation													
Field Crew: MR, CM, EB		Date: 7/15/2010 Project #: 395863													
Well Depth (ft.): 40.87		Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot									
DTW (ft.): 6.62			2"	.163	5"	1.020									
Water Column (ft.): 34.25		Low Flow	3"	.367	6"	1.469									
Well Diameter (in.): 2			4"	.653	8"	2.611									
Gal. per ft.: 0.163		Water Quality Meter:													
Well Volume (gal.): 25.97		Flotek													
Depth of Screen (ft.):		V-5000													
Field Parameters															
Time	DTW (ft)	Flow Rate (mL/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Turbidity (NTU)	% SRL	Color/Odor				
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3%	+/- 10 mV	+/- 10%	+/- 10%						
Initial	1620	7.23	500	0	8.29	25.56	1.6	-462	8.8	150	0.08				
1 VOL.	1625	7.24	500	1	8.29	23.21	1.6	-73	7.62	180	0.08				
2 VOL.	1630	7.35	500	2	8.34	20.93	1.64	-104	4.53	39	0.08				
3 VOL.	1635	7.23	350	2.5	6.37	21.14	1.61	-108	3.87	23	0.08				
4 VOL.	1640	7.17	350	2.6	8.37	20.96	1.60	-114	3.42	13	0.08				
5 VOL.	1645	7.14	350	3.1	6.38	21.31	1.58	-119	2.25	14	0.08				
6 VOL.	1650	7.23	350	3.7	8.38	21.84	1.56	-121	2.03	10	0.08				
7 VOL.	1655	7.22	350	4.5	8.38	21.62	1.54	-124	1.85	11	0.08				
8 VOL.	1700	7.22	300	5.2	6.38	21.81	1.53	-124	1.74	15	0.08				
9 VOL.	1705	7.23	300	6	8.38	21.88	1.51	-129	1.50	14	0.08				
10 VOL.	1710	7.23	300	6.5	6.38	21.74	1.50	-133	0.63	8.9	0.08				
Post-Purge	-----	SEE NEXT DATA SHEET	FOR CONTINUATION												
Remarks: Pump Intake Depth:				Control Box Setting (Hz): Development:				Sampling: (Sample at 100-250 mL/min)							
38.37															
67.00 Hz															
SAMPLING															
Depth to Water Before Sampling: 7.15															
Sample Methodology: Low Flow															
Sample Name: GW-MU-24I														QC Sample:	—
Sample Date/Time: 7/15/2010 @ 17:45															
Sampler / Signature: C. Smith															
Filtered Metals Collected: Y / N Filter Size: 0.45 microm															
Sample Observations:															
Parameters: VOCs, SVOCs, Metals, Filtered Metals, Mercury, Granite															

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Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 24 T		Site: Gowanus Canal Remedial Investigation								
Field Crew: MNP, CMA, EB		Date: 7/15/2010 Project #: 395863								
Well Depth (ft.): 40.87	Purge Methodology: Low Flow	Diameter: 2"	Gal. Per Foot: .163	Diameter: 5"	Gal. Per Foot: 1.020					
DTW (ft.): 6.62		3"	.367	6"	1.469					
Water Column (ft.): 34.25		4"	.653	8"	2.611					
Well Diameter (in.): 2										
Gal. per ft.: 0.163	Water Quality Meter: HORIBA U-5600									
Well Volume (gal.): 5.58										
Depth of Screen (ft.): 35.87										
Field Parameters										
Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Color/Odor
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	
Initial	1715	7.23	250	7	8.38	21.77	1.50	-135	0.60	10.0 0.08
1 VOL.	1720	7.23	250	7.5	8.37	21.66	1.50	-134	0.56	10.0 0.08
2 VOL.	1725	7.24	250	7.8	8.38	22.07	1.51	-138	0.50	7.0 0.08
3 VOL.	1730	7.16	200	8.2	8.37	22.78	1.50	-137	0.54	7.4 0.07
4 VOL.	1735	7.10	200	8.5	8.37	22.76	1.50	-140	0.46	7.0 0.08
5 VOL.	1740	7.02	75	8.6	8.35	23.28	1.53	-140	0.49	6.4 0.08
6 VOL.	1745	7.15	150	8.7	8.34	22.13	1.55	-134	0.48	8.6 0.08
7 VOL.										
8 VOL.										
9 VOL.										
10 VOL.										
Post-Purge	1720	6.96	300	9.5	8.79	22.36	1.64	-110	1.10	15 0.08
Remarks: Pump Intake Depth:					Control Box Setting (Hz):	Development:	Sampling: (Sample at 100-250 ml/min)			
38.37					67.00 Hz		100			
SAMPLING										
Depth to Water Before Sampling: 7.15										
Sample Methodology: Low Flow										
Sample Name: GC - MW24T QC Sample: —										
Sample Date/Time: 7/15/2010 @ 17:45										
Sampler / Signature: C. Smith										
Filtered Metals Collected: <input checked="" type="checkbox"/> N Filter Size: 0.45 microm										
Sample Observations:										
Parameters: VOCs SVOCs Metals, Filtered metals, Arsenic, Cyanide										

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D2

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	25S	Site: Gowanus Canal Remedial Investigation						
Field Crew:	C. Mills, C. Wurts	Date:	7/21/2010	Project #: 395863				
Well Depth (ft.):	26.8	Purge Methodology:	Low Flow	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot	
DTW (ft.):	20.7			2"	.163	5"	1.020	
Water Column (ft.):	6.1			3"	.367	6"	1.469	
Well Diameter (in.):	2			4"	.653	8"	2.611	
Gal. per ft.:	.163	Water Quality Meter:	Hanna					
Well Volume (gal.):	19.1		U.S.000					
Depth of Screen (ft.):	16.8							

Field Parameters												
Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor	
Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%		
1226	20.74	350	0	6.15	22.35	19.2	-143	1.37	0.22	32.4	gray, slight cloud, no odor	
1225	20.74	100	~1/2	6.15	22.47	21.0	-106	0.00	1.26	13.8	slight gray, clear	
1230	20.75	200	3/4	6.16	23.12	21.2	-114	0.00	1.27	15.7	"	
1235	20.74	150	1	6.16	23.79	21.0	-126	0.00	1.26	12.4	clear, no odor	
1240	20.75	150	1 1/2	6.15	24.08	21.0	-135	0.00	1.26	8.52	"	
1245	20.75	150	1 2/3	6.15	24.08	20.9	-141	0.00	1.25	4.89	"	
1250	20.75	150	2	6.16	23.92	20.9	-145	0.00	1.25	5.00	"	
→	Sample taken @		12.50									
Post-Purge	1415	20.74	200	3	6.21	23.76	20.8	-152	0.00	1.25	2.14	clear, no odor.

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)
2580 309.80 Hz 100 ml/min

PID Reading: 0.0 ppm

SAMPLING

Depth to Water Before Sampling: 20.75

Sample Methodology: EPA Low Flow

Sample Name: GC-MW25S

OC Sample: NONE

Sample Date/Time: 7-21-10 @ 1250

Sampler / Signature: C. Wurts

Filtered Metals Collected: 82N Filter Size: 0.45 micron

Sample Observations: clear, no odor

Parameters: VOC, SVOC, PEST, PCB, Metals, Filtered metals, mercury, cyanide



Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	2507	Site:	Gowanus Canal Remedial Investigation			
Field Crew:	CZ, CM	Date:	7-21-10 Project #: 395863			
Well Depth (ft.):	45.82	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
DTW (ft.):	20.06	Low Flow pump	2"	.163	5"	1.020
Water Column (ft.):	25.76	2" Gravel Gas Pump	3"	.367	6"	1.469
Well Diameter (in.):	2		4"	.653	8"	2.611
Gal. per ft.:	0.163	Water Quality Meter:				
Well Volume (gal.):	4.20	Horiiba V-52				
Depth of Screen (ft.):	40.82	Lamotte 20120F				

Field Parameters											
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	<0.3	Purge at 200-600		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	12:10	20.3	1.0	7.32	26.79	0.891	32	0.00	0.02	1.3	clear - no odors
	12:15	20.15	1.5	7.35	27.89	0.892	13	0.00	0.02	9.94	
	12:20	20.15	2.0	7.36	24.38	0.937	8	0.00	0.03	7.71	
	12:25	20.2	2.25	7.35	23.31	0.951	6	0.00	0.03	7.76	
	12:30	20.16	2.00	7.35	22.67	0.967	5	0.00	0.03	20.7	
	12:35	20.13	2.50	3.00	7.33	22.38	0.978	6	0.00	0.03	20.1
	12:40	20.13	2.30	3.5	7.34	21.61	0.995	5	0.00	0.03	5.46
	12:45	20.13	2.50	3.75	7.35	20.96	1.01	2	0.00	0.03	8.33
	12:50	20.13	2.50	4.0	7.37	21.31	0.999	-1	0.00	0.03	5.43
	12:55										begin sample collection
Post-Sample	13:25	20.13	2.50	6.5	7.95	28.97	0.856	-1	0.00	0.02	4.88
Post-Purge											

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

43.25

100.80

250

PID 0.0

SAMPLING

Depth to Water Before Sampling: 20.13

Sample Methodology: Low Flow

Sample Name: C. Zweig

QC Sample: N/A

Sample Date/Time: 7-21-10, 1250

Sampler / Signature: L. Zweig

Filtered Metals Collected: (Y/N) N Filter Size: 45 micron

Sample Observations: clear - no odors

Parameters: VOC, SVOC,pest, PCB, metals, Sulfide metals, cyanide/mercury

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW265		Site: Gowanus Canal Remedial Investigation									
Field Crew:	Tom Fowler / Mike Bascom		Date:	7/21/10 Project #: 395863								
Well Depth (ft.):	27.0	Purge Methodology:	Low-Flow									
DTW (ft.):	19.29	Diameter:	2"	Gal. Per Foot:	.163		Diameter:	5"	Gal. Per Foot:	1.020		
Water Column (ft.):	7.8		3"		.367			6"		1.469		
Well Diameter (in.):	2"		4"		.653			8"		2.611		
Gal. per ft.:	16.3	Water Quality Meter:	Horiba U-52									
Well Volume (gal.):	1,277 gallons	Depth of Screen (ft.):	10mtr 7.2000									
Field Parameters												
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor	
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%		
Initial	1140	19.30	300	21	6.40	14.72	1.64	-130	175	20.08	752 St. graybrown	
	1145	19.31	300	21	6.61	14.93	0.983	-159	7.9	0.08	125	
	1150	19.36	260	21.2	6.26	20.61	1.58	-164	6.62	0.08	82.6	
	1155	19.31	260	21.2	6.66	20.70	1.61	-166	5.94	0.08	47.2 clear	
	1200	19.36	260	21.5	6.74	21.19	1.61	-162	5.23	0.08	25.8	
	1205	19.35	260	21.8	6.76	21.88	1.61	-170	4.75	0.08	20.9	
	1210	19.34	240	23.2	6.78	22.57	1.61	-170	5.45	0.08	-2.01?	
	1215	19.34	200	23.5	6.80	22.56	1.60	-168	3.95	0.08	14.5	
	1220	19.33	170	23.9	6.81	22.61	1.60	-168	3.73	0.08	9.25	
	1225	19.33	140	24.3	6.82	22.41	1.60	-167	3.28	0.08	6.93	
	1230	19.32	140	24.6	6.82	22.55	1.60	-167	3.13	0.08	7.77	
Post-Purge	1235	19.30	145	25.0	6.80	22.70	1.60	-168	2.95	0.08	2.80	
Remarks:	Pump Intake Depth:		Control Box Setting (Hz):		Development:		Sampling: (Sample at 100-250 ml/min)					
	26.0'		94 Hz									
	1240 19.00		150.5.2		6.83 23.09 1.60		-168		2.84 0.08			2.30
	1245 Tank Sample											
	1250 19.39		240.7		6.93 22.89 1.65		-151		0.54 0.08			
	SAMPLING											
Depth to Water Before Sampling:	19.30											
Sample Methodology:	low flow											
Sample Name:	Tom Fowler		MW265		QC Sample:		None					
Sample Date/Time:	7/21/10		1245									
Sampler / Signature:	Tom Fowler											
Filtered Metals Collected:	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	Filter Size:									
Sample Observations:	Clear / no odor											
Parameters:	VOC, SVOC, Pesticides, PCB, Metals, Filter Metals										(CH ₄ , CN) (NH ₃)	

TS

* Resampling for metals, ~~etc~~, filtered metals.

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-265		Site: Gowanus Canal Remedial Investigation									
Field Crew: Dave Reamer		Date: 7/21/10 Project #: 395863									
Well Depth (ft.): 27.00	Purge Methodology: low flow	Diameter: 2"	Gal. Per Foot: .163	Diameter: 5"	Gal. Per Foot: 1.020						
DTW (ft.): 18.81		3"	.367	6"	1.469						
Water Column (ft.): 8.19	w/ 2" Grav/Grav pump	4"	.653	8"	2.611						
Well Diameter (in.): 2											
Gal. per ft.: 0.163	Water Quality Meter: Horiba U-52										
Well Volume (gal.): 1,33											
Depth of Screen (ft.):											
Field Parameters											
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1913	18.90	200	0	- Start pumping						light brown/no odor
	1915	18.91	250	0.1	6.94	19.88	1.72	+168	6.58	0.9	3.80 cloudy/no odor
	1942	19.08	250	5.0	6.90	16.13	1.73	+167	0.49	0.4	26 clear/no odor
Post-Purge											
Remarks:	Pump Intake Depth:				Control Box Setting (Hz):			Development:			Sampling: (Sample at 100-250 ml/min)
	26.0'										250
	- tide going out										
SAMPLING											
Depth to Water Before Sampling: 19.08											
Sample Methodology: low flow w/ 2" Grav/Grav pump and teflon lined tubing											
Sample Name: MW-265 QC Sample: none											
Sample Date/Time: 7/21/10 @ 1950											
Sampler / Signature: David Reamer											
Filtered Metals Collected: (Y) N Filter Size: 0.45 um											
Sample Observations: clear, no odor											
Parameters: Dissolved metals, total metals, Hg											

* Sample originally collected on 7/21/10 @ 1245 but it was not clear which bottle was for dissolved metals and which was for total metals. DR resampled at 1950 for total metals and dissolved metals only.



Page 1 of 2

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	261	Site:	Gowanus Canal Remedial Investigation	
Field Crew:	MJ TF	Date:	7/21/10 Project #:	395863
Well Depth (ft.):	42.14	Purge Methodology:	Diameter Gal. Per Foot	
DTW (ft.):	19.22	2" .163	5" 1.020	
Water Column (ft.):	22.92	3" .367	6" 1.469	
Well Diameter (in.):	3"	4" .653	8" 2.611	
Gal. per ft.:	.163	Water Quality Meter:		
Well Volume (gal.):	3,733	Hanna V52		
Depth of Screen (ft.):	37.14	In-N-Out 2020		

Field Parameters											
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Initial	Stabilization	<0.3'	Purge at 200-500	+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
	11:45	19.24	300/min	.3	6.43	21.15	1.53	-146	.07	.08	23.0 Clear
	11:50	19.25	150/min	.7	6.48	22.21	1.53	-155	.84	.08	9.42 Clear
	11:55	19.23	200/min	1.1	6.53	23.38	1.53	-157	.59	.08	10.09 clear
	12:00	19.23	200/min	1.5	6.56	24.00	1.55	-159	.58	.08	10.77 clear
	12:05	19.25	200/min	1.8	6.59	24.93	1.54	-158	.54	.08	11.4 Clear
	12:10	19.27	300/min	2.3	6.55	22.52	1.57	-159	.53	.08	20.10 Clear
	12:15	19.26	200/min	6.8	6.57	21.22	1.64	-157	.47	.08	18.70 Clear
	12:20	19.26	350/min	3.5	6.61	19.90	1.63	-158	.43	.08	11.86 Clear
	12:25	19.31	400/min	4.0	6.65	18.71	1.63	-158	.39	.08	9.32 Clear
	12:30	19.30	300/min	4.7	6.68	18.11	1.62	-160	.36	.08	3.91 Clear
	12:35	19.30	300/min	5.3	6.68	18.85	1.62	-164	.34	.08	3.57 Clear
	12:40	19.22	400/min	2.7	6.66	18.26	1.61	-166	.37	.08	3.50 Clear

Remarks: Pump Intake Depth: 39.64 Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

92.80

200 mL/min

Sample time: 12:50

PID: 0.1

SAMPLING											
Depth to Water Before Sampling:	19.22										
Sample Methodology:	low flow tubes										
Sample Name:	GC - MW ZG										
QC Sample:	X										
Sample Date/Time:	12:50 7/21/10										
Sampler / Signature:	Michael Beirne										
Filtered Metals Collected:	(Y/N) Filter Size: 0.45										
Sample Observations:	Well was very difficult to stabilize. Difficult										
Parameters:	VOCS, SVOCs, Metals, filtered metals, cyanide, pesticides, mercury, PCBs										

Page 2 of 2

Low-Flow Groundwater Sampling: Field Data Sheet

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 27 Shallow	Site: Gowanus Canal Remedial Investigation					
Field Crew: C.Zurlo / C.Mills	Date: 7/21/2010 Project #: 395863					
Well Depth (ft.): 25.54	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot	
DTW (ft.): 14.77	Low Flow	2"	.163	5"	1.020	
Water Column (ft.): 10.77		3"	.367	6"	1.469	
Well Diameter (in.): 2 in stainless steel		4"	.653	8"	2.611	
Gal. per ft.: 0.163	Water Quality Meter:					
Well Volume (gal.): 1.75 gal	Hanna 165000 Lamotte 2020					
Depth of Screen (ft.): 10						

Field Parameters											
Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
18:50 Initial	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
18:55	15	150	1/4	6.06	32.98	26.4	-142	0.55	1.61	93.3	black sewage odor
19:00	15.05	120	1/2	5.96	32.01	27.6	-147	0.40	1.69	79.9	black sediment visible in tubing
19:05	15.08	100	3/4	5.99	31.64	28.0	-150	0.38	1.72	45.6	"
19:10	15.12	140	3/4 over	6.09	31.22	28.0	-172	0.35	1.72	32.6	"
19:15	15.15	100	1.25	6.25	30.56	28.5	-191	0.32	1.76	11.6	"
19:20	15.21	100	1.15	6.28	30.33	28.7	-202	0.29	1.77	10.51	"
19:25	15.40	120	1.5	6.30	20.27	29.0	-175	0.27	1.79	0.00	"
19:30	15.40	130	1.5	6.30	29.91	29.1	-208	0.27	1.80	0.00	"
19:35	15.48	140	1.75	6.32	29.76	28.7	-217	0.26	1.77	0.00	"
19:40	15.50	130	2	6.34	29.53	28.7	-223	0.23	1.77	0.00	"
19:45	15.53	140	2.25	6.36	29.34	28.8	-224	0.23	1.77	0.00	"

Remarks: Pump Intake Depth: 24.5 Control Box Setting (Hz): 83.50 Hz Development: Sampling: (Sample at 100-250 ml/min) 150

Post Purge CM
2030 | 16.09 | 4 | 6.92 | 26.46 | 30.0 | -247 | 0.40 | 1.86 | 0.00 | clear, no odor

PID Reading: - 0.9

SAMPLING

Depth to Water Before Sampling: 15.53
 Sample Methodology: Low Flow
 Sample Name: GC-MW275 QC Sample: none
 Sample Date/Time: 7/21/2010 @ 1945
 Sampler / Signature: *[Signature]*
 Filtered Metals Collected: Y / N Filter Size: 0.45 micron
 Sample Observations: clear, no odor.
 Parameters: VOC, SVOC, Pesticides, PCB metals, Filtered metals Hg, Cr

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	27 I	Site: Gowanus Canal Remedial Investigation		
Field Crew:	MVP, CZ	Date: 7/22/10 Project #: 395863		
Well Depth (ft.):	43.61	Purge Methodology:	Diameter	Gal. Per Foot
DTW (ft.):	14.82	low flow	2"	.163
Water Column (ft.):	28.79		3"	.367
Well Diameter (in.):	2		4"	.653
Gal. per ft.:	0.163	Water Quality Meter:	Diameter	Gal. Per Foot
Well Volume (gal.):		H01ha-52	5"	1.020
Depth of Screen (ft.):	5		6"	1.469
			8"	2.611

Field Parameters											
Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
1652	14.96	150	0	8.25	31.20	1.79	-53	2.06	0.06	25.6	brown/grey, slight sewage odor
1657	15.06	200	0.15	7.57	25.42	3.84	-53	0.00	0.14	37.0	"
1702	15.05	240	4.75	7.58	23.07	3.98	-55	0.00	0.15	35.5	"
1709	15.05	240	1	7.64	22.08	3.97	-58	0.00	0.15	27.1	"
1714	15.1	240	1.5	7.74	21.48	3.92	-62	0.00	0.14	16.5	"
1719	15.1	250	2.0	7.82	21.13	3.87	-67	0.00	0.14	13.0	"
1724	15.08	240	2.25	7.92	20.70	3.84	-73	0.00	0.14	13.1	"
1729	15.08	250	4.75	8.00	20.48	3.81	-79	0.00	0.14	11.2	"
1730											began sample collection
Post-Purge	1840	14.94	150	3.25	8.21	23.57	3.13	-79	0.00	0.11	15.8

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

40.80

91.10 Hz

40.80 Hz

89.96 - 90.96

PID reading = 0.8

SAMPLING

Depth to Water Before Sampling: 15.08

Sample Methodology: low flow

Sample Name: 27 I

QC Sample: NO

Sample Date/Time: 07/22/10

Sampler / Signature:

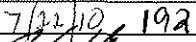
Filtered Metals Collected: N Filter Size:

Sample Observations: a resonance noted upon filling vials -

Parameters: VOC, SVOC, PEST, PCB, metals, total metals, cyanide, mercury

Low-Flow Groundwater Sampling: Field Data Sheet

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 28.S-A		Site: Gowanus Canal Remedial Investigation									
Field Crew: EB, cm, MVP, CZ		Date: 7/22/10 Project #: 395863									
Well Depth (ft.): 13.20		Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot					
DTW (ft.): 9.00		low flow	2"	.163	5"	1.020					
Water Column (ft.): 4.20			3"	.367	6"	1.469					
Well Diameter (in.): 2			4"	.653	8"	2.611					
Gal. per ft.: 0.163		Water Quality Meter:									
Well Volume (gal.):		Noriba-S4									
Depth of Screen (ft.): 10											
Field Parameters											
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Initial Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
19:24	9.45	25		7.86	25.06	5.49	-39	0.13	0.22	20.2	
19:25											begin sample collection
19:30											well went dry
Post-Purge											
Remarks: Pump Intake Depth:	12.20			Control Box Setting (Hz):	71.00 Hz			Sampling: (Sample at 100-250 ml/min)	71.00 Hz		
SAMPLING											
Depth to Water Before Sampling:	9.45										
Sample Methodology:	low flow										
Sample Name:	28.S										
Sample Date/Time:	7/22/10 1925										
Sampler / Signature:											
Filtered Metals Collected:	(Y) N Filter Size:										
Sample Observations:	No resonance upon filling vials										
Parameters:	VO As, 2 and 1/2 amber jars collected										

well continually went dry - drained as much volume b/f

going dry



Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW 285-B										Site: Gowanus Canal Remedial Investigation		
Field/Crew:	TF RB										Date: 7/23 Project #: 395863		
Well Depth (ft.):	132 ft		Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot						
DTW (ft.):	10.47 ft			2"	.163	5"	1.020						
Water Column (ft.):	2.369			3"	.367	6"	1.469						
Well Diameter (in.):	2"			4"	.653	8"	2.611						
Gal. per ft.:	.163		Water Quality Meter:										
Well Volume (gal.):	163 gal		Hanna VS2										
Depth of Screen (ft.):	3.18		Lumetec 2000										
Field Parameters													
Time	DTW (ft)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)		Salinity (%)	Turbidity (NTU)	Color/Odor	
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	+/- 10%		
9:00	10.47	100 ml/min	1	6.63	23.7	6.82	-82	3.4	0.0	32.3	greyish		
Post-Purge													
Remarks:	Pump Intake Depth:		12.18	Control Box Setting (Hz):		Development:	Sampling: (Sample at 100-250 ml/min)						
							78.0 100 ml/min						
							Sample time 9:05 well ran dry at 10:35						
							PDI: 355 ppm Purged 350 mL before sampling.						
SAMPLING													
Depth to Water Before Sampling:	10.37												
Sample Methodology:	Tubing, Low flow												
Sample Name:	TF GC MW 285 ac Sample: None												
Sample Date/Time:	10.5 7/23/10												
Sampler / Signature:	J. Smith												
Filtered Metals Collected: <input checked="" type="radio"/> N Filter Size: .45													
Sample Observations:													
Parameters:	Metals	Filtered metals	Cyanide										



Page # 1 of 2

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	GC-MW 28I	Site:	Gowanus Canal Remedial Investigation				
Field Crew:	E3/Sd	Date:	7/21/10	Project #: 395063			
Well Depth (ft.):	36.78	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot	
DTW (ft.):	5.27	Low Flow	2"	.163	5"	1.020	
Water Column (ft.):	31.51		3"	.367	6"	1.469	
Well Diameter (in.):	2"		4"	.653	8"	2.611	
Gal. per ft.:	0.163	Water Quality Meter:					
Well Volume (gal.):	5,14						
Depth of Screen (ft.):	31.78	14-52 2010					

Field Parameters											
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Initial	Stabilization	<0.3'	Purge at 200-500	+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
	1525	5.21	250	-	7.00	2925	0.898	-140	3.70	0.05	130
	1530	5.30	250	0.6	7.20	25.32	1.09	-153	1.50	0.05	120
	1535	5.30	250	1.1	7.06	25.00	1.17	-150	1.09	0.06	70
	1540	5.24	260	1.3	7.06	24.90	1.21	-150	0.92	0.06	500
	1545	5.28	260	1.75	7.08	24.77	1.22	-148	0.82	0.06	370
	1550	5.30	260	2.0	7.08	24.64	1.22	-148	0.78	0.06	260
	1555	5.30	260	2.5	7.08	24.01	1.19	-149	0.71	0.06	150
	1600	5.30	275	2.8	7.08	23.77	1.18	-150	0.61	0.06	90
	1605	5.30	275	3.3	7.07	23.65	1.18	-153	0.57	0.06	60
Post-Purge	1610	5.30	275	4.0	7.05	23.08	1.18	-152	0.55	0.06	50
	1615	5.30	270	4.5	7.05	22.99	1.18	-154	0.50	0.06	40
	1845	5.20	360	8.5	7.02	21.95	1.21	-145	1.83	0.06	21

Remarks: Pump Intake Depth: 34.28 Control Box Setting (Hz): 60.90 Development: Sampling: (Sample at 100-250 ml/min) 200 - 150

Sheen on Pump Water:

PID = 0.8

SAMPLING											
Depth to Water Before Sampling:				5.30							
Sample Methodology:				Toke							
Sample Name:	GC-MW28I				QC Sample:						
Sample Date/Time:	7/21/10				1705						
Sampler / Signature:	C. Brant				CJL						
Filtered Metals Collected:	(Y/N)			045							
Sample Observations:	Sheen on Sample Water.										
Parameters:	VOC, SVOC, Metals, Filtered Metals, PCB, PEST, CN, TS										

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Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW-28T	Site: Gowanus Canal Remedial Investigation					
Field Crew:	EB, SQ	Date: 7/21/10 Project #: 395863					
Well Depth (ft.):	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot		
DTW (ft.):		2"	.163	5"	1.020		
Water Column (ft.):	See Page #1	3"	.367	6"	1.469		
Well Diameter (in.):		4"	.653	8"	2.611		
Gal. per ft.:	Water Quality Meter:						
Well Volume (gal.):							
Depth of Screen (ft.):							

Field Parameters											
Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
1620	5.30	270	4.75	7.05	23.06	1.18	-154	0.47	0.06	35	Clear - Peter like odor.
1625	5.30	270	5.0	7.04	23.05	1.18	-153	0.54	0.06	34	
1630	5.30	270	5.5	7.03	23.11	1.17	-154	0.45	0.06	27	
1635	5.30	270	5.9	7.03	23.22	1.17	-154	0.42	0.06	22	
1640	5.30	250	6.4	7.04	23.25	1.17	-155	0.39	0.06	17	
1645	5.30	220	6.6	7.05	23.28	1.17	-156	0.37	0.06	16	
1650	5.30	220	6.8	7.06	23.29	1.16	-157	0.36	0.06	10	
1655	5.30	220	7.0	7.06	23.74	1.16	-157	0.30	0.06	9.3	
1700	5.30	200	7.2	7.06	23.82	1.16	-156	0.37	0.06	9.1	▼

Post-Purge Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

See Page #1

SAMPLING											
Depth to Water Before Sampling:											
Sample Methodology:											
Sample Name: QC Sample: See Page #1											
Sample Date/Time:											
Sampler / Signature:											
Filtered Metals Collected: Y / N Filter Size:											
Sample Observations:											
Parameters:											

JB

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	295	Site: Gowanus Canal Remedial Investigation					
Field Crew:	MB TF	Date:	7/21/10	Project #: 395863			
Well Depth (ft.):	13.16	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot	
DTW (ft.):	8.61	Low flow	2"	.163	5"	1.020	
Water Column (ft.):	7.55		3"	.367	6"	1.469	
Well Diameter (in.):	2		4"	.653	8"	2.611	
Gal. per ft.:	.163	Water Quality Meter:					
Well Volume (gal.):		Hanna U-52					
Depth of Screen (ft.):	3.16	Lamotte					

Field Parameters											
Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Initial	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	
	17:55	7.38	150/ml	1	6.50	25.00	3.51	-78	.68	.18	59.56 greyish, petro like odor
	18:00	7.43	200/ml	2	6.47	25.99	3.47	-82	.68	.18	37.50 greyish, petro like odor
	18:05	7.37	100/ml	3	6.46	26.21	3.54	-84	.72	.18	39.50 greyish, petro like odor
	18:10	7.65	100/ml	4	6.49	25.53	3.49	-90	.70	.18	38.40 grey, sulfide like pyrite
	18:15	8.72	220/ml	5	6.50	26.38	3.36	-91	.59	.18	38.70 grey
	18:20	8.88	150/ml	6	6.50	26.75	3.41	-92	.57	.18	32.0 clearing up
	18:25	9.07	200/ml	7	6.50	27.36	3.42	-93	.59	.18	23.5 clear, slightly cloudy
	18:30	9.24	200/ml	8	6.49	27.59	3.40	-93	.55	.18	21.8 clear
	18:35	8.81	100/ml	9	6.50	27.30	3.39	-93	.60	.18	22.5 clear
Post-Purge	18:45										Cloudy

Remarks: Pump Intake Depth: 12.16 Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

145
Very slow to recharge, only filled 400L and 3.5 amber bottles
100/ml
Sample time = 18:45

PID: 5.0 ppm
Small sheen appears at 18:05 in bucket

SAMPLING										
Depth to Water Before Sampling:	9.72									
Sample Methodology:	tubing, low flow									
Sample Name:	GC M6 295			QC Sample:	None					
Sample Date/Time:	7/21	18:45								
Sampler / Signature:	Michael Brisebois									
Filtered Metals Collected:	(Y/N)	Filter Size:	.45							
Sample Observations:	Low rate of recharge									
Parameters:	VOC, SVOC, Acetate, Filter metals, PCBs, Mercury, fluoride									

~~Acetates~~

{ 930 day - No reading to top of pump ~12
943 11:58pm

946 11:54
952 11:55

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	29 Shallow -A		Site: Gowanus Canal Remedial Investigation								
Field Crew:	E. Brandt C. Mills		Date: 7/22/10 Project #: 395063								
Well Depth (ft.):	13.28	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot					
DTW (ft.):	10.16	Low Flow	2"	.163	5"	1.020					
Water Column (ft.):	3.12		3"	.367	6"	1.469					
Well Diameter (in.):	2"		4"	.653	8"	2.611					
Gal. per ft.:	0.163	Water Quality Meter:									
Well Volume (gal.):	0.515 ¹	Hanna 45000									
Depth of Screen (ft.):	3.28	Ta-Mate 2020									
Field Parameters											
Time	DTW (ft)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	~370	Cloudy, slight periods of
Initial	1715	9.98	0	6.45	28.35	4.24	-83	0.55	0.22	240	"
	1720	10.57	2 1/4	6.40	28.01	4.20	-85	0.49	0.22	240	"
Post-Purge											
Remarks:	Pump Intake Depth:			Control Box Setting (Hz):			Development:			Sampling: (Sample at 100-250 ml/min)	
	12.28 ft			77.20							
SAMPLING											
Depth to Water Before Sampling:	10.81'										
Sample Methodology:	EPA Low Flow										
Sample Name:	GCP - MW 295										
Sample Date/Time:	7/22/10 @ 1725										
Sampler / Signature:	E. Brandt										
Filtered Metals Collected:	@ 1 N Filter Size: 0.45 micron										
Sample Observations:	Well dry - collected 3 1L amber, 1 1L MW, plastic - No Recharge in 20 min.										
Parameters:	VOC SVOC BTEX METALS FILTERED METALS ETM Hg+										

Low-Flow Groundwater Sampling: Field Data Sheet

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW29I										Site: Gowanus Canal Remedial Investigation		
Field Crew:	Tom Fowler / Mr. Ke Briss										Date: 8/20 7/21/10 Project #: 395863		
Well Depth (ft.):	6.20	37.4	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot						
DTW (ft.):	6.20		Low Flow	2"	.163	5"	1.020						
Water Column (ft.):	31.2			3"	.367	6"	1.469						
Well Diameter (in.):	7"			4"	.653	8"	2.611						
Gal. per ft.:	0.163		Water Quality Meter:										
Well Volume (gal.):	501		Horiba										
Depth of Screen (ft.):	32.4	37.4	452										
Field Parameters													
Time	DTW (ft)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor		
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%			
Initial	1745	6.22	240	5	7.63	20.4	3.23	-179	2.4	0.12	6.0	Clear	
	1750	6.23	330	7.8	7.53	19.6	3.37	-175	0.00	0.12	13.3	n	
	1755	6.23	330	1.3	7.53	20.0	3.33	-175	0.00	0.12	8.8	n	
	1800	6.80	290	2.2	7.80	20.20	3.29	-173	0.00	0.12	4.43	n	
	1805	6.7	300	2.7	7.80	20.19	3.28	-173	0.00	0.12	6.24	n	
	1810	6.8	300	3.0	7.49	19.98	3.25	-172	0.00	0.12	5.69	n	
			250										
	1815		Take N Sample								n		
Post-Purge	1845	6.8	240	7.0	7.51	23.6	3.01	-164	0.00	0.12	4.93	n	
Remarks:	Pump Intake Depth:			Control Box Setting (Hz):			Development:	Sampling: (Sample at 100-250 ml/min)					
	34.95			90									
SAMPLING													
Depth to Water Before Sampling:	6.8												
Sample Methodology:	Low Flow												
Sample Name:	MW29I 7/21/10 1815												
Sample Date/Time:	Tom Fowler / Jev Jacobs												
Sampler / Signature:													
Filtered Metals Collected: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Filter Size: 145													
Sample Observations:	Clear												
Parameters:	Vocs, SVocs, PCBs, Lead, Metals, UNF/FIC												

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 33S		Site: Gowanus Canal Remedial Investigation																																																																																																																																																																															
Field Crew: EB, CM, MP		Date: 7/15/10 Project #: 395863																																																																																																																																																																															
Well Depth (ft.): 13.19 DTW (ft.): 4.15 Water Column (ft.): 9.04 Well Diameter (in.): 2 Gal. per ft.: 0.163 Well Volume (gal.): 1047 Depth of Screen (ft.): 3.19		<u>Purge Methodology:</u> Low Flow		Diameter	Gal. Per Foot	Diameter	Gal. Per Foot																																																																																																																																																																										
		2"	.163	5"	1.020																																																																																																																																																																												
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Time	DTW (ft)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Sal	Color/Odor																																																																																																																																																																						
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Remarks: Pump Intake Depth: 12.19				Control Box Setting (Hz): Development:				Sampling: (Sample at 100-250 ml/min)																																																																																																																																																																									
								70 ml/min.																																																																																																																																																																									
SAMPLING																																																																																																																																																																																	
Depth to Water Before Sampling: 6.79																																																																																																																																																																																	
Sample Methodology: Tube w/ 2" Grindas pump and fallen line tubing																																																																																																																																																																																	
Sample Name: GC-MW 33S		QC Sample: None																																																																																																																																																																															
Sample Date/Time: 7/15/10 1115																																																																																																																																																																																	
Sampler / Signature: M.J.																																																																																																																																																																																	
Filtered Metals Collected: (Y) N Filter Size: 0.45																																																																																																																																																																																	
Sample Observations: Very low flow - <100ml/min, DTW not stable,																																																																																																																																																																																	
Parameters: VOC, SVOC, Metals, Filtered metals, PCB, Post, Hg, CN																																																																																																																																																																																	

DR

D-0715-2010-01
Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 33 I	Site: Gowanus Canal Remedial Investigation		
Field Crew: EB, CM, MP	Date: 7/15/10 Project #: 395863		
Well Depth (ft.): 38.88'	Purge Methodology:	Diameter	Gal. Per Foot
DTW (ft.): 4.75	Low Flow	2"	.163
Water Column (ft.): 34.13		3"	.367
Well Diameter (in.): 2 in		4"	.653
Gal. per ft.: 0.163	Water Quality Meter:	Diameter	Gal. Per Foot
Well Volume (gal.): 5,56	u-52	5"	1.020
Depth of Screen (ft.): 33.98'		6"	1.469
		8"	2.611

Field Parameters												
Time	DTW (ft)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	‰ Salinity	Color/Odor	
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%			
Initial	0650	4.75	400	0	6.63	20.96	1.44	-37	2.38	16	0.07 Petrol like odors	
1 VOL.	0855	4.92	400	0.5	6.76	18.98	1.43	-100	1.16	10.90	0.07	
2 VOL.	0900	4.62	400	10	6.80	19.15	1.44	-115	0.88	15	0.07	
3 VOL.	0905	4.91	400	1.5	6.70	19.15	1.43	-117	0.65	12	0.07	
4 VOL.	0910	4.90	400	2.0	6.79	19.15	1.43	-118	0.56	9.6	0.07	
5 VOL.	0915	4.91	400	2.5	6.82	19.12	1.43	-118	0.51	6.8	0.07	
6 VOL.	0920	4.91	400	3.0	6.78	19.06	1.43	-117	0.48	6.4	0.07	
7 VOL.	0925	4.91	400	3.5	6.80	19.00	1.43	-118	0.52	9.3	0.07	
8 VOL.	0930	4.91	400	4.0	6.81	17.01	1.42	-118	0.52	6.0	0.07	
9 VOL.												
10 VOL.												
Post-Purge	1115	4.81	350	-	6.81	20.23	1.41	-106	0.34	18	0.07	

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

36.38'

PID ~ 1.2 ppm

⑧ Well located on Nevins St, across from former Scranton & Lehigh Coal Co bldg.

SAMPLING

Depth to Water Before Sampling: 4.91

Sample Methodology: tube w/ 2" Gravel's pump + Teflon lined tubing

Sample Name: GC-MW 33I QC Sample: w/o Date collected D-0715 2010-01

Sample Date/Time: 7/15/2010 @ 0930

Sampler / Signature: MJP

Filtered Metals Collected: G/N Filter Size: 0.45

Sample Observations: Sample flow rate @ 150ml/min. Duplicate (D-071510-01) taken

Parameters: VOC, SVOC, Metals, Filtered metals, PCB, Pest., +Hg, Cd,

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 345		Site: Gowanus Canal Remedial Investigation									
Field Crew: EB, CM		Date: 7/16/2010 Project #: 395063									
Well Depth (ft.): 12.78	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot						
DTW (ft.): 3.36	LOW FLOW	2"	.163	5"	1.020						
Water Column (ft.): 9.42		3"	.367	6"	1.469						
Well Diameter (in.): 2"		4"	.653	8"	2.611						
Gal. per ft.: 0.163	Water Quality Meter:										
Well Volume (gal.): 1.54	FLORIDA										
Depth of Screen (ft.): 2.38	U-5000										
Field Parameters											
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	0.00	+/- 10%	
1020	3.23	150	<0.5	6.85	29.04	5.55	-84	0.72	0.22	64.7	Petrol like odor
1025	3.51	125	<0.5	7.07	28.85	5.13	-109	0.72	0.22	64.4	
1030	2.96	125	<0.5	7.12	28.06	5.17	-109	0.00	0.20	43.6	
1035	3.98	100	~0.5	7.14	27.66	6.19	-114	0.00	0.21	40.3	
1040	3.99	125	~0.5	7.16	27.37	5.10	-116	0.00	0.20	44.3	
1045	4.02	100	~1	7.18	27.60	4.91	-116	0.00	0.19	41.6	
1050	4.02	100	~1	7.17	27.57	4.82	-113	0.00	0.19	41.7	
1055	4.01	125	~1	7.15	27.68	4.71	-108	0.00	0.18	32.0	
1100	4.03	125	>1	7.13	27.25	4.65	-104	0.00	0.18	29.9	
1105	4.03	125	>1	7.12	27.39	4.60	-102	0.00	0.18	29.0	
1110	4.0	125	>1.5	7.12	27.82	4.50	-102	0.00	0.17	19.7	
→	SEE NEXT PAGE FOR CONTINUATION										
Remarks: Pump Intake Depth:	Control Box Setting (Hz): Development: 54.10 Hz				Sampling: (Sample at 100-250 ml/min) 150 ml/min						
11.78 ft											
SAMPLING											
Depth to Water Before Sampling: 4.03											
Sample Methodology: Low Flow											
Sample Name: GIC-MW345	QC Sample: none										
Sample Date/Time: 7/16/2010 @ 11:58											
Sampler / Signature: CM - A MULIS											
Filtered Metals Collected: Ni N Filter Size: 0.45											
Sample Observations: Petrol-like odor											
Parameters: VOC / SVOC / Metals / Filters / PCBs / Cyanide / Mercury											

Page 4 of 2

(B3)

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 34S		Site: Gowanus Canal Remedial Investigation										
Field Crew: EB, CM		Date: 7/16/2010 Project #: 395063										
Well Depth (ft.): 12.98	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot							
DTW (ft.): 3.36	Low Flow	2"	.163	5"	1.020							
Water Column (ft.): 9.442	Column	3"	.367	6"	1.469							
Well Diameter (in.): 2"		4"	.653	8"	2.611							
Gal. per ft.: 0.163	Water Quality Meter:											
Well Volume (gal.): 154	HORIBA											
Depth of Screen (ft.): 21.32	11.5000											
Field Parameters												
Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor	
Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%		
1115	4.03	140	~1.5	7.13	27.85	3.27	-104	0.00	0.16	11.8		
1120	4.03	140	~2	7.14	27.77	3.94	-110	0.00	0.15	6.85		
1125	4.03	150	~2	7.16	27.82	3.70	-117	0.00	0.14	5.59		
1130	4.03	150	~25	7.16	27.90	3.59	-122	0.00	0.13	6.62		
1135	4.05	150	~25	7.17	28.00	3.44	-131	0.00	0.12	4.73		
1140	4.03	150	~2.8	7.18	28.14	3.38	-144	0.00	0.12	6.01		
1145	4.02	150	~3	7.16	28.29	3.37	-161	0.00	0.12	6.23		
1150	4.03	150	~3	7.16	28.36	3.41	-168	0.00	0.12	5.67		
1155	4.03	150	~3.5	7.17	28.38	3.45	-173	0.00	0.13	5.11		
		150 ml/min										
Post-Purge	1310	4.04	150	~4	7.22	32.48	5.99	-192	0.00	0.25	13.3	
Remarks: Pump Intake Depth:					Control Box Setting (Hz):	Development:			Sampling: (Sample at 100-250 ml/min)			
11.3868					54.1042				150 ml/min			
PID HEADSPACE 21 ppm												
SAMPLING												
Depth to Water Before Sampling:	4.03											
Sample Methodology:	Low Flow											
Sample Name:	GC - New 34S											
QC Sample:	None											
Sample Date/Time:	7/16/10 @ 11:55											
Sampler / Signature:	CB/JM											
Filtered Metals Collected:	(Y/N) Filter Size: 0.45											
Sample Observations:	VOC / SVOC / metals / filtered metals / PCB / cyanide / mercury											
Parameters:	VOC / SVOC / metals / filtered metals / PCB / cyanide / mercury											

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DR

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	34 I	Site: Gowanus Canal Remedial Investigation			
Field Crew:	EB, CM	Date: 7/16/2010 Project #: 395863			
Well Depth (ft.):	34.64	Purge Methodology:	Diameter	Gal. Per Foot	Diameter
DTW (ft.):	3.60	Low Flow	2"	.163	5"
Water Column (ft.):	31.04		3"	.367	6"
Well Diameter (in.):	3.5" N 2"		4"	.653	8"
Gal. per ft.:	0.163	Water Quality Meter:			
Well Volume (gal.):	5,06	Hanna			
Depth of Screen (ft.):		V-5000			

Field Parameters											
Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Initial	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	
	1020	6.43	480	0.1	6.91	21.41	1.30	-143	4.88	0.07	75.9 slight Petrol like odors
	1025	6.65	400	1.2	7.12	21.02	1.33	-249	1.40	0.07	17.0
	1030	6.50	400	1.5	7.19	21.65	1.35	-286	1.30	0.07	6.40
	1035	6.50	290	2.0	7.22	21.32	1.32	-302	1.11	0.07	4.87
	1040	6.48	290	2.4	7.24	21.45	1.33	-313	1.02	0.07	2.55
	1045	6.52	290	2.6	7.24	21.47	1.32	-320	0.93	0.07	2.81
	1050	6.60	290	3.0	7.26	21.21	1.31	-324	0.90	0.07	2.90
	1055	6.53	290	4.0	7.35	22.64	1.30	-323	0.74	0.07	1.70
	1100	6.62	290	4.1	7.36	21.42	1.30	-332	0.71	0.06	1.28
Post-Purge	1105	6.48	200	4.6	7.35	22.29	1.28	-337	0.60	0.06	0.92
	1110	6.48	200	4.8	7.35	23.19	1.28	-339	0.56	0.06	1.09
	1155	7.48	200	5.1	7.52	29.45	1.18	-298	0.99	0.06	2.72

Remarks: Pump Intake Depth: 32.14 ft Control Box Setting (Hz): Development: 46.40 Hz Sampling: (Sample at 100-250 ml/min) 44.30

PID Head space: 0.7 ppm

SAMPLING											
Depth to Water Before Sampling:	6.48										
Sample Methodology:	Low Flow										
Sample Name:	GW - MW 34 I										
Sample Date/Time:	7/16/2010	1115									
Sampler / Signature:	EB	Ed Brante									
Filtered Metals Collected:	N	Filter Size: 0.45									
Sample Observations:											
Parameters:	VOC, SVOC, PCB, Pest., Metals, F:Heavy Metals, Cu, Hg										



Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-35S		Site: Gowanus Canal Remedial Investigation									
Field Crew: EC, SQ		Date: 7/21/10 Project #: 395863									
Well Depth (ft.): 13.28	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot						
DTW (ft.): 5.23	Low Flow	2"	.163	5"	1.020						
Water Column (ft.): 8.05		3"	.367	6"	1.469						
Well Diameter (in.): 2.1m		4"	.653	8"	2.611						
Gal. per ft.: 0.163	Water Quality Meter: 1400.11C7020										
Well Volume (gal.): 1,311	U.S. Gal.										
Depth of Screen (ft.): 3.28											
Field Parameters											
Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
0925	5.51	225	0.25	7.28	26.37	6.60	-50	0.0	0.23	110	slight yellow / slight odor
0930	5.70	225	0.5	7.24	26.49	5.30	-50	0.0	0.21	230	↓ " same ↓ "
0935	6.01	225	0.75	7.31	26.54	2.34	-55	0.0	0.07	45	↓ " same ↓ "
0940	6.11	200	1.0	7.51	26.65	1.57	-67	0.0	0.05	47	↓ " same ↓ "
0945	6.27	200	1.15	7.55	26.88	1.53	-64	0.0	0.05	53	↓ " same ↓ "
0950	6.43	200	1.30	7.55	26.89	1.47	-71	0.0	0.04	27	↓ " same ↓ "
0955	6.69	150	1.50	7.56	27.35	1.41	-74	0.0	0.04	21	↓ " same ↓ "
1000	6.84	150	1.60	7.58	27.53	1.42	-74	0.0	0.04	13	↓ " same ↓ "
1005	7.00	150	1.75	7.62	27.85	1.40	-74	0.0	0.04	81	↓ " same ↓ "
1010	7.06	125	1.90	7.60	28.01	1.40	-73	0.0	0.04	10	↓ " same ↓ "
1015											
1020											
1025	8.27	100	2.5	7.58	34.93	1.68	-46	0.0	0.05	7.5	slight yellow / slight
Post-Purge											petroleum odor
Remarks: Pump Intake Depth:	Control Box Setting (Hz):			Development:			Sampling: (Sample at 100-250 ml/min)				
				63.5 Hz			125				
SAMPLING											
Depth to Water Before Sampling:	7.11										
Sample Methodology:	Low Flow										
Sample Name:	GC-MN 35-S			QC Sample: N/A							
Sample Date/Time:	7/21/10 1025										
Sampler / Signature:	S. J. Sun Jury										
Filtered Metals Collected:	<input checked="" type="checkbox"/> N Filter Size: metals										
Sample Observations:	Min										
Parameters:	See LOCs										

BB

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-35I		Site: Gowanus Canal Remedial Investigation							
Field Crew: EB, SQ		Date: 7/21/10 Project #: 395863							
Well Depth (ft.): 34.23	Purge Methodology:	Diameter	Gal. Per Foot		Diameter	Gal. Per Foot			
DTW (ft.): 5.38	low flow				2"	.163		5"	1.020
Water Column (ft.): 28.85					3"	.367		6"	1.469
Well Diameter (in.): 2 in					4"	.653		8"	2.611
Gal. per ft.: 0.163	Water Quality Meter:								
Well Volume (gal.): 4,70	U.S.								
Depth of Screen (ft.): 29.83									

Field Parameters											
Time	DTW (ft)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
0910 Initial	5.32	175	-	6.86	2806	1.41	-106	7.16	0.07	27	Clear
0915	5.37	300	0.4	6.76	2186	1.42	-149	1.63	0.07		Pump issue - R. start below
Restart *	0935	603	300	0.5	6.85	28.34	1.44	-115	2.74	0.07	90
	0940	6.28	300	0.7	6.83	23.96	1.37	-126	1.14	0.07	85
	0945	6.28	240	1.1	6.83	23.39	1.38	-137	1.38	0.07	60
	0950	6.31	240	1.5	6.83	23.56	1.38	-140	0.78	0.07	45
	0955	6.33	240	1.7	6.82	23.62	1.38	-142	0.72	0.07	28
	1000	6.36	220	2.0	6.82	29.02	1.37	-144	0.65	0.07	15
	1005	6.36	270	2.15	6.83	24.00	1.38	-145	0.61	0.07	10
	1010	6.36	270	2.5	6.83	23.58	1.38	-147	0.67	0.07	8.5
	1015	6.38	270	2.7	6.83	23.50	1.38	-148	0.56	0.07	7.2
Post-Purge	1120	6.31	180	4.0	6.90	29.05	1.34	-129	0.78	0.07	9.5

Remarks: Pump Intake Depth: 31.73 Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

64.70 - 64.30

180 - 175 ml/min

Ground fault issue w/generator @ 0915 → no NTU reading

PCP - 1.8 ppm.

SAMPLING										
Depth to Water Before Sampling:	Le. 40									
Sample Methodology:	Tube									
Sample Name:	GC-MW35I									
Sample Date/Time:	7/21/10 1020									
Sampler / Signature:	F. Brandt 6/22?									
Filtered Metals Collected:	A1 N Filter Size: 0.45									
Sample Observations:	Sheen on Pulse water									
Parameters:	VOC, SVOC, metals, filtered metals, PCB, best, CN, Hg									

BB

←

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 36S		Site: Gowanus Canal Remedial Investigation										
Field Crew: MVP, CZ		Date: 7/22/10 Project #: 395863										
Well Depth (ft.): 12.29 DTW (ft.): 3.89 Water Column (ft.): 8.4		Purge Methodology: Low Flow		Diameter	Gal. Per Foot	Diameter	Gal. Per Foot					
				2"	.163	5"	1.020					
				3"	.367	6"	1.469					
Well Diameter (in.): 2 Gal. per ft.: .163 Well Volume (gal.): 1,37 Depth of Screen (ft.): 2.29		Water Quality Meter: Horizontal 0-5000 mg/L		4"	.653	8"	2,611					
Field Parameters												
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor	
Initial	Stabilization	<0.3'	Purge at 200-500	+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%		
	09:41	3.91	150	0.25	6.17	20.25	4.05	-703	2.33	0.22	3.5	Slight p/10
	09:48	4.25	150	0.50	6.29	21.07	3.02	-744	0.61	0.15	4.5	"
	09:53	4.35	100	0.5	6.36	23.13	2.34	-160	0.53	0.12	4.0	"
	09:58	4.32	100	.5t	6.38	23.3	2.21	-163	0.51	0.11	3.2	"
	10:03	4.30	100	.5t	6.39	23.88	2.13	-165	0.49	0.11	2.7	"
	10:08	4.34	100	1	6.41	24.07	2.09	-167	0.53	0.11	2.2	"
	10:13	4.33	100	1+	6.43	24.28	2.05	-168	0.46	0.10	2.8	"
	10:18	4.38	100	1+	6.43	24.44	2.01	-169	0.44	0.10	2.3	"
10:40	4.79	125	2	6.77	31.16	1.73	-157	0.65	0.09	3.7	"	
Remarks: Pump Intake Depth: 11.29		Control Box Setting (Hz): Development:				Sampling: (Sample at 100-250 ml/min)						
						52.50, 52.3						
Top of pump - 10.89"												
PID 16.9 ppm												
SAMPLING												
Depth to Water Before Sampling: 4.38												
Sample Methodology: Tube												
Sample Name: GC-MW36S		QC Sample: D0722 2010-a (Dye)										
Sample Date/Time: 7/22/10 1022												
Sampler / Signature: W.V.P.												
Filtered Metals Collected: (Y) N Filter Size: 0.45												
Sample Observations: clear, slight p/10 odor												
Parameters: VOCs, SVOCs, Metals, T.I., Metals, Rest, PCBs, CN												

A



Low-Flow Groundwater Sampling: Field Data Sheet

V

Well Number: 3CT		Site: Gowanus Canal Remedial Investigation									
Field Crew: MVP, C2		Date: 7/27/10 Project #: 395863									
Well Depth (ft.): 37.89	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot						
DTW (ft.): 2.87	low & slow	2"	.163	5"	1.020						
Water Column (ft.): 35.02		3"	.367	6"	1.469						
Well Diameter (in.): 2		4"	.653	8"	2.611						
Gal. per ft.: 0.163	Water Quality Meter:										
Well Volume (gal.): 5,71	Horizon - 0.52										
Depth of Screen (ft.): 37.89											
Field Parameters											
Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
09:44	3.00	100	0.25	8.34	19.06	3.70	-15	0.00	0.13	14	slight petroleum odor
09:49		90	0.25	8.57	21.73	4.10	-96	0.00	0.15	12	
09:54	2.97	100	0.58	6.33	22.68	2.66	-157	0.55	0.14	14	
09:59		100	1.5	8.57	22.39	4.05	-106	0.0	0.15	14	
10:04	3.1	100	1.5	8.57	22.64	4.08	-107	0.0	0.15	14	
10:09	3.1	100	2.10	8.54	23.93	4.00	-106	0.0	0.15	15	
13:25	3.25	50	2.7	8.84	26.18	3.94	-135	0.0	0.15	15	
Post-Purge											
Remarks: Pump Intake Depth:	30.39				Control Box Setting (Hz):	49.10 Hz			Sampling: (Sample at 100-250 ml/min)		
	Top of pump 30.09								46.6 -		
$\text{PID} = 2.9 \text{ ppm}$											
SAMPLING											
Depth to Water Before Sampling: 3.1											
Sample Methodology: Tube											
Sample Name: CEC-MU-3CT		QC Sample: N/N/L									
Sample Date/Time: 7/26/10 10:15											
Sampler / Signature: MVP											
Filtered Metals Collected: YDN Filter Size: 0.45											
Sample Observations: clear, slight petroleum odor											
Parameters: VOCs, PCBs, PBT, PCB, metals, Diss metals, CN											

MB

Page #1 of 2

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW - 37S	Site: Gowanus Canal Remedial investigation					
Field Crew:	E.B, CM	Date: 7/26/10 Project #: 395863					
Well Depth (ft.):	23.78	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot	
DTW (ft.):	10.59		2"	.163	5"	1.020	
Water Column (ft.):	13.21	LOW FLOW	3"	.367	6"	1.469	
Well Diameter (in.):	2.1"		4"	.653	8"	2.611	
Gal. per ft.:	0.163	Water Quality Meter:					
Well Volume (gal.):	2.15	U.S.2					
Depth of Screen (ft.):	13.78	Laroste 2020					

Field Parameters											
Time..	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Initial	Stabilization	<0.3'	Purge at 200-500	+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
	1235	9.94	150	-	6.54	31.53	4.84	-30	2.24	0.27	8.97 Clear
	1240	11.34	150	0.1	6.60	29.34	9.95	-83	1.38	0.57	12.7
	1245	11.68	100	0.3	6.54	28.84	10.3	-91	1.03	0.58	12.3
	1250	12.11	150	0.4	6.55	27.84	10.0	-92	0.99	0.56	17.8
	1255	12.45	150	0.5	6.56	27.33	9.36	-88	0.91	0.57	17.5
	1300	12.71	140	0.6	6.56	22.04	8.72	-86	0.91	0.48	19.7
	1305	12.80	100	0.75	6.56	22.31	7.39	-84	0.76	0.44	20.3
	1310	13.04	100	0.9	6.60	27.24	7.25	-86	0.76	0.39	17.3
	1315	13.12	110	1.0	6.61	27.19	6.40	-90	0.76	0.35	17.6
Post-Purge	1320	13.60	100	1.2	6.67	22.11	5.19	-97	0.74	0.28	16.7
	1325	13.09	150	1.25	6.68	22.32	4.87	-97	0.80	0.26	17.8
	1320	14.33	150	~3	6.78	26.37	2.53	-118	0.47	0.13	5.82

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

22.78

77.50 - 121.50

100-150

PID Headspace 0.2 ppm

SAMPLING

Depth to Water Before Sampling: 13.19

Sample Methodology: Tube

Sample Name: GS - MW 37S

QC Sample: None

Sample Date/Time: 7/26/10 13:55

Sampler / Signature: E. Brant

Filtered Metals Collected: Y/N Filter Size: 0.45

Sample Observations: Eppendorf in vial SWL.

Parameters: VOC, SVOC, Metals, Filtered metals, PCB, PEST, CN, Hg, Geo-Chem.

Pg # 2 of 2

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW - 375'	Site: Gowanus Canal Remedial Investigation			
Field Crew:	Date: 7/26/10 Project #: 395863				
Well Depth (ft.):	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
DTW (ft.):		2"	.163	5"	1.020
Water Column (ft.):	See Pg # 1	3"	.367	6"	1.469
Well Diameter (in.):		4"	.653	8"	2.611
Gal. per ft.:	Water Quality Meter:				
Well Volume (gal.):					
Depth of Screen (ft.):					

Field Parameters											
Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Initial	Stabilization	< 0.3"	Purge at 200-500	+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
	1330	13.10	100	1.4	6.71	27.52	4.39	-100	0.68	0.23	18.0 Clear
	1335	13.26	140	1.5	6.73	27.49	4.24	-103	0.72	0.22	14.1
	1340	13.32	130	1.6	6.73	27.65	3.84	-105	0.63	0.20	12.1
	1345	13.44	100	1.8	6.73	27.65	3.78	-107	0.63	0.20	11.2
	1350	13.69	100	2.0	6.73	27.56	3.76	-108	0.65	0.20	9.68
Post-Purge											

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

See Pg # 1

SAMPLING											
Depth to Water Before Sampling:											
Sample Methodology:											
Sample Name:	See Pg # 1										
Sample Date/Time:											
Sampler / Signature:											
Filtered Metals Collected: Y / N	Filter Size:										
Sample Observations:											
Parameters:											



Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	Site: Gowanus Canal Remedial Investigation											
Field Crew:	Date: 7/26/10 Project #: 395863											
Well Depth (ft.): 44.0	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot							
DTW (ft.): 9.54	Low Flow	2"	.163	5"	1.020							
Water Column (ft.): 34.47		3"	.367	6"	1.469							
Well Diameter (in.): 2"		4"	.653	8"	2.611							
Gal. per ft.: 0.163	Water Quality Meter:											
Well Volume (gal.): 5,62	Winkler V-52											
Depth of Screen (ft.): 39.01	Lamotte 2021-e											
Field Parameters												
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor	
Initial Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%		
1230	9.54	225	0	6.10	24.65	1.65	+11	3.20	0.08	94.5	cloudy, no detectable odor	
1235	9.86	225	1/2	6.56	23.22	1.85	+7	3.04	0.09	24.7	" slight brown tinge	
1240	9.88	210	3/4	6.62	22.36	1.91	-21	3.73	0.10	13.1	clear, no detectable	
1245	9.87	200	1	6.69	22.26	1.95	-57	3.06	0.10	10.39	"	
1250	9.90	150	1 1/4	6.72	22.46	1.95	-75	2.54	0.10	13.6	"	
1255	9.90	200	1 1/2	6.75	21.89	1.96	-92	2.13	0.10	7.79	"	
1300	9.90	100	1 3/4	6.75	21.80	1.96	-103	2.11	0.10	7.79	"	
1305	9.91	200	2	6.77	21.75	1.98	-113	1.67	0.10	6.77	"	
1310	9.90	200	2 1/3	6.79	21.90	1.97	-122	1.49	0.10	6.43	"	
1315	9.90	200	2 1/3	6.80	22.38	1.96	-128	1.33	0.10	6.55	"	
1320	9.90	180	3	6.82	22.55	1.94	-134	1.19	0.10	6.37	"	
1325	9.92	200	3 1/2	6.83	22.39	1.96	-139	1.13	0.10	6.98	"	
Post-Purge												
Remarks:	Pump Intake Depth:				Control Box Setting (Hz):				Development:			
	41.51				65-40				220			
Sampling: (Sample at 100-250 ml/min)												
Simple taken @ 1250.												
9.10 Heat/Spore 0.1 ppm												
SAMPLING												
Depth to Water Before Sampling: 9.93 ft												
Sample Methodology: EPA Low Flow												
Sample Name: GC-MW37I OC Sample: Duplicate												
Sample Date/Time: 7/26/10 13:35:00												
Sampler / Signature: C. Mills												
Filtered Metals Collected: G/N Filter Size: 0.45 micron												
Sample Observations: colorless Run in VOL vials. No color or odor to sample H.D.												
Parameters: VOL / SVOL / PCB / PEST / Metals / Filtered Metals / Hg / Cu / GTECH												

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Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW - 37T	Site: Gowanus Canal Remedial Investigation										
Field Crew:	C. Mills / E. Brundt	Date:	7/26/10	Project #: 395863								
Well Depth (ft.):	Purge Methodology:	Diameter	Gal. Per Foot			Diameter	Gal. Per Foot					
DTW (ft.):	see page 1	2"	.163			5"	1.020					
Water Column (ft.):		3"	.367			6"	1.469					
Well Diameter (in.):		4"	.653			8"	2.611					
Gal. per ft.:	Water Quality Meter:											
Well Volume (gal.):												
Depth of Screen (ft.):												
Field Parameters												
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor	
Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%		
1330	9.93	150	3 3/4	6.82	21.37	1.98	-142	1.43	0.10	6.12	clear, no detectable odor	
1335	9.93	220	4	6.85	21.68	1.98	-145	0.99	0.10	5.96	slight brown tinge	
1340	9.93	220	4 1/4	6.85	20.86	1.97	-147	0.95	0.10	6.43	"	
1345	9.93	200	4 1/2	6.85	21.23	1.97	-149	0.87	0.10	6.78	"	
----- SAMPLE TAKEN @ 1350 -----												
Post-Purge	645	9.69	150	5	7.02	21.03	1.90	-124	4.69	0.10	5.60	clear, no detectable odor
Remarks:	Pump Intake Depth:			Control Box Setting (Hz):			Development:		Sampling: (Sample at 100-250 ml/min)			
See page 1												
SAMPLING												
Depth to Water Before Sampling:												
Sample Methodology:												
Sample Name: See page 1												
QC Sample:												
Sample Date/Time:												
Sampler / Signature:												
Filtered Metals Collected: Y / N Filter Size:												
Sample Observations:												
Parameters:												

page 2 of 2



Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 38S				Site: Gowanus Canal Remedial Investigation							
Field Crew: NAB				Date: 7/19/10 Project #: 395863							
Well Depth (ft.): 16.6 DTW (ft.): 6.63 Water Column (ft.): 7.97 Well Diameter (in.): 2 Gal. per ft.: 0.163 Well Volume (gal.): 1,3 Depth of Screen (ft.): 6.61				Purge Methodology: Low Flow		Diameter	Gal. Per Foot	Diameter	Gal. Per Foot		
				2"	.193	5"	1.020				
				3"	.367	6"	1.469				
				4"	.653	8"	2.611				
Field Parameters											
Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Initial Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
1630	12.10	125	<5	6.78	23.56	1.45	-180	4.67	0.07	24.3	
1635	12.49	100	<5	6.67	26.12	1.44	-140	3.75	0.07	27.4	
1640	12.49	50	7.5	6.66	27.32	1.39	-135	3.21	0.07	19.0	
1645		100	1	6.66	28.57	1.42	-134	3.81	0.07	24.0	
1650		275	1+	6.66	28.09	1.42	-133	2.72	0.07	18.3	
1655	11.9	125	1+	6.67	27.38	1.41	-135	2.39	0.07	21.1	
1700		100	1.25	6.68	27.21	1.40	-135	2.18	0.07	19.0	
1705	12.21	75	1.5+	6.67	27.61	1.40	-138	1.97	0.07	21.2	
1710	12.18	75	2	6.67	28.02	1.41	-137	1.86	0.07	20.0	
1715	12.32	75	2+	6.67	28.42	1.41	-134	1.80	0.07	18.2	
Post-Purge	1842	2.74	100	2+	6.73	30.04	2.22	-113	0.01	0.02	16.7
Remarks:	Pump Intake Depth: 15.6'			Control Box Setting (Hz): Development: 80.1-76.0			Sampling: (Sample at 100-250 ml/min) 89.90				
SAMPLING											
Depth to Water Before Sampling: 12.32											
Sample Methodology: tube											
Sample Name: QC QC Sample: none											
Sample Date/Time: 7/19/10 1715											
Sampler / Signature: JRP											
Filtered Metals Collected: CP/N Filter Size: 0.45											
Sample Observations:											
Parameters: Dissolved metals, total metals, organic metals, BTEX, PCPs (n)											

JB

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 38T		Site: Gowanus Canal Remedial Investigation										
Field Crew: MWB TF		Date: 7/19/15 Project #: 395863										
PID NAB	Well Depth (ft.): 42.2	Purge Methodology: Low flow	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot						
	DTW (ft.): 7.94		(2")	.163	5"	1.020						
	Water Column (ft.): 34.3		3"	.367	6"	1.469						
	Well Diameter (in.): 2"		4"	.653	8"	2.611						
	Gal. per ft.: 0.367	Water Quality Meter:										
	Well Volume (gal.): 1206.452											
	Depth of Screen (ft.): 37.2 - 42.2											
Field Parameters												
Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor	
Initial	Stabilization	<0.3'	Purge at 200-500	+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%		
	1730	362	7.94	21	6.63	19.33	0.748	-37	1.02	0.02	52.9	clear, stable
	1735	360	6.85	21	8.66	19.07	0.764	-60	0.46	0.02	19.1	"
	1740	8.83	300	21	8.85	18.80	0.775	-75	0.66	0.02	17.1	"
	1745	6.78	260	~1	8.87	19.41	0.761	-79	0.38	0.02	20.8	"
	1750	6.65	260	1.5	8.91	20.05	0.756	-83	0.02	0.02	13.9	"
	1755	8.58	250	2	8.76	20.49	0.753	-76	0.00	0.02	10.9	"
	1760	8.43	160	2.3	6.80	20.8	0.755	-78	0.00	0.02	8.44	"
	1765	8.28	100	2.3	8.89	21.36	0.752	-85	0.00	0.02	15.2	"
	1770	8.25	100	2.	8.92	22.0	0.755	-88	0.00	0.02	13.9	"
1775	8.32	140	2.4	8.62	22.6	0.757	-85	0.00	0.02	17.2	"	
1780	8.20	120	2.6	8.68	23.20	0.756	-76	0.00	0.02	15.0	"	
1785	6.20	120	2.8	8.72	23.52	0.744	-74	0.00	0.02	16.1	"	
Post-Purge	Remarks: Pump Intake Depth:	Control Box Setting (Hz):	Development:	Sampling: (Sample at 100-250 ml/min)								
	39.7											
SAMPLING												
Depth to Water Before Sampling: 61.20												
Sample Methodology: Low flow												
Sample Name: Tom Fowler MWB 38T QC Sample												
Sample Date/Time: 7/20/15 1730												
Sampler / Signature: Tom Fowler / Tom Fowler												
Filtered Metals Collected: / N Filter Size:												
Sample Observations:												
Parameters: NO2 SVOC PCB REST+metals +CN INMETALS												

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	395		Site: Gowanus Canal Remedial Investigation									
Field Crew:	MVR/SQ		Date: 7/26/15 Project #: 395863									
Well Depth (ft.):	4000 20.96		Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot					
DTW (ft.):	13.44		LFSR	2"	.163	5"	1.020					
Water Column (ft.):	7.52			3"	.367	6"	1.469					
Well Diameter (in.):	2"			4"	.653	8"	2.611					
Gal. per ft.:	.163		Water Quality Meter:									
Well Volume (gal.):	1.2		Hanba 052 19 moff									
Depth of Screen (ft.):	10.96		2020									
Field Parameters												
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor	
Initial	Stabilization	< 0.3'	Purge at 200-500	+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%		
	1300	1305	100	5.5	7.22	24.35	.946	-144	1.76	.05	42.6	
	1305	14.38	50	5.5	7.29	25.26	.858	-145	1.24	.04	29.9	
	1310	14.44	50	5.5	7.31	26.76	.864	-142	1.24	0.04	38.2	
	1315	14.44	50	5.5	7.33	27.43	.859	-139	1.21	0.04	50.8	
	1320	14.69	50	5.5	7.31	27.47	.862	-136	1.18	.04	52.9	
	1325	14.69	50	5.5	7.33	27.58	.854	-136	1.08	.04	55.3	
	1330	14.67	50	5.5	7.33	28.51	.856	-133	.97	0.04	54.9	
	1335	14.61	50	5.5	7.32	29.01	.860	-129	.95	0.04	56.7	
Post-Purge												
Remarks:	Pump Intake Depth:	10.96		Control Box Setting (Hz):	Development:		Sampling: (Sample at 100-250 ml/min)					
							82.6 - 99.70					
							well gear dropping tank sampling					
SAMPLING												
Depth to Water Before Sampling:	14.61											
Sample Methodology:	Tubing											
Sample Name:	GCL-MW395		QC Sample: None									
Sample Date/Time:	7/26/15 1335											
Sampler / Signature:												
Filtered Metals Collected:	Zn N Filter Size: 0.45											
Sample Observations:												
Parameters:	VOCs, SVOCs, metals, oil metals, CN-,pest/PCBs, Gross tech											

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: <i>SIC</i>		Site: Gowanus Canal Remedial Investigation									
Field Crew: SO / MVD		Date: <i>7/26/10</i> Project #: 395863									
Well Depth (ft.): <i>65.20</i>	Purge Methodology: <i>Low Flow</i>	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot						
DTW (ft.): <i>14.44</i>		<i>2"</i>	<i>.163</i>	<i>5"</i>	<i>1.020</i>						
Water Column (ft.): <i>26.06</i>		<i>3"</i>	<i>.367</i>	<i>6"</i>	<i>1.469</i>						
Well Diameter (in.): <i>2"</i>		<i>4"</i>	<i>.653</i>	<i>8"</i>	<i>2.611</i>						
Gal. per ft.: <i>0.163</i>	Water Quality Meter: <i>horiba VS2</i>										
Well Volume (gal.): <i>4.25</i>	Calibrated: <i>2020</i>										
Depth of Screen (ft.): <i>35.20</i>											
Field Parameters											
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Initial Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
<i>1310</i>	<i>14.22</i>	<i>150</i>	<i>0.25</i>	<i>6.30</i>	<i>24.91</i>	<i>20.1</i>	<i>-121</i>	<i>1.6</i>	<i>1.19</i>	<i>400</i>	<i>slight sulfide, pH 6.1, 5/10 NTU</i>
<i>1315</i>	<i>16.91</i>	<i>125</i>	<i>0.40</i>	<i>6.31</i>	<i>25.97</i>	<i>19.5</i>	<i>-125</i>	<i>1.32</i>	<i>1.15</i>	<i>45</i>	<i>↓ same ↓</i>
<i>1320</i>	<i>16.96</i>	<i>100</i>	<i>0.50</i>	<i>6.31</i>	<i>26.32</i>	<i>19.6</i>	<i>-123</i>	<i>1.09</i>	<i>1.17</i>	<i>50</i>	<i>↓ same ↓</i>
<i>1325</i>	<i>17.08</i>	<i>100</i>	<i>0.65</i>	<i>6.32</i>	<i>28.68</i>	<i>19.5</i>	<i>-126</i>	<i>.96</i>	<i>1.16</i>	<i>75</i>	<i>↓ same ↓</i>
<i>1330</i>	<i>17.11</i>	<i>100</i>	<i>0.75</i>	<i>6.32</i>	<i>30.01</i>	<i>19.5</i>	<i>-125</i>	<i>1.09</i>	<i>1.16</i>	<i>60</i>	<i>↓ same ↓</i>
<i>1335</i>	<i>17.18</i>	<i>100</i>	<i>0.85</i>	<i>6.32</i>	<i>30.93</i>	<i>19.6</i>	<i>-126</i>	<i>1.11</i>	<i>1.16</i>	<i>55</i>	<i>↓ same ↓</i>
<i>1340</i>	<i>17.38</i>	<i>100</i>	<i>0.90</i>	<i>6.32</i>	<i>31.51</i>	<i>19.6</i>	<i>-128</i>	<i>1.16</i>	<i>1.16</i>	<i>55</i>	<i>↓ same ↓</i>
<i>1345</i>	<i>17.51</i>	<i>100</i>	<i>1.0</i>	<i>6.32</i>	<i>31.49</i>	<i>19.6</i>	<i>-128</i>	<i>1.05</i>	<i>1.15</i>	<i>60</i>	<i>↓ same ↓</i>
Post-Purge	<i>1620</i>	<i>Dry</i>	high flow to full Anabs								
Remarks:	Pump Intake Depth: <i>37.7</i>		Control Box Setting (Hz): <i>Development: 97.50</i>			Sampling: (Sample at 100-250 ml/min) <i>100</i>					
SAMPLING											
Depth to Water Before Sampling: <i>17.35</i>											
Sample Methodology: <i>low flow</i>											
Sample Name: <i>GC-mw - 393</i> QC Sample: <i>N/A</i>											
Sample Date/Time: <i>7/26/10 1350</i>											
Sampler / Signature: <i>SO, Brian French</i>											
Filtered Metals Collected: <i>(Y) N Filter Size: 45 μm</i>											
Sample Observations: <i>black sludge, geo-depth foot</i>											
Parameters: <i>geo-depth foot</i>											

B3

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	425		Site: Gowanus Canal Remedial Investigation								
Field Crew:	MB		Date:	7/16 Project #: 395863							
Well Depth (ft.):	13.6	Purge Methodology:	Diameter	Gal. Per Foot			Diameter	Gal. Per Foot			
DTW (ft.):	6.59	Low flow	2"	.163			5"	1.020			
Water Column (ft.):	7.01	tubing	3"	.367			6"	1.469			
Well Diameter (in.):	2		4"	.653			8"	2.611			
Gal. per ft.:	116.3	Water Quality Meter:									
Well Volume (gal.):	114.1	hvi 163									
Depth of Screen (ft.):	8.1										
Field Parameters											
Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	Dark grey like odor
Initial	10:15	5.35	300 ml/min	2	7.22	22.79	32.4	-264	.40	2.04	Dark grey petro like odor
	10:20	5.22	300 ml/min	1.0	7.39	23.86	34.3	-223	.80	1.99	Dark grey petro like odor
	10:25	5.28	300 ml/min	1.3	7.62	23.82	31.7	-265	.51	1.95	sheen, with dark grey
	10:30	5.06	150 ml/min	2.1	7.11	24.12	33.1	-276	.33	2.06	Blackish
	10:35	4.94	300 ml/min	3.5	7.06	23.99	33.8	-281	.41	2.14	Dark grey
	10:40	4.85	350 ml/min	4.0	7.04	23.9	34.6	-283	.49	2.10	Clear, some cloudiness
	10:45	4.81	180 ml/min	4.5	7.03	24.69	34.8	-289	0.50	2.19	Cloudy, grey
	10:50	4.77	160 ml/min	5.0	7.03	24.83	35.0	-291	.49	2.21	Cloudy, grey
	10:55	4.72	300 ml/min	5.4	7.09	24.63	34.9	-253	3.90	2.19	Cloudy, grey
	11:00	4.09									
Post-Purge											

Remarks: Pump Intake Depth: 5.512.6' Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

10.55 Sample time

PID Initial 132.0

SAMPLING											
Depth to Water Before Sampling:	6.59										
Sample Methodology:	Low flow tubing with tubing.										
Sample Name:	(2C - 425) QC Sample: MB										
Sample Date/Time:	10:55 7/16/10										
Sampler / Signature:	[Signature]										
Filtered Metals Collected:	<input checked="" type="checkbox"/>	N	Filter Size:	40 mm							
Sample Observations:											
Parameters:	VOC, SVOC, pest, PCB, metals, dissolved metals, CO ₂ , Hg										

DD

Clean 1A 12:00

Offsite 12:16

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	42 I	Site: Gowanus Canal Remedial Investigation					
Field Crew:	MG TF	Date:	7/16	Project #: 395863			
Well Depth (ft.):	37.4 ft	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot	
DTW (ft.):	3.89 ft	Low flow	2"	.163	5"	1.020	
Water Column (ft.):	33.51	by 2"	3"	.367	6"	1.469	
Well Diameter (in.):	2	Cowlors	4"	.653	8"	2.611	
Gal. per ft.:	.163	Water Quality Meter:					
Well Volume (gal.):	32.4	Hvibr					
Depth of Screen (ft.):							

Field Parameters											
Time	DTW (ft)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
10:55	3.87	150/ml	1	6.87	18.47	3.68	-167	2.2	.19	13	light grey
11:00	3.90	200/ml	.8	6.87	18.48	3.57	-170	1.78	.19	50	light grey
11:05	3.81	200/ml	1.5	6.86	18.43	3.65	-168	1.83	.19	13	Brownish, grey
11:10	3.79	250/ml	2.3	6.89	18.32	2.55	-170	1.67	.18	11	light grey
11:15	3.92	200/ml	3.0	6.90	18.22	3.35	-171	1.28	.17	4.7	slightly cloudy
11:20	3.94	200/ml	3.5	6.89	18.05	3.27	-170	1.20	.17	3.5	slightly cloudy
11:25	3.83	150/ml	4.5	6.88	18.07	3.25	-165	1.12	.17	1.8	partly cloudy
11:30	3.85	200/ml	5.0	6.87	18.04	3.11	-165	1.10	.16	1.4	clear faint petro odor
11:35	3.87	200/ml	6.5	6.90	18.00	3.19	-167	1.04	.17	2.9	clear
+2:00			8.5		18.45			1.	.20		
Post-Purge	3.55	250/ml	8.5	6.89	18.15	3.10	-171	1.20	.20	2.8	Clear

Remarks: Pump Intake Depth: 35.0' Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

Field Blank 11:45

PID initia: 397

SAMPLING										
Depth to Water Before Sampling:	3.87									
Sample Methodology:	Low flow pumping with bubbling									
Sample Name:	GC 42 I			QC Sample:	field	Blank	at 11:45			
Sample Date/Time:	11:35									
Sampler / Signature:	<u> </u>	<u> </u>								
Filtered Metals Collected:	(Y) N	Filter Size:	40 mm							
Sample Observations:	VOCs, SVOCs,pests, PCBs,metals,dissolved metals,CN,Hg									
Parameters:										

(DR)

Page # 1 of 2

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	43S	Site: Gowanus Canal Remedial Investigation				
Field Crew:	ES, CM	Date: 7/22/10 Project #: 395863				
Well Depth (ft.):	12.42	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	
DTW (ft.):	3.23	600 ml/min flow	2"	.163	5"	1.020
Water Column (ft.):	9.34 - 9.39		3"	.367	6"	1.469
Well Diameter (in.):	2.00		4"	.653	8"	2.611
Gal. per ft.:	0.163	Water Quality Meter:				
Well Volume (gal.):	146.9	1.53				
Depth of Screen (ft.):	3.62	6.52				
		6.00 ft. 7070				

Field Parameters											
Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	O.D. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	0835	2.91	170	6.51	24.10	5.52	-113	1.27	0.30	941	petrol like odor - off gaseous
	0846	3.74	175	0.4	6.53	22.46	5.31	-141	0.64	0.28	99.5
	0945	4.07	110	0.6	6.56	23.15	4.75	-142	0.77	0.25	75.6
	0950	4.41	90	0.75	6.57	23.56	3.75	-139	0.70	0.19	53.5
	0955	4.72	100	0.8	6.63	23.98	2.98	-138	0.81	0.15	31.3
	1000	4.92	125	0.9	6.65	24.28	2.41	-136	0.64	0.12	29.8
	1005	5.31	150	1.2	6.72	24.39	2.03	-136	0.58	0.10	29.0
	1010	5.58	125	1.3	6.80	24.76	1.82	-132	0.53	0.09	22.6
	1015	6.01	150	1.5	6.91	25.13	1.64	-137	0.45	0.08	13.9
	1020	6.18	110	1.6	6.94	25.51	1.69	-139	0.43	0.08	11.5
	1025	6.42	110	1.7	6.97	25.81	1.62	-146	0.37	0.08	9.75
											↓
Post-Purge											

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

11.62 52.10 Hz

100 ml/min

Well dry after Purge and most of sample collection. Post purge chems N/A.

pH = 6.0

SAMPLING										
Depth to Water Before Sampling:	6.96'									
Sample Methodology:	Tube									
Sample Name:	SC-MW 43S									
Sample Date/Time:	7/22/10 1040									
Sampler / Signature:	E. Brondt CR									
Filtered Metals Collected:	(Y) N Filter Size: 0.45									
Sample Observations:	Continuous drawdown during Purge + Sample Collection @ 100 ml/min									
Parameters:	VOC, SVOC, Metals, Filtered metals, PCB, PEST, CN, Hg									



Page #2 of 2

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW-435	Site: Gowanus Canal Remedial Investigation			
Field Crew:	EB, CM	Date: 7/22/10 Project #: 395863			
Well Depth (ft.):	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
DTW (ft.):		2"	.163	5"	1.020
Water Column (ft.):	See Page 1	3"	.367	6"	1.469
Well Diameter (in.):		4"	.653	8"	2.611
Gal. per ft.:	Water Quality Meter:				
Well Volume (gal.):					
Depth of Screen (ft.):					

Field Parameters											
Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1030	7.76	100	1.8	6.98	26.20	1.67	-149	0.36	0.08	8.04 clear, Petro-like odor.
	1035	6.94	100	1.9	7.02	26.27	1.68	-151	0.38	0.08	7.33 ↓
Post-Purge											

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

SAMPLING											
Depth to Water Before Sampling:											
Sample Methodology:											
Sample Name:	QC Sample:										
Sample Date/Time:	July 22										
Sampler / Signature:	DAB										
Filtered Metals Collected: Y / N Filter Size:											
Sample Observations:											
Parameters:											

DB

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW 43 intermediate	Site: Gowanus Canal Remedial Investigation					
Field Crew:	C. Mills / C. Zurlo	Date:	7/22/10	Project #: 395663			
Well Depth (ft.):	37.2 ft	Purge Methodology:	Low Flow	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
DTW (ft.):	3.0 ft			2"	.163	5"	1.020
Water Column (ft.):	34.2 ft			3"	.367	6"	1.469
Well Diameter (in.):	2.54			4"	.653	8"	2.611
Gal. per ft.:	0.163 gal/ft	Water Quality Meter:	Hanna U-5000				
Well Volume (gal.):	5,681	Depth of Screen (ft.):	32.21 ft	Lithology:	20-26 ft		

Field Parameters											
Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
0930	3.01	150	0	6.75	23.47	4.41	-15	0.04	0.24	14.0	petrol like odor, clear
0935	3.56	140	1/2	7.21	21.34	4.84	-123	0.09	0.26	19.1	clear
0940	3.54	140	1/2	7.34	19.81	4.89	-157	0.54	0.26	14.8	"
0945	3.58	150	1/2	7.40	19.26	4.75	-167	0.54	0.25	9.85	"
0950	3.60	150	3/4	7.44	19.17	4.85	-174	0.49	0.24	7.69	"
0955	3.60	150	1	7.48	19.24	4.45	-177	0.53	0.24	8.05	"
1000	3.60	150	1 1/4	7.51	19.37	4.40	-178	0.43	0.23	5.52	"
1005	3.60	150	1 1/2	7.51	19.43	4.22	-178	0.42	0.23	5.22	"
1010	3.61	150	1 3/4	7.53	19.25	4.15	-179	0.41	0.22	4.34	"
1015	3.62	150	1 3/4	7.54	19.33	4.13	-180	0.41	0.22	4.24	"
1020	3.63	150	2	7.55	19.40	4.01	-181	0.40	0.21	3.61	"
1020	3.71	125	3	7.73	21.91	3.39	-151	1.20	0.17	5.62	"

Remarks: Pump Intake Depth: 24.71 ft Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)
52.50 175 ml/min

PID READING: 1.0 ppm

SAMPLING											
Depth to Water Before Sampling:	3.63										
Sample Methodology:	EPA Low flow										
Sample Name:	GC-MW43T QC Sample: MS/MSD										
Sample Date/Time:	7/22/10 @ 1020										
Sampler / Signature:	C. Mills										
Filtered Metals Collected:	(N) Filter Size: 0.45 micron										
Sample Observations:	clear, no odor										
Parameters:	VOC / SVOC / PCB / PEST / METALS / FILTERED METALS / Mercury / Cyanide										

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW-44S		Site: Gowanus Canal Remedial Investigation									
Field Crew:	EB, mB		Date: 7/20/10 Project #: 395863									
Well Depth (ft.):	12.98		Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot					
DTW (ft.):	3.28		LOW FLOW	2"	.163	5"	1.020					
Water Column (ft.):	9.7			3"	.367	6"	1.469					
Well Diameter (in.):	2"			4"	.653	8"	2.611					
Gal. per ft.:	0.163		Water Quality Meter:									
Well Volume (gal.):	158		u-52									
Depth of Screen (ft.):	2.98											
Field Parameters												
Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor	
Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%		
16:20	3.43	325/ml	3	7.08	24.58	11.7	-306	.70	.66	45	Clear	
16:25	3.49	325/ml	7	6.95	24.57	11.0	-210	.46	.66	33	Clear	
16:30	3.57	325/ml	1.3	6.91	24.98	10.9	-191	.42	.62	29	Clear	
16:35	3.57	325/ml	1.5	6.86	25.30	10.9	-182	.39	.62	17	Clear	
16:40	3.58	325/ml	1.8	6.85	25.43	10.9	-179	.38	.62	7.2	Clear	
16:45	3.58	325/ml	2.2	6.82	25.54	10.9	-177	.36	.61	3.0	Clear	
16:50	3.58	325/ml	2.5	6.80	25.48	10.7	-175	.34	.61	1.7	Clear	
16:55												
17:00												
17:05												
17:10												
17:33	3.37	225/ml	4	6.78	27.61	10.4	-148	5.15	.59	1.8	Clear	
Remarks:	Pump Intake Depth:		Control Box Setting (Hz): Development:				Sampling: (Sample at 100-250 ml/min)					
	11.98		50.30				Sampling at 225 ml/min					
	Sample time : 16:55											
PID - 44 ppm.												
SAMPLING												
Depth to Water Before Sampling:	3.57											
Sample Methodology:	Tubip.											
Sample Name:	GC MW 44S											
OC Sample:	✓											
Sample Date/Time:	7/20 16:55											
Sampler / Signature:	Michael Beiscoe Michael Beiscoe											
Filtered Metals Collected:	(Y) N Filter Size:											
Sample Observations:	-											
Parameters:	VOCs	SVOCS	Metals	Filterd Metals	PCBs	Pesticides						
	Cyanide		Mercury									

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-44 T		Site: Gowanus Canal Remedial Investigation									
Field Crew: ABalagd		Date: 7/8/10 Project #: 395863									
Well Depth (ft.): 44.31 DTW (ft.): 2.46 Water Column (ft.): 11.85 Well Diameter (in.): 2 Gal. per ft.: 163 Well Volume (gal.): 6,82 Depth of Screen (ft.):		<u>Purge</u> <u>Methodology:</u> Low flow - groundfos teflon lined tubing		Diameter	Gal. Per Foot	Diameter	Gal. Per Foot				
		2"	.163	5"		1.020					
		3"	.367	6"		1.469					
		4"	.653	8"		2.611					
<u>Water Quality Meter:</u>											
Hanna U-52 v1 LaMotte 2020E											
Field Parameters											
Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Turbidity (NTU)	Color/Odor	
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%		
Initial	1044	2.53	425	—	6.63	20.64	9.41	-11	1.70	9.38 clear/none	
1 VOL.	1049	2.53	425	.8	6.88	20.53	1.70	-120	.53	4.23 clear/none	
2 VOL.	102	2.53	275	1.5	6.31	22.99	0.001	51	7.65	2.77 clear/none	
3 VOL.	109	2.53	275	2.0	6.89	22.67	1.66	-101	1.03	4.25 clear/none	
4 VOL.	114	2.55	300	2.3	6.86	20.50	1.69	-112	.78	3.37 clear/none	
5 VOL.	1119	2.55	300	2.7	6.88	20.04	1.69	-114	.42	3.37 clear/none	
6 VOL.	1124	2.58	300	3.0	6.88	19.67	1.69	-117	.36	3.14 clear/none	
7 VOL.	1129	2.60	300	3.4	6.90	19.96	1.68	-120	.33	7.07 clear/none	
8 VOL.	1134	2.60	300	3.7	6.89	20.23	1.68	-122	.32	2.80 clear/none	
9 VOL.	1139	2.61	300	4.1	6.90	20.42	1.67	-123	.32	0.58 clear/none	
10 VOL.	1144	2.58	300	4.5	6.90	20.33	1.67	-123	.31	2.51 clear/nbzo-	
Post-Purge	1150	collect Sample									
Remarks: Pump Intake Depth:	Control Box Setting (Hz): Development: start - 57.20 at 1102 - 30.30 1114 - 31.00								Sampling: (Sample at 100-250 ml/min) 49.5 Hz ~225 ml/min		
SAMPLING											
Depth to Water Before Sampling: 2.56											
Sample Methodology: Low flow w/ groundfos											
Sample Name: MW-44 T CC Sample: D-07082010-01 /ms/msn											
Sample Date/Time: 7/8/10 / 1150											
Sampler / Signature: James Balagd / JBalagd											
Filtered Metals Collected: <input checked="" type="checkbox"/> N Filter Size: 0.44 μm or 15 μm											
Sample Observations: clear/none —> greenish tint +											
Parameters: VOC-trace / Sims / SVOC / PCB / rest / metals / filter metals											

Post purge T DTW Flow pH T Cond ORP DO Turb Observations
 1337 2.52 225 6.93 21.83 1.71 -113 1.09 5.04 (greenish tint)
 (greenish tint)
 no odor

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW1456	Site: Gowanus Canal Remedial Investigation						
Field Crew:	Jim Fowler / Carol Turbbs	Date:	7/19/10	Project #: 395863				
Well Depth (ft.):	13.6	Purge Methodology:	low flow	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot	
DTW (ft.):	3.61	10w flow	2"	.163		5"	1.020	
Water Column (ft.):	10.6	w/ 2"	3"	.367		6"	1.469	
Well Diameter (in.):	2"	Ground Loss Purge		.653		8"	2.611	
Gal. per ft.:	0.163	Water Quality Meter:						
Well Volume (gal.):	1,783	Horizon						
Depth of Screen (ft.):	9.1473	5.8						

Field Parameters											
Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	7:45	—	7.27	7.77	1.04	-166	12.38	0.05	280		
	14415	—	7.47	7.20	1.01	-166	17.1	0.05	140	yellow brown	
	14410	3,1932	—	7.42	7.25	1.09	-162	15.3	0.05	60	
	14415	418300	—	7.36	7.28	1.11	-173	12.1	0.05	30	
	15180	—	7.39	7.79	1.10	-177	14.6	0.05	9.5		
	14555	4115	—	7.41	7.80	1.09	-163	10.4	0.05	17	
	15190	—	7.44	7.99	1.09	-188	0.93	0.05	10		
	15105	—	7.75	7.81	1.16	-197	11.0	0.05	12		
	15110	4116300	—	7.45	28.02	1.11	-203	0.84	0.05	7.5	
	15115	—	7.45	28.21	1.12	-2070.2	0.36	5.6			
	15200	—	7.45	28.23	1.13	-221	0.69	0.06	5.0		
	525	—	7.45	26.32	1.14	-225	0.50	0.06	6.1		

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

1' off bottom
1530 300 7.44 28.37 1.15 -2280.50 0.06 5.8
1535 Took sample 75
1004.22 7.41 31.50 1221.72 0.41 0.06

SAMPLING

Depth to Water Before Sampling: 3.01

Sample Methodology: low flow

Sample Name: MW1456 QC Sample: none

Sample Date/Time: 7/19/10 1535

Sampler / Signature: Jim Fowler

Filtered Metals Collected: (Y) N Filter Size:

Sample Observations:

Parameters: VOC, SVOC, Pesticides, PCB, metals, dissolved metals CN, Hg

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 452		Site: Gowanus Canal Remedial Investigation										
Field Crew: MB MP		Date: 7/19 Project #: 395863										
Well Depth (ft.): 41.18	Purge Methodology: Low Flow	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot							
DTW (ft.): 1.6		2"	.163	5"	1.020							
Water Column (ft.): 39.58		3"	.267	6"	1.469							
Well Diameter (in.): 2		4"	.653	8"	2.611							
Gal. per ft.: 0.163	Water Quality Meter: Hach 6-5000											
Well Volume (gal.): 6.5												
Depth of Screen (ft.): 36.18												
Field Parameters												
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor	
Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%		
Initial	4:40	1.65	$\frac{250}{\text{min}}$.1	7.39	29.58	1.03	-120	.34	.05	22.8	clear, slight grey
	4:45	1.63	$\frac{200}{\text{min}}$.2	7.34	27.40	1.12	-139	1.02	.06	9.01	clear, slightly grey
	4:50	1.65	$\frac{250}{\text{min}}$.3	7.35	24.34	1.13	-155	.85	.06	3.51	clear
	4:55	1.66	$\frac{250}{\text{min}}$.5	7.34	23.67	1.09	-161	.75	.05	5.86	clear
	5:00	1.66	$\frac{300}{\text{min}}$	1.0	7.33	23.66	1.05	-164	.78	.05	3.92	clear
	5:05	1.69	$\frac{250}{\text{min}}$	1.5	7.33	23.47	1.07	-166	.67	.05	3.47	clear
	5:10	1.72	$\frac{200}{\text{min}}$	2.0	7.34	23.28	1.04	-168	.63	.05	4.51	clear
	5:15	1.68	$\frac{250}{\text{min}}$	2.5	7.34	23.46	1.03	-169	.57	.05	3.7	clear
	5:20	1.63	$\frac{250}{\text{min}}$	3.0	7.34	23.26	1.02	-171	.52	.05	7.72	clear
	5:25	1.66	$\frac{200}{\text{min}}$	3.5	7.33	24.04	1.03	-172	.46	.05	6.18	clear
	5:30	1.67	$\frac{150}{\text{min}}$	4.0	7.34	24.71	1.05	-172	.49	.05	6.86	clear, slight pinkish odor
	5:35	1.68	$\frac{100}{\text{min}}$	4.5	7.35	29.36	1.08	-173	.37	.05	6.93	clear, pinkish, pinkish
Post-Purge	Remarks: Pump Intake Depth:	38.38	Control Box Setting (Hz):	Development:			Sampling: (Sample at 100-250 ml/min)					
SAMPLING												
Depth to Water Before Sampling:												
Sample Methodology:												
Sample Name: See page 2 QC Sample:												
Sample Date/Time:												
Sampler / Signature:												
Filtered Metals Collected: Y / N Filter Size:												
Sample Observations:												
Parameters:												

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DR

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	451		Site: Gowanus Canal Remedial Investigation									
Field Crew:	MB MP		Date:	8/19 Project #: 395863								
Well Depth (ft.):	41.18	Purge Methodology:	Diameter:	Gal. Per Foot	Diameter	Gal. Per Foot						
DTW (ft.):	1.6	Low Flow	2"	.163	5"	1.020						
Water Column (ft.):	39.55		3"	.367	6"	1.469						
Well Diameter (in.):	2"		4"	.653	8"	2.611						
Gal. per ft.:	0.163	Water Quality Meter:										
Well Volume (gal.):	36.18	hcr.6g										
Depth of Screen (ft.):	36.18											
Field Parameters												
Time	DTW (ft.)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor	
Initial Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%		
5:40	1.65	175 ml/min	5.0	7.39	25.25	107	-173	.37	.05	6.96	Clear	
5:45	1.62	175 ml/min	5.3	7.39	25.19	108	-173	.36	.05	7.13	clear, first para	
Post-Purge	6:15	1.58	100 ml/min	6	7.32	26.80	1.16	-155	.90	.06	12.3	bluish
Remarks:	Pump Intake Depth:			Control Box Setting (Hz):			Development:			Sampling: (Sample at 100-250 ml/min)		
	38.38											
SAMPLING												
Depth to Water Before Sampling:	1.62											
Sample Methodology:	Tether - low flow w/ 2" Gravimetric pump + teflon tubing											
Sample Name:	GC MU4ST											
QC Sample:	none											
Sample Date/Time:	7.19.10 1745											
Sampler / Signature:	MVP											
Filtered Metals Collected:	0.45 cm											
Sample Observations:												
Parameters:	VOCs, SVOCs, Metals, Diss. Metals, PCBs, CN											

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(DR)

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-46D		Site: Gowanus Canal Remedial Investigation									
Field Crew: MP, can, CB		Date: 7/19/10 Project #: 395863									
Well Depth (ft.): 67.38'	Purge Methodology: Low Flow	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot						
DTW (ft.): 2.94		2"	.163	5"	1.020						
Water Column (ft.): 54.44		3"	.367	6"	1.469						
Well Diameter (in.): 2 in		4"	.653	8"	2.611						
Gal. per ft.: 4.63	Water Quality Meter: u-S2										
Well Volume (gal.): 8.87											
Depth of Screen (ft.): 52.38											
Field Parameters											
Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1800	1.98	150	0	8.91	30.36	0.334	-135	0.02	5.98	Clear
	1805	1.98	150	0.2	8.20	27.84	0.516	-175	0.03	24.0	
	1810	1.93	150	0.5	7.15	25.97	1.06	-163	0.05	25.6	
1815	1820	—	150	0.7	7.01	25.60	1.18	-161	0.06	22.7	
	1820	—	150	1.0	6.97	25.35	1.21	-159	0.06	19.0	
	1825	1.96	150	1.2	6.95	24.78	1.22	-157	0.06	17.6	
	1830	—	150	1.8	6.94	24.24	1.23	-157	0.06	17.7	↓
Post-Purge	1930	2.07	150	2.0	6.82	24.69	1.30	-152	0.07	7.34	
Remarks:	Pump Intake Depth: 54.98		Control Box Setting (Hz):	Development: 44.50		Sampling: (Sample at 100-250 ml/min)					
PID:	3.0 ppm										
SAMPLING											
Depth to Water Before Sampling: 202.85											
Sample Methodology: Tube											
Sample Name: MW GC-MW46D QC Sample: none											
Sample Date/Time: 7/19/10 1835											
Sampler / Signature: Ed Blandt ERB →											
Filtered Metals Collected: Cu N Filter Size: 0.45											
Sample Observations:											
Parameters: Vol, SVOC, metals, filtered metals, PCB, PEST, CNL, rig											



PAGE 1

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW - 473	Site: Gowanus Canal Remedial Investigation					
Field Crew: Carol Zutlo Tom Fowler	Date: 7-19-10 Project #: 395863					
Well Depth (ft.): 27.2	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot	
DTW (ft.): 6.62	low flow pump	(2")	.163	5"	1.020	
Water Column (ft.): 20.58		3"	.367	6"	1.469	
Well Diameter (in.): 2 ^{1/2}		4"	.653	8"	2.611	
Gal. per ft.: 0.163	Water Quality Meter:					
Well Volume (gal.): 3,35	Hosiba					
Depth of Screen (ft.):						

Field Parameters											
Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Initial	Stabilization	< 0.3'	Purge at 200-500	1	+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	
	13:50		400	6.67	21.20	11.5		11.39	75	1100	6.62 d/w black globs
	13:57		200	6.67	23.62	11.9	-101	4.09	0.67	260	Sloping black globs
	14:05			6.66	26.65	11.0	-100	2.77	0.62	240	
	14:13			6.67	27.51	10.7	-100	2.46	0.61	160	seddish Sloping globs
	14:18			6.66	27.70	10.5	-101	2.11	0.59	50	
	14:23			6.66	27.63	10.5	-103	1.99	0.59	32	
	14:28		260	6.68	26.64	10.0	-102	1.83	0.56	37	400
	14:35			6.66	29.02	10.4	-106	1.39	0.59	23	
	14:40			6.67	28.89	10.8	-107	1.45	0.61	31	
Post-Purge	14:45			6.68	29.26	10.7	-108	1.37	0.60	35	
	14:50			6.69	29.76	10.9	-108	1.21	0.62	130	
	14:55			6.70	29.84	10.9	-111	1.06	0.62	110	7.36 d/w

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: 71.10 Sampling: (Sample at 100-250 ml/min)

SEE PAGE 2	SAMPLING
Depth to Water Before Sampling:	
Sample Methodology:	
Sample Name:	QC Sample,
Sample Date/Time:	
Sampler / Signature:	
Filtered Metals Collected: Y / N	Filter Size:
Sample Observations:	
Parameters:	

BB

PAGE 2

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-47-S		Site: Gowanus Canal Remedial Investigation									
Field Crew: C. Zwick T. Fowler		Date: 7/19/10 Project #: 395863									
Well Depth (ft.): DTW (ft.): Water Column (ft.): Well Diameter (in.): Gal. per ft.: Well Volume (gal.): Depth of Screen (ft.):	Purge Methodology: <i>See page 1</i>	Diameter	Gal. Per Foot			Diameter	Gal. Per Foot				
		2"	.163			5"	1.020				
		3"	.367			6"	1.469				
		4"	.653			8"	2.611				
<u>Water Quality Meter:</u>											
Field Parameters											
Time	DTW (ftc)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
15:00			6.70	29.86	11.0	-112	0.98	0.62	95		
15:05			6.71	30.12	11.1	-117	0.87	0.63	50		
15:10			6.71	30.15	11.1	-119	0.82	0.63	50		
15:17			6.71	30.74	11.1	-122	0.73	0.64	40		
15:22			6.71	30.75	11.1	-124	0.62	0.63	45		<i>samples collected 15:30</i>
16:42			6.89	35.45	8.80	-88	0.25	0.49	80		
Post-Purge											
Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)											
approx 2" from bottom of well											
SAMPLING											
Depth to Water Before Sampling: 17.1											
Sample Methodology: low flow pump											
Sample Name: C. Zwick T. Fowler QC Sample:											
Sample Date/Time: 7-19-10 15:30											
Sampler / Signature:											
Filtered Metals Collected: <input checked="" type="checkbox"/> N Filter Size:											
Sample Observations: appears to be floating black sludge oil or other product											
Parameters:											

DR

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW 47T		Site: Gowanus Canal Remedial Investigation									
Field Crew:	Sam Zurlo / Tom Fowler		Date:	7/19/10 Project #: 395863								
Well Depth (ft.):	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot							
DTW (ft.):	low flow w/ 2" Gravel for pump	2"	.163	5"	1.020							
Water Column (ft.):		3"	.367	6"	1.469							
Well Diameter (in.):	2"	4"	.653	8"	2.611							
Gal. per ft.:	0.163	Water Quality Meter:										
Well Volume (gal.):	Horizon U-52											
Depth of Screen (ft.):												
Field Parameters												
Time	DTW (ftc)	Flow Rate (mL/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor	
Stabilization	<0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3%	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%		
Initial			6.40	16.63	1.42	-78	3.07	0.07	192			
9:42		500	6.74	16.95	1.40	-143	3.07	0.07	25			
9:45			6.78	17.37	1.39	-149	1.90	0.07	21	238 d fw		
9:50		300	6.83	18.20	1.37	-153	1.69	0.07				
9:55			6.86	17.83	1.36	-153	1.59	0.07	9.7			
10:00			6.90	18.15	1.34	-156	1.40	0.07	13			
10:05			6.88	17.91	1.33	-153	1.28	0.07	16			
10:10			6.91	18.00	1.32	-156	1.52	0.07	25			
10:15			6.92	18.03	1.32	-157	1.20	0.07	26			
10:20			6.92	17.99	1.30	-156	1.08	0.06	21			
10:25			6.93	18.01	1.30	-158	1.02	0.06	23			
10:30			6.93	18.07	1.29	-159	0.94	0.06	9.2			
Post-Purge												
Remarks:	Pump Intake Depth:		Control Box Setting (Hz):		Development:		Sampling: (Sample at 100-250 mL/min)					
10:35	6.94		18.04	1.28	-159	0.89	0.06	11				
10:40	6.94		18.30	1.27	-159	0.83	0.06	19				
10:45	6.94		18.27	1.26	-158	0.97	0.06	1.0				
10:50	6.91		18.30	1.24	-158	0.81	0.06	2.8				
10:55	6.92		18.26	1.23	-159	0.74	0.06	2.2				
11:00	6.92		18.38	1.26	-159	0.69	0.06	1.5				
Depth to Water Before Sampling:	6.86											
Sample Methodology:	low flow w/ 2" Gravel for pump and Teflon lined tubing											
Sample Name:	MW - 47T										QC Sample: none	
Sample Date/Time:	7-19-10											
Sampler / Signature:	CZ											
Filtered Metals Collected:	Y / N										Filter Size: 145 μm	
Sample Observations:												
Parameters:	DOC, SVOC, PCB metals, Pesticides, Metal metals, CN											
11:05	6.86	18.24	1.27	-156	0.66	0.06	1.9					
SP-866 COLLECTION												
11:37	6.97	18.54	1.43	-142	1.84	0.07	0.0					

Appendix D

Field Documentation

D-06 – Groundwater Sampling Field Forms

**National Grid Groundwater Sampling Field
Forms**

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MONITORING WELL SAMPLING RECORD

PID Reading

Job Number 093010-3-1307

Job Name

GawenosLocation Chaves

By

A. Malsberry

Date

7/21/16Well Number GC-MW305

Measurement Datum

Pre-Development Information

Water Level 7.09

Time (start)

0936One Purge Vol 1.5 gal

Total Depth of Well

16.54'1.5

Three Well Volume

4.5 gal1.5

Water Characteristics

Color _____

Clear

Cloudy

Odor None

Weak

Moderate

Strong

Any films or immiscible material No

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (µS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS	OTW
1/2	0950	6.96	18.53	1726	376.5	2.89	-182.7		7.90
1 1/2	0955	7.01	18.44	1721	228.5	4.19	-185.8		
2	1002	7.02	18.37	1716	150.7	2.33	-187.9		
2 1/2	1006	7.04	18.34	1710	112.3	1.97	-190.0		7.82
3	1010	7.05	18.27	1706	100.4	1.77	-190.4		
3 1/2	1015	7.05	18.27	1699	87.0	1.53	-192.3		
4	1020	7.05	18.27	1698	82.3	1.40	-191.0		8.02
4 1/2	1025	7.05	18.31	1692	98.3	1.34	-192.0		
5	1030	7.06	18.27	1681	86.4	1.30	-192.0		
5 1/2	1035	7.05	18.25	1672	100.7	1.26	-192.5		

Total Volume Removed (gal)

12

pH

Temperature (°C)

see last reading

Specific Conductance (µS/cm)

DO Concentration (mg/L)

see last reading

ORP (mV)

TDS

Post Development Information

Time (Finished)

Water Level

8.09'

Total Depth of Well

16.54'

Approximate Volume Removed (gal)

12 gal

Water Characteristics

Color

clear - yellowish

Clear

Cloudy

Odor

NoneXWeak NLO

Moderate

Strong

Any films or immiscible material

no

Comments

Client	Project	Page
Subject	By	Date
	Checked	Date
	Approved	Date

AG-MW30S cont

Time	Vol	temp	cond	DO	pH	CRP	Turb
1040	6	18.19	1666	1.28	7.06	-192.4	68
1050	7	18.24	1665	1.20	7.04	-192.1	80.57.2
1055	7 1/2	18.33	1665	1.20	7.04	-191.6	78.9
1100	8	18.31	1664	1.18	7.03	-191.6	74.0
1105	8 1/2	18.29	1673	1.15	7.01	-190.0	54.0
1110	9	18.42	1676	1.15	7.00	-188.5	45.1
1115	9 1/2	18.38	1677	1.14	6.99	-187.6	55.6
1120	10	18.28	1673	1.18	6.98	-187.6	56.3
1125	10.5	18.24	1670	1.15	7.00	-187.1	52.9

pumped ~ 9 vds and Alkalized will collect sample
 (waited for ~~CH2M Hill~~ to split sample)



MONITORING WELL SAMPLING RECORD

PID Reading _____
Job Number 093010
Location Guanus - Chaves
Well Number GC-MW301

Job Name Guanus
By A. Malsbury Date 7/19/10
Measurement Datum _____

Pre-Development Information
Water Level 6.86'
One Purge Vol 18.7 gal

Time (start) 1044
Total Depth of Well 35.5'
Three Well Volume 56.1 gal

Water Characteristics

Color Clear Clear _____ Cloudy _____
Odor None Weak NH3 Moderate _____ Strong _____

Any films or immiscible material No

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (μS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS
1/2	1050	6.14	17.73	1580	106.9	2.46	-148.1	
2	1100	6.26	17.92	1629	78.3	1.35	-143.7	
2 1/2	1105	6.17	17.70	1610	117.1	0.98	-149.7	
3	1110	6.17	17.64	1580	234.2	0.81	-150.6	
4	1115	6.19	17.58	1564	378.7	0.64	-150.1	
5 1/4	1125	6.20	17.57	1513	10.3	0.68	-149.8	
6 1/2	1130	6.21	17.46	1500	458.2	0.67	-149.3	
7	1135	6.21	17.67	1402	63.3	0.71	-149.9	
7 1/2	1140	6.21	17.66	1452	283.0	0.66	-149.9	
8 1/2	1145	6.20	17.67	1455	19.6	0.64	-149.3	

DTW

6.75'

6.60'

6.70

6.60

6.55

Total Volume Removed (gal) 20

pH _____

Temperature (°C) (See last reading)

Specific Conductance (μS/cm) _____

DO Concentration (mg/L) _____

ORP (mV) _____

TDS _____

Post Development Information

Time (Finished) 1315

Water Level _____

Total Depth of Well 35.5'

Approximate Volume Removed (gal) _____

Water Characteristics

Color clear Clear _____ Cloudy _____
Odor None Weak NH3 Moderate _____ Strong _____

Any films or immiscible material No

Comments

Client	Project						Page	
	By			Checked			Date	
	Subject						Date	
AC-MW30I Cont'						Approved	Date	
Time	Vd	Temp	Concl	DO	pH	ORP	Turb	DTW
1150	9	17.66	1474	0.74	6.20	-148.9	40.0	6.45
1200	10	17.67	1444	0.58	6.19	-148.0	154.8	
1205	11	17.68	1463	0.61	6.18	-147.9	1366.1	6.40
1210	12	17.67	1460	0.75	6.16	-147.3	450	
1215	12 1/4	17.61	1468	0.75	6.15	-146.8	537.1	
1220	13	17.62	1553	0.75	6.15	-146.7	107	6.38
1225	13 1/2	17.60	1543	0.93	6.15	-146.3	226.8	
1232	14 1/2	17.44	1549	1.10	6.14	-145.8	990	
1235	15	17.37	1571	1.15	6.13	-144.3	19.8	
1240	15 1/2	17.57	1538	0.94	6.13	-143.9	322	
1247	16	17.72	1511	0.75	6.14	-145.7	106.7	
1250	16 1/2	17.71	1501	0.67	6.14	-146.9	73.5	
1255	17	17.81	1461	0.52	6.14	-148.8	133	
1300	17 1/2	17.76	1447	0.54	6.15	-151.4	207.5	
1305	18	17.76	1469	0.39	6.15	-150.7	80.4	
1310	19	17.71	1470	0.39	6.14	-150.0	117	
1315	19 1/4	17.81	1450	0.39	6.14	-150.6	430	

I volume purged and parameters stable → will collect sample



MONITORING WELL SAMPLING RECORD

PID Reading _____
Job Number 093010-3-1302
Location Muraii
Well Number GL-MW311

Job Name Gavanus
By A. Malsbary Date 7/22/10
Measurement Datum _____

Pre-Development Information

Water Level 4.63
One Purge Vol 4.9 gal

Time (start) 06050
Total Depth of Well 34.69
Three Well Volume 14.7 gal

Water Characteristics

Color clear / yellowish Clear Cloudy
Odor None Weak Moderate Strong

Any films or immiscible material No

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (µS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS	DTW
2 1/4	0700	6.48	18.66	1124	650	1.82	-194.0		4.75
1/4	0705	6.61	18.69	1109	457.9	1.26	-199.7		
2 1/2	0710	6.71	18.39	1099	326.1	1.02	-207.9		
1/2	0715	6.77	18.12	1093	234.3	0.85	-214.3		
3/4	0720	6.83	15.94	1076	94.3	0.58	-223.3		4.89
1	0725	6.89	15.82	1082	87.3	0.54	-225.7		
1 1/2	0730	6.90	15.73	1084	58.8	0.53	-224.9		
2	0735	6.92	15.72	1092	56.0	0.52	-224.2		
2 1/2	0740	6.91	15.81	1093	45.7	0.52	-222.7		
3 1/4	0745	6.90	15.78	1090	67.7	0.51	-221.3		

Total Volume Removed (gal) 9 gal pH _____

Temperature (°C) see last reading Specific Conductance (µS/cm) _____

DO Concentration (mg/L) _____ ORP (mV) _____

TDS _____

Post Development Information Time (Finished) 0930

Water Level 4.65' Total Depth of Well 34.69

Approximate Volume Removed (gal) _____

Water Characteristics

Color clear Clear Cloudy
Odor None X Weak NO Moderate Strong

Any films or immiscible material no

Comments

	Project	Page
Client	By	Date
Subject	Checked	Date
	Approved	Date

GL-MW31I cont

Time	Vol	Temp	cond.	DO	pH	ORP	turb	DTW
0750	4 1/4	15.80	1100	0.52	6.89	-219.6	29.3	4.89
0755	5	15.71	1106	0.53	6.87	-217.7	22.6	
0800	8 1/4	15.74	1114	0.53	6.86	-217.8	28.7	
0805	5 3/4	15.68	1117	0.54	6.82	-216.5	28.3	4.90
0810	6 1/4	15.75	1114	0.54	6.81	-215.9	28.5	4.90
0815	6 3/4	15.77	1117	0.54	6.80	-215.0	28.7	

pumped 7 l well vol. and parameters stabilized. Will collect sample.



MONITORING WELL SAMPLING RECORD

PID Reading 0.0 Job Name Gawanus
Job Number 093610 By A. Malshany Date 7/20/10
Location T.G. Park Measurement Datum _____
Well Number GC-MW32S / FW-NW-16

Pre-Development Information Time (start) 1612
Water Level 12.44 Total Depth of Well 19.20
One Purge Vol 4.41 Three Well Volume 13.23

Water Characteristics
Color clear Clear _____ Cloudy _____
Odor X None _____ Weak _____ Moderate _____ Strong _____

Any films or immiscible material _____

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (µS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS	DTB W
1/4	1620	5.25	21.32	713	121.2	4.58	-133.7		12.48
3/4	1625	5.16	20.53	731	23.7	3.09	-139.2		
1	1630	5.15	20.36	728	11.8	2.70	-141.2		
1 1/4	1635	5.15	19.87	727	1.1	1.96	-143.0		
1 1/2	1640	5.15	19.68	728	-3.5	1.61	-143.3		12.46
2	1645	5.14	19.34	724	-6.6	1.30	-143.0		
2 1/4	1650	5.14	19.30	719	-9.1	1.08	-144.4		12.50
2 1/2	1655	5.15	19.28	715	-9.6	0.94	-143.9		
3	1700	5.15	19.25	715	-10.4	0.86	-144.4		
3 1/4	1705	5.12	19.01	708	-10.1	0.75	-141.7		12.48

Total Volume Removed (gal) _____ pH _____

Temperature (°C) _____ Specific Conductance (µS/cm) _____

DO Concentration (mg/L) _____ ORP (mV) _____

TDS _____

Post Development Information Time (Finished) _____

Water Level _____ Total Depth of Well _____

Approximate Volume Removed (gal) _____

Water Characteristics
Color _____ Clear _____ Cloudy _____
Odor _____ None _____ Weak _____ Moderate _____ Strong _____

Any films or immiscible material _____

Comments _____

	Project	Page
Client	By	Date
Subject	Checked	Date
	Approved	Date

GC-MW32 S cont

volume	time	temp	cond	DO	pH	ORP	turb	dw
3 1/2	1710	18.90	706	0.70	5.13	-141.8	-10.6	12.48
4	1715	18.84	702	0.62	5.14	-143.0	-9.2	
4 1/2	1720	18.85	699	0.58	5.14	-142.3	-3.5	12.49
5	1725	18.91	700	0.53	5.14	-143.1	-6.4	
5 1/4	1730	18.82	698	0.50	5.14	-143.2	-9.0	
5 1/2	1735	18.57	692	0.47	5.14	-142.1	-8.7	
5 3/4	1740	18.48	693	0.46	5.13	-140.3	-9.8	
6	1745	18.59	690	0.45	5.14	-139.7	-10.3	

~1 1/2 vol collected and parameters stable will collect sample



MONITORING WELL SAMPLING RECORD

PID Reading _____ Job Name Gawanus
 Job Number 093010-3-1302 By A. Malsbury Date 7/20/16
 Location Thomas Greene Park Measurement Datum _____
 Well Number GC-MW32I

Pre-Development Information Time (start) 11:35
 Water Level 15.15' Total Depth of Well 44.50
 One Purge Vol 3.6 gal Three Well Volume 10.8

Water Characteristics
 Color clear Clear _____ Cloudy _____
 Odor x None Weak NLO Moderate _____ Strong _____
 Any films or immiscible material No

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (µS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS	DTW
1	1145	5.70	18.18	1406	48.4	0.92	-195.5		18.28
1½	1150	5.71	18.71	1404	36.6	0.66	-195.5		17.97
2	1200	5.81	18.88	1407	17.9	0.55	-199.6		
2½	1205	5.81	18.82	1398	9.5	0.60	-197.6		
3	1210	5.81	18.74	1395	92.2	0.56	-196.7		
3½	1215	5.81	18.65	1386	82.7	0.56	-192.8		17.29
3¾	1220	5.81	18.64	1374	77.4	0.54	-192.2		
4	1225	5.81	18.66	1366	64.2	0.51	-192.5		
4	1230	5.80	18.31	1353	70.0	0.48	-191.5		
4⅓	1237	5.80	18.19	1336	30.3	0.42	-192.5		17.3

Total Volume Removed (gal) 7 gal pH _____
 Temperature (°C) see last reading Specific Conductance (µS/cm) _____
 DO Concentration (mg/L) _____ ORP (mV) _____

Post Development Information Time (Finished) 1300
 Water Level 8.14 Total Depth of Well 44.5'
 Approximate Volume Removed (gal) 6 gal

Water Characteristics
 Color clear Clear _____ Cloudy _____
 Odor x None Weak NLO Moderate _____ Strong _____
 Any films or immiscible material No

Comments

Client

Project

Page

Subject

By

Date

Checked

Date

Approved

Date

GC-MW32I cont

Time	Vol(gal)	Temp	cond	DO	pH	ORP	Turb	DTW
1240	4 1/2	18.14	1332	0.38	5.81	-191.2	50.3	
1245	5	18.15	1317	0.35	5.81	-191.6	33.9	18.05
1250	5 1/4	18.04	1311	0.34	5.80	-190.9	20.1	18.10
1255	5 1/2	18.09	1300	0.34	5.81	-189.4	33.2	18.14
1300	6	18.02	1294	0.33	5.81	-189.3	29.7	

collected ~1/2 well vol and parameters stable → will collect sample



MONITORING WELL SAMPLING RECORD

PID Reading 0.0
 Job Number 093010-3-B02
 Location Gowanus(Red Hook)
 Well Number GC-MW-415

Job Name Gowanus
 By C.Benetti Date 7/20/10
 Measurement Datum Top Stainless (2" Diameter)

Pre-Development Information

Water Level 2.94'
 One Purge Vol 1.6 gallons

Time (start) 10:30

Total Depth of Well 12.9'

Three Well Volume 4.9 gallons

Water Characteristics

Color	<input type="checkbox"/>	Clear	<input checked="" type="checkbox"/>	Cloudy
Odor	<input type="checkbox"/> None	<input type="checkbox"/> Weak	<input checked="" type="checkbox"/> Moderate PLO	<input type="checkbox"/> Strong

Any films or immiscible material

Depth to Water	Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance ($\mu\text{S}/\text{cm}$)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS
2.94	0	10:30	5.57	23.07	3.955	12.8	1.90	-343.4	
	~1	10:35	5.49	23.07	3.717	19.6	1.46	-334.5	
	~1.5	10:40	5.33	22.60	3.867	41.5	1.09	-334.7	
	~2.5	10:45	5.37	23.00	4.035	NA	0.83	-337.0	
	~2.5	10:50	5.30	22.88	4.077	22.1	0.82	-341.3	
	~3	10:55	5.20	22.72	4.103	16.4	0.78	-346.0	
	~3.5	11:00	5.19	22.72	4.110	15.1	0.90	-347.7	
	~3.5	11:05	5.19	22.42	4.088	10.2	0.76	-346.0	
	~4	11:10	5.20	22.42	4.092	NA	0.81	-340.2	
	~5	11:15	5.29	22.38	4.088	9.3	0.81	-330.4	

Total Volume Removed (gal) ~6 Sample pH 5.47

Temperature (°C) 22.28 Specific Conductance ($\mu\text{S}/\text{cm}$) 4.067

DO Concentration (mg/L) 1.09 ORP (mV) -298.8

TDS

Post Development Information Time (Finished)

Water Level _____ Total Depth of Well _____

Approximate Volume Removed (gal) _____

Water Characteristics

Color	<input type="checkbox"/>	Clear	<input checked="" type="checkbox"/>	Cloudy
Odor	<input type="checkbox"/> None	<input type="checkbox"/> Weak	<input checked="" type="checkbox"/> Moderate	<input type="checkbox"/> Strong

Any films or immiscible material _____

Comments Iron kit reading = 3.8. Sample Collected: GC-MW-415 (8-13)

DTW

gallons Purged	Time	Temp °C	pH	Sp Conductance (mS/cm)	Turbidity (NTU)	DO (mg/L)	ORP (mV)
~5.5	11:20	22.34	5.33	4.080	8.2	0.94	-3213
~6.9'	~5.5	11:25	22.30	5.36	4.066	8.0	0.95 -317.6
~5.75	11:30	22.24	5.41	4.064	5.9	1.01	-307.8
~6	11:35	22.28	5.47	4.067	5.6	1.09	-298.8



MONITORING WELL SAMPLING RECORD

PID Reading 0.0
Job Number 093010-3-B02
Location Gowanus (Mazzei)
Well Number GC-MW-30S GC-MW31S

Job Name Gowanus
By C. Benetti Date 7/21/10
Measurement Datum Top PVC Riser (2" Diameter)

Pre-Development Information
Water Level 6.75
One Purge Vol 1.3 gallons

Time (start) 10:05
Total Depth of Well 14.6'
Three Well Volume 3.8 gallons

Water Characteristics

Color _____ Clear Cloudy
Odor None Weak Moderate Strong

Any films or immiscible material

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (mS/μS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS
0	10:05	4.37	22.90	17.38	24.6	1.8	375.8	
~ 1/2	10:10	3.58	20.05	17.01	13.7	0.83	408.5	
~ 1	10:15	3.39	20.00	17.39	8.7	0.69	427.1	
~ 1	10:20	3.21	19.74	17.51	5.1	0.62	438.9	
~ 1.5	10:25	3.03	19.31	17.50	3.5	0.42	452.5	
~ 2	10:30	2.99	19.34	17.71	2.3	0.55	464.6	
~ 2	10:35	2.98	19.36	17.91	1.1	0.59	470.9	
~ 2.5	10:40	3.00	19.39	17.12	0.7	0.47	475.8	
~ 3	10:45	2.99	19.34	17.95	0.0	0.53	479.6	
~ 3	10:50	3.02	19.37	17.97	0.0	0.52	481.3	
~ 3	10:55	3.06	19.42	18.05	0.7	0.49	484.0	

Total Volume Removed (gal) 4.3 + Sample pH 3.06

Temperature (°C) 19.42 Specific Conductance (μS/cm) 18.05

DO Concentration (mg/L) 0.49 ORP (mV) 484.0

TDS _____

Post Development Information Time (Finished) _____

Water Level _____ Total Depth of Well _____

Approximate Volume Removed (gal) _____

Water Characteristics

Color _____ Clear Cloudy
Odor None Weak Moderate Strong

Any films or immiscible material _____

Comments Iron Reading . Sample Collected: GC-MW-30S (6.75-14.6)



MONITORING WELL SAMPLING RECORD

PID Reading 0.0
 Job Number 093010-3102
 Location Gowanus (Red Hook)
 Well Number GC-MW-41I

Job Name Gowanus
 By _____ Date 7/19/10
 Measurement Datum Top Stainless (2" Diameter)

Pre-Development Information

Water Level 6.7'
 One Purge Vol 8.4 gallons

Time (start) 14:15
 Total Depth of Well 58.05
 Three Well Volume 25.1

Water Characteristics

Color	<input checked="" type="checkbox"/>	Clear	<input type="checkbox"/>	Cloudy				
Odor	<input type="checkbox"/>	None	<input type="checkbox"/>	Weak	<input type="checkbox"/>	Moderate	<input type="checkbox"/>	Strong

Any films or immiscible material _____

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance ($\mu\text{S}/\text{cm}$)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS
~ 0	14:15	5.53	21.38	6.154	81.3	1.23	217.0	
~ 1/3	14:20	5.32	20.89	5.923	45.1	0.79	199.1	
~ 2/3	14:25	5.19	20.31	5.703	13.4	0.63	114.9	
~ 1	14:30	5.16	20.46	5.655	139.2	0.61	137.2	
~ 1 1/3	14:35	4.99	20.40	5.638	18.8	0.60	104.2	
~ 1 2/3	14:40	4.87	20.35	5.536	70.9	0.58	111.4	
~ 2	14:45	4.91	20.82	5.609	14.8	0.57	313.2	
~ 2 1/3	14:50	4.88	21.02	5.519	13.7	0.58	242.5	
~ 2 2/3	14:55	4.60	20.36	5.349	23.6	0.55	285.9	
~ 2 2/3	15:00	4.51	20.02	5.275	11.6	0.54	307.4	

Total Volume Removed (gal)	<u>10.5 + Sample</u>	pH	<u>2.81</u>
Temperature (°C)	<u>19.44</u>	Specific Conductance ($\mu\text{S}/\text{cm}$)	<u>4,698</u>
DO Concentration (mg/L)	<u>0.44 0.45</u>	ORP (mV)	<u>562.3</u>
		TDS	

Post Development Information Time (Finished) _____

Water Level _____ Total Depth of Well _____

Approximate Volume Removed (gal) _____

Water Characteristics

Color	<input type="checkbox"/>	Clear	<input type="checkbox"/>	Cloudy				
Odor	<input type="checkbox"/>	None	<input type="checkbox"/>	Weak	<input type="checkbox"/>	Moderate	<input type="checkbox"/>	Strong

Any films or immiscible material _____

Comments Iron Reading = 0.9. Sample Collected: GC-MW-41I (53-58)

6/15		pH	Temp °C	Specific Conductance (mS/cm)	Turbidity (NTU)	DO (mg/L)	ORP (mV)
~3	15:05	4.37	20.18	5.239	10.2	0.51	344.3
~3	15:10	4.28	19.91	5.179	17.9	0.51	347.8
~3	15:15	4.16	19.81	5.085	6.1	0.50	340.9
~4	15:20	4.10	19.84	5.087	5.1	0.50	361.1
~4	15:25	4.10	20.07	5.156	4.8	0.49	362.2
~4.25	15:30	3.94	19.66	5.025	3.5	0.49	365.8
~4.25	15:35	3.79	19.66	5.025	2.4	0.49	397.3
~4.5	15:40	3.63	19.63	5.025	2.9	0.49	410.3
~4.75	15:45	3.56	19.60	4.876	2.0	0.49	423.6
~5	15:50	3.49	19.72	4.835	2.5	0.49	428.3
~5.5	15:55	3.44	19.76	4.834	1.4	0.48	431.7
~6	16:00	3.30	19.62	4.740	2.4	0.49	448.2
~6	16:05	3.25	19.81	4.740	1.5	0.49	460.2
~6.5	16:10	3.11	19.64	4.740	0.8	0.49	464.0
~6.5	16:15	3.14	19.95	4.838	2.0	0.49	471.6
~6.5	16:20	3.03	19.68	4.738	0.2	0.49	485.5
~6.5	16:25	3.00	19.81	4.739	0.3	0.48	494.6
~7	16:30	2.96	19.71	4.669	0.0	0.48	496.9
~7.5	16:35	2.84	19.72	4.651	0.7	0.47	505.1
~7.5	16:40	2.86	20.00	4.675	0.3	0.47	504.9
~8	16:45	2.84	20.00	4.670	1.0	0.47	507.6
~8	16:50	2.73	20.03	5.055	6.6	0.46	520.7
~8	16:55	2.66	19.88	4.773	3.3	0.45	525.4
~8	17:00	2.65	19.80	4.959	2.8	0.45	526.4
~8.5	17:05	2.65	19.99	4.688	0.0	0.48	526.9
~9	17:10	2.53	19.73	4.628	0.0	0.46	541.0
~9	17:15	2.44	19.65	4.489	1.9	0.47	549.1
~9	17:20	2.53	19.79	4.508	4.3	0.48	550.1
~9.5	17:25	2.48	19.53	4.508	0.5	0.48	550.9
~10	17:30	2.61	19.64	4.632	0.9	0.45	552.5
~10	17:35	2.69	19.49	4.682	0.2	0.46	557.2
~10.5	17:40	2.81	19.44	4.698	0.0	0.45	562.3



MONITORING WELL SAMPLING RECORD

(1)

PID Reading 15.2
 Job Number D93D10
 Location GOWANUS CANAL
 Well Number GC-MW401

Job Name GOWANUS CANAL
 By DREW BLICHARZ Date 7/19/10
 Measurement Datum _____

Pre-Development Information
 Water Level 5.92' Time (start) 12:10
 One Purge Vol 11 gallons Total Depth of Well 67.57'
 Water Characteristics Three Well Volume 33 gallons
 Color NA Pump Set $\approx 64.5' \text{ BG}$ $(67.57)(0.1631) = 11 \text{ gallons}$
 Odor None Weak to Moderate Cloudy
 Any films or immiscible material ND Strong

COMPRESSOR

REFILL : 12

DISCHARGE : 6

PSI : 35

≈ 2.5 gallons
pumped while
setting up these
settings

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (μS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS
1210	7.26	18.94	8766	7.749	18.8	17.6	-77.0	
1215	7.29	18.86	9000	7.933	-1.5	127	-178.3	
RE-CALIBRATED YSI, TURBIDITY, ORP								
≈ 5	1305 → 5 GALLONS PURGED WHILE CALIBRATING / CLEANING							
	1310	7.06	17.55	9375	8.042	-21.7	1.23	-163.1
RE-CALIBRATED YSI, TURBIDITY								
≈ 7	1350	6.79	17.83	9292	8.026	-21.1	2.04	-160.6
+1/3 gal	1355	6.81	17.06	9262	7.854	-20.9	1.40	-165.2
	1400	6.86	16.93	9191	7.777	-19.7	1.16	-167.3
	1405	6.89	16.87	9127	7.706	-18.5	1.07	-167.0

DTW = 5.92

YSI

CAL ATTEMPTS

H₂O IS CLEAR

Total Volume Removed (gal) _____ pH _____

Temperature (°C) _____ Specific Conductance (μS/cm) _____

DO Concentration (mg/L) _____ ORP (mV) _____

TDS _____

Post Development Information Time (Finished) _____

Water Level _____ Total Depth of Well _____

TURBIDITY

PRE POST

Approximate Volume Removed (gal) _____

13.45

4.5 → 0.0

124.3 → 126.0

Water Characteristics

Color _____ Clear _____ Cloudy _____

Odor _____ None _____ Weak _____ Moderate _____ Strong _____

Any films or immiscible material _____

Comments CONSISTENT BEEP AT 6.88' ~~BEEBEE STEADY BEEP~~
 AT 10:10 DTW



MONITORING WELL SAMPLING RECORD

②

PID Reading _____
Job Number 093010
Location GOWANUS CANAL
Well Number GC-MW401

Job Name GOWANUS CANAL
By DREW BLICHLARZ Date 7/19/10
Measurement Datum _____

Pre-Development Information

Water Level _____
One Purge Vol _____

Time (start) _____
Total Depth of Well _____
Three Well Volume _____

Water Characteristics

Color NA Clear Cloudy
Odor None Weak Moderate Strong

Any films or immiscible material NO

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (µS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS
+ 1 gal	1410	6.90	16.87	9070 7.658	-21.2	0.96	-170.0	
	1415	6.90	16.79	8977 7.561	-18.8	1.20	-176.0	
	1425	6.90	16.84	8970 7.587	-21.2	1.30	-177.1	
	1430	6.89	16.90	8892 7.519	-18.7	1.34	-178.9	
	1435	6.89	16.89	8803 7.439	-20.2	1.54	-178.7	
+ 3 gal	1440	6.89	16.94	8774 7.421	-19.7	1.46	-177.9	
	1445	6.87	17.05	8716 7.386	-21.3	1.30	-174.3	
	1450	6.87	17.06	8664 7.348	-21.2	1.48	-173.2	
+ 4 gal	1455	6.84	16.99	8653 7.333	-21.3	1.61	-172.4	
	1500	6.83	17.09	8647 7.331	-21.3	1.62	-168.9	

Total Volume Removed (gal) _____ pH _____

Temperature (°C) _____ Specific Conductance (µS/cm) _____

DO Concentration (mg/L) _____ ORP (mV) _____

TDS _____

Post Development Information Time (Finished) _____

Water Level _____ Total Depth of Well _____

Approximate Volume Removed (gal) _____

Water Characteristics

Color _____ Clear Cloudy
Odor None Weak Moderate Strong

Any films or immiscible material _____

Comments



MONITORING WELL SAMPLING RECORD

3

PID Reading	
Job Number	093010
Location	<u>GOWANUS CANAL</u>
Well Number	6C - MW 40T

Job Name GOWANUS CANAL
By DREW BLICHAZ Date 7/19/10
Measurement Datum _____

Pre-Development Information

Time (start)

Water Level _____
One Purge Vol _____

Total Depth of Well _____
Three Well Volume _____

Water Characteristics

Color NA Clear Cloudy
Odor None Weak Moderate Strong
Any films or immiscible material No

Total Volume Removed (gal) *N* 13 pH

DO Concentration (mg/L) ORP (mV)

Post Development Information

Time (Finished)

Water Level Total Depth of Well

Approximate Volume Removed (gal)

Water Characteristics

Color			Clear		Cloudy
Odor	None	Weak	Moderate		Strong

Any films or immiscible material

Comments FERROUS IRON TEST = 0.9



MONITORING WELL SAMPLING RECORD

(1)

PID Reading 13.1
 Job Number 093010
 Location GOWANUS CANAL
 Well Number GC-MW23I

Job Name GOWANUS CANAL
 By DREW BLICHLARZ Date 7/20/10
 Measurement Datum _____

Pre-Development Information
 Water Level STEADY 5.35 INTERMITTENT 6.48 - 38.75
 One Purge Vol 6.3 gallons

Time (start) 11:00
 Total Depth of Well 38.75'
 Three Well Volume ~ 19 gallons

$$(38.75)(0.163) = 6.3 \text{ gallons}$$

Water Characteristics

Color	<u>SLIGHTLY GREY</u>	Clear	<u>SLIGHTLY</u> Cloudy
Odor	<u>None</u>	<u>Weak</u>	<input checked="" type="checkbox"/> Moderate <u>Strong</u>

Any films or immiscible material SHEEN IN H₂O

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance ($\mu\text{S}/\text{cm}$)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS
0	1115	6.63	16.79	18036 15.21	-20.0	15.21	-146.7	
	1120	6.60	16.08	19256 15.97	-19.9	13.17	-155.9	
	1125	6.65	16.01	18119 15.01	-19.8	12.40	-161.2	
~ 1 gal.	1130	6.69	15.93	16223 13.46	-15.3	20.13	-163.1	
	1135	6.77	15.84	14877 12.28	1173.0	13.40	-161.6	
	1140	6.77	15.74	14860 12.23	1180.1	13.80	-165.5	
~ 2 gal.	1145	6.77	15.90	14980 12.37	-12.0	14.72	-167.6	
	1150	6.77	15.74	14887 12.24	151.3	17.57	-169.7	
	1155	6.77	15.73	14705 12.11	-20.5	16.72	-168.3	
~ 3 gal.	1200	6.78	15.74	14413 11.87	-19.8	18.21	-166.5	

$\mu\text{S}/\text{cm}$ $\mu\text{S}/\text{cm}$

Total Volume Removed (gal) _____ pH _____

Temperature (°C) _____ Specific Conductance ($\mu\text{S}/\text{cm}$) _____

DO Concentration (mg/L) _____ ORP (mV) _____

TDS _____

Post Development Information Time (Finished) _____

Water Level _____ Total Depth of Well _____

Approximate Volume Removed (gal) _____

Water Characteristics

Color	Clear	Cloudy		
Odor	<u>None</u>	<u>Weak</u>	<u>Moderate</u>	<u>Strong</u>

Any films or immiscible material _____

Comments



MONITORING WELL SAMPLING RECORD

(2)

PID Reading _____
Job Number 093010
Location GOWANUS CANAL
Well Number GL-MW 23I

Job Name GOWANUS CANAL
By DAWN BLICHAZ Date 7/20/10
Measurement Datum _____

Pre-Development Information

Water Level _____
One Purge Vol _____

Time (start) _____
Total Depth of Well _____
Three Well Volume _____

Water Characteristics

Color _____
Odor None Weak

Clear
 Moderate
 Strong

Any films or immiscible material _____

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (µS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS
	1205	6.78	15.58	14462	11.83	113.9	20.19	-170.5
	1210	6.80	15.45	14145	11.58	26.6	23.67	-168.6
~4 gal	1215	6.81	15.38	13940	11.39	-20.0	16.05	-170.3
	1225	6.82	15.39	13941	11.38	10.4	22.83	-170.1
	1230	6.82	15.28	14065	11.45	25.2	24.52	-167.6
~5 gal	1235	6.82	15.21	13902	11.31	-20.1	27.73	-164.6
	1240	6.82	15.17	13919	11.31	-20.1	27.70	-166.5
	1245	6.82	15.11	13642	11.64	266.4	19.88	-164.3
	1250	X						
	1255	X						

DW DS %
4.51' 224.5
259.8
273.0
291.4
292.7

WATER IS MOSTLY CLEAR

Total Volume Removed (gal) _____ pH _____

Temperature (°C) _____ Specific Conductance (µS/cm) _____

DO Concentration (mg/L) _____ ORP (mV) _____

TDS _____

Post Development Information Time (Finished) _____

Water Level _____ Total Depth of Well _____

Approximate Volume Removed (gal) _____

Water Characteristics

Color _____ Clear _____ Cloudy _____
Odor None Weak _____ Moderate _____ Strong _____

Any films or immiscible material _____

Comments



MONITORING WELL SAMPLING RECORD

(3)

PID Reading

Job Number

Location

Well Number

Job Name

GOWANUS CANAL

By DREW BLICHLARZ Date 7/20/10

Measurement Datum

Pre-Development Information

Water Level

Time (start)

One Purge Vol

Total Depth of Well

Three Well Volume

Water Characteristics

Color

Clear

Cloudy

Odor

None

Weak

Moderate

Strong

Any films or immiscible material

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (μS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS	D.O %
	14:30	7.05	16.59	14138	11.87	-0.1	9.14	-159.4	98.3
~ 12 gal.	14:35	6.87	15.83	14092	11.62	58.8	8.81	-155.1	93.2
	14:40	6.78	15.50	14034	11.48	96.5	8.35	-157.3	87.4
	14:45	6.76	15.27	14004	11.39	191.1	7.27	-152.7	76.3
	14:50	6.76	15.13	13923	11.30	351.3	6.71	-156.5	70.3
	14:55	6.77	15.16	13934	11.31	39.9	6.82	-157.2	71.3
	15:00	6.79	15.22	13941	11.34	34.5	6.79	-153.8	70.6
~ 14 gal	15:05	6.80	15.32	13844	11.29	38.8	6.76	-153.6	71.0
	15:10								

Total Volume Removed (gal)

→ ~ 14

pH

Temperature (°C)

Specific Conductance (μS/cm)

DO Concentration (mg/L)

ORP (mV)

Post Development Information

Time (Finished)

17:30

DNW
4.31

Water Level

Total Depth of Well

Approximate Volume Removed (gal)

Water Characteristics

Color

Clear

Cloudy

Odor

None

Weak

Moderate

Strong

Any films or immiscible material

Comments

FERRONS IRON = 1.1



MONITORING WELL SAMPLING RECORD

(1)

PID Reading 0,0
 Job Number 093010
 Location BOWANNS CANAL
 Well Number GC-MW23S

Job Name BOWANNS CANAL
 By DREW BLICHAZ Date 7/21/10
 Measurement Datum _____

Pre-Development Information

Water Level 4.74'
 One Purge Vol 2.15 gallons

Time (start) 8:20
 Total Depth of Well 13.2'
 Three Well Volume ~ 6.5 gallons

$$(13.2)(0.1631) = 2.15 \text{ gallons}$$

Water Characteristics

Color	<u>GRAYISH BT YSI READINGS</u>			Clear	<input checked="" type="checkbox"/> Cloudy
Odor	None	Weak	<input checked="" type="checkbox"/>	Moderate	<input type="checkbox"/> Strong
Any films or immiscible material	<u>SPECKS OF SHEEN NOTICED 8:25</u>				

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (μS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS	D.O. %	DTW
0	8:20	6.57	16.59	2138	1.794	540.8	7.30	-191.0	75.2	4.70'
	8:25	6.62	16.48	2110	1.767	444.0	7.20	-192.0	74.2	
	8:30	6.68	16.42	2093	1.744	361.5	7.29	-192.2	74.4	
~1	8:35	6.70	16.39	2087	1.744	323.1	7.44	-192.3	76.5	
	8:40	6.72	16.45	2080	1.740	237.8	7.32	-193.4	75.3	
			CLEARED	FLOW	THROUGH CELL TO REMEDY TURB?					
~2	8:50	6.76	16.77	2072	1.746	174.6	8.05	-202.0	83.5	4.75'
	8:55	6.78	16.70	2070	1.741	153.0	7.95	-201.0	82.2	
	9:05	6.81	16.78	2056	1.733	134.2	7.84	-200.6	81.4	
~3	9:10	6.81	16.72	2052	1.727	148.1	7.89	-199.6	81.7	

Total Volume Removed (gal) _____ pH _____

Temperature (°C) _____ Specific Conductance (μS/cm) _____

DO Concentration (mg/L) _____ ORP (mV) _____

TDS _____

Post Development Information Time (Finished) _____

Water Level _____ Total Depth of Well _____

Approximate Volume Removed (gal) _____

Water Characteristics

Color	None	Weak	Clear	Cloudy
Odor	None	Weak	Moderate	Strong

Any films or immiscible material _____

Comments



MONITORING WELL SAMPLING RECORD

(2)

PID Reading

Job Number 093010

Location GOWANUS CANAL

Well Number GL-MW 23S

Job Name

GOWANUS CANAL

By DREW BLICHLARZ

Date

7/21/10

Measurement Datum

Pre-Development Information

Water Level

Time (start)

One Purge Vol

Total Depth of Well

Three Well Volume

Water Characteristics

Color

Brown Yellow

Clear

Odor

None

Weak

Moderate

SUBTLTY
Cloudy

Any films or immiscible material

SHEEN SPECKS

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (μS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS
<u>9:15</u>	<u>9:15</u>	<u>6.82</u>	<u>16.88</u>	<u>2049</u>	<u>1.723</u>	<u>118.7</u>	<u>7.93</u>	<u>-200.1</u>
<u>9:25</u>	<u>9:25</u>	<u>6.82</u>	<u>16.71</u>	<u>2043</u>	<u>1.720</u>	<u>99.2</u>	<u>8.05</u>	<u>-200.1</u>
	<u>9:30</u>	<u>6.82</u>	<u>16.72</u>	<u>2039</u>	<u>1.717</u>	<u>132.8</u>	<u>8.02</u>	<u>-199.2</u>
	<u>9:35</u>	<u>6.81</u>	<u>16.76</u>	<u>2036</u>	<u>1.717</u>	<u>81.8</u>	<u>8.02</u>	<u>-199.3</u>
<u>~ 5</u>	<u>9:45</u>	<u>6.82</u>	<u>16.80</u>	<u>2036</u>	<u>1.716</u>	<u>77.8</u>	<u>8.11</u>	<u>-199.3</u>
	<u>9:50</u>	<u>6.81</u>	<u>16.86</u>	<u>2031</u>	<u>1.715</u>	<u>76.0</u>	<u>8.16</u>	<u>-198.2</u>
	<u>10:00</u>	<u>6.81</u>	<u>17.05</u>	<u>2033</u>	<u>1.725</u>	<u>73.4</u>	<u>8.10</u>	<u>-199.1</u>
<u>~ 6</u>	<u>10:05</u>	<u>6.80</u>	<u>16.84</u>	<u>2030</u>	<u>1.714</u>	<u>67.7</u>	<u>8.08</u>	<u>-198.9</u>
	<u>10:10</u>	<u>6.79</u>	<u>16.83</u>	<u>2028</u>	<u>1.715</u>	<u>66.6</u>	<u>8.07</u>	<u>-197.6</u>
	<u>10:15</u>	<u>6.78</u>	<u>16.88</u>	<u>2029</u>	<u>1.715</u>	<u>66.2</u>	<u>8.11</u>	<u>-199.1</u>

Total Volume Removed (gal)

pH

Temperature (°C)

Specific Conductance (μS/cm)

DO Concentration (mg/L)

ORP (mV)

TDS

Post Development Information

Time (Finished)

Water Level

Total Depth of Well

Approximate Volume Removed (gal)

Water Characteristics

Color

Clear

Cloudy

Odor

None

Weak

Moderate

Strong

Any films or immiscible material

Comments



MONITORING WELL SAMPLING RECORD

(3)

PID Reading _____
Job Number 093010
Location GOWANUS CANAL
Well Number GC-MW23S

Job Name GOWANUS CANAL
By DREW BULKARZ Date 7/21/10
Measurement Datum _____

Pre-Development Information

Time (start) _____
Water Level _____ Total Depth of Well _____
One Purge Vol _____ Three Well Volume _____

Water Characteristics

Color _____ Clear SLIGHTLY
Cloudy
Odor None Weak Moderate Strong
Any films or immiscible material SHEEN SPECKS

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (μS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS	D.O. %	DTW
Normal	10:20	6.77	16.99	2024 1.715	61.0	8.15	-197.3			
~ 7	10:25	6.76	17.00	2028 1.718	57.5	8.15	-197.9		84.8	
									84.6	4.70

Total Volume Removed (gal) ~8 pH _____

Temperature (°C) _____ Specific Conductance (μS/cm) _____

DO Concentration (mg/L) _____ ORP (mV) _____

TDS _____

Post Development Information Time (Finished) _____

Water Level 4.66' Total Depth of Well _____

Approximate Volume Removed (gal) 4.75' STEADY 5.90' INTERMITTENT

Water Characteristics Pump out of WELL DTB = 13.20'

Color _____ Clear _____ Cloudy _____

Odor None Weak Moderate Strong

Any films or immiscible material _____

Comments _____

Appendix D

Field Documentation

D-06 – Groundwater Sampling Field Forms

NYC Groundwater Sampling Field Forms

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**LOW FLOW SAMPLING
DATA SHEET**

SHEET 1 OF 1

SITE:	Gowanus Canal Groundwater Investigation		CONSULTING FIRM:	The Louis Berger Group, Inc				
DATE:	6/25/2010		FIELD PERSONNEL:	J.Ganz				
WEATHER:	90's, Hazy, High Humidity, Low Wind							
MONITOR WELL #:	MW01S	WELL DEPTH:	16.88					
WELL PERMIT #:		WELL DIAMETER:	2"	SCREENED/OPEN INTERVAL:			16.88-6.88'	
WATER QUALITY METER & SERIAL No.:								
PID BACKGROUND :	< 1.0		PUMP INTAKE DEPTH:			12 ft below TOC		
PID BENEATH OUTER CAP:	< 1.0		DEPTH TO WATER BEFORE PUMP INSTALLATION:			8.61 ft below TOC		
PID BENEATH INNER CAP:	2.5							
TIME	pH (pH units)	SPECIFIC CONDUCTIVITY (Ms/cm)	REDOX POTENTIAL (mv)	DISSOLVED OXYGEN (mg/l)	TURBIDITY (NTU)	TEMPERATURE (degrees C)	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
	reading	reading	reading	reading	reading	reading		
808	7.38	8.71	-53	3.01	907	18.48	230	8.61
813	6.91	8.92	-74	0.21	805	16.96	230	9.14
818	6.92	4.91	-149	0	363	16.97	230	9.19
823	6.95	5.03	-185	0	265	16.94	230	9.21
828	6.96	5.13	-201	0	124	16.97	230	9.15
833	6.97	5.18	-211	0	79.7	16.96	230	9.22
838	6.99	5.22	-218	0	60.1	16.85	230	9.13
843	6.98	5.29	-220	0	79	16.83	230	9.20
848	7	5.29	-226	0	233	16.93	230	9.20
853	6.99	5.34	-231	0	89	16.94	230	9.21
858	6.99	5.38	-228	0	62.4	16.96	230	9.16
903	7	5.38	-226	0	65.6	17	230	8.86
908	7	5.39	-226	0	60.1	17.01	230	8.92

COMMENTS: **Sampled @ 0920** **Fe+2=1.3**

ANALYSIS: **VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals**

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity**

**LOW FLOW SAMPLING
DATA SHEET**

SHEET 1 OF 1

SITE:	Gowanus Canal Groundwater Investigation		CONSULTING FIRM:	The Louis Berger Group, Inc				
DATE:	6/25/2010		FIELD PERSONNEL:	J.Ganz				
WEATHER:	90's, Hazy, High Humidity, Low Wind							
MONITOR WELL #:	MW01I	WELL DEPTH:	34.8					
WELL PERMIT #:		WELL DIAMETER:	2"	SCREENED/OPEN INTERVAL: 34.80-39.80'				
WATER QUALITY METER & SERIAL No.:								
PID BACKGROUND :		< 1.0	PUMP INTAKE DEPTH:		37.3 ft below TOC			
PID BENEATH OUTER CAP:		< 1.0	DEPTH TO WATER BEFORE PUMP INSTALLATION:		6.76 ft below TOC			
TIME	pH (pH units)	SPECIFIC CONDUCTIVITY (Ms/cm)	REDOX POTENTIAL (mv)	DISSOLVED OXYGEN (mg/l)	TURBIDITY (NTU)	TEMPERATURE (degrees C)	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
	reading	reading	reading	reading	reading	reading		
1038	7.64	1.83	-78	4.98	> 999	17.39	150	6.76
1043	7.44	1.89	-133	0	> 999	16.26	250	7.21
1048	7.41	1.79	-152	0	> 999	16.16	250	7.57
1053	7.31	1.58	-156	0	> 999	16.47	250	7.50
1058	7.38	1.48	-162	0	> 999	16.53	250	7.42
1103	7.43	1.44	-165	0	> 999	16.51	250	7.44
1108	7.44	1.41	-166	0	> 999	16.51	250	7.27
1113	7.46	1.39	-166	0	> 999	16.41	250	7.46
1118	7.44	1.38	-167	0	> 999	16.5	250	7.44
1123	7.43	1.38	-167	0	> 999	16.46	250	7.47

COMMENTS: Sampled @ 1125

Fe+2=1.9

ANALYSIS: VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals, Natural Attenuation Parameters

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity

**LOW FLOW SAMPLING
DATA SHEET**

SHEET 1 OF 1

SITE:	Gowanus Canal Groundwater Investigation		CONSULTING FIRM:	The Louis Berger Group, Inc					
DATE:	6/25/2010		FIELD PERSONNEL:	R. Kamenitzer					
WEATHER:	90's, Hazy, High Humidity, Low Wind								
MONITOR WELL #:	MW02S	WELL DEPTH:	11.75	WELL PERMIT #:	_____	WELL DIAMETER:	2"	SCREENED/OPEN INTERVAL:	1.75-11.75
WATER QUALITY METER & SERIAL No.:									
PID BACKGROUND :	< 1.0		PUMP INTAKE DEPTH:	7.75 ft below TOC					
PID BENEATH OUTER CAP:	< 1.0								
PID BENEATH INNER CAP:	< 1.0		DEPTH TO WATER BEFORE PUMP INSTALLATION:			3.08 ft below TOC			
TIME	pH (pH units)	SPECIFIC CONDUCTIVITY (Ms/cm)	REDOX POTENTIAL (mv)	DISSOLVED OXYGEN (mg/l)	TURBIDITY (NTU)	TEMPERATURE (degrees C)	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)	
	reading	reading	reading	reading	reading	reading			
815	6.5	3.23	-92	0.3	> 999	19.65	350	3.10	
820	6.35	2.78	-99	0.14	> 999	20.47	350	3.10	
825	6.35	1.86	-99	0.07	130	21.47	350	3.10	
830	6.37	1.63	-101	0.06	76	21.56	350	3.10	
835	6.4	1.44	-106	0.03	34.8	21.81	350	3.10	
840	6.41	1.38	-106	0.02	20.5	21.91	350	3.10	
845	6.42	1.25	-110	0.01	22	21.94	350	3.10	
850	6.44	1.24	-111	0	21.8	22.05	350	3.10	
855	6.45	1.2	-112	0	15.1	22.09	350	3.10	
900	6.46	1.18	-113	0	15.4	22.06	350	3.10	
905	6.46	1.15	-113	0	15.6	22.23	350	3.10	

COMMENTS: Sampled @ 0910 Fe+2=3.25

ANALYSIS: VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals, Natural Attenuation Parameters

The pumping rate was decreased to 250 ml/min prior to sampling

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity

**LOW FLOW SAMPLING
DATA SHEET**

SHEET 1 OF 1

SITE:	Gowanus Canal Groundwater Investigation		CONSULTING FIRM:	The Louis Berger Group, Inc					
DATE:	6/25/2010		FIELD PERSONNEL:	R. Kamenitzer					
WEATHER:	90's, Hazy, High Humidity, Low Wind								
MONITOR WELL #:	MW02I	WELL DEPTH:	33.8	WELL PERMIT #:	_____	WELL DIAMETER:	2"	SCREENED/OPEN INTERVAL:	28.8-33.8
WATER QUALITY METER & SERIAL No.:									
PID BACKGROUND :	< 1.0		PUMP INTAKE DEPTH:	31.3 ft below TOC					
PID BENEATH OUTER CAP:	< 1.0								
PID BENEATH INNER CAP:	3.8		DEPTH TO WATER BEFORE PUMP INSTALLATION:			2.64 ft below TOC			
TIME	pH (pH units)	SPECIFIC CONDUCTIVITY (Ms/cm)	REDOX POTENTIAL (mv)	DISSOLVED OXYGEN (mg/l)	TURBIDITY (NTU)	TEMPERATURE (degrees C)	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)	
	reading	reading	reading	reading	reading	reading			
1040	6.58	0.927	-70	0.37	> 999	17.46	310	2.70	
1045	7.27	0.916	-156	0	> 999	17.56	310	2.70	
1051	7.32	0.916	-161	0	> 999	17.44	310	2.70	
1055	6.99	0.917	-124	0	> 999	17.59	310	2.70	
1100	6.76	0.921	-105	0	> 999	17.54	310	2.70	
1105	6.78	0.921	-105	0	689	17.52	310	2.70	
1110	6.83	0.917	-113	0	483	17.56	310	2.70	
1115	6.86	0.919	-119	0	333	17.4	310	2.70	
1120	6.86	0.926	-120	0	199	17.49	310	2.70	
1125	6.97	0.926	-132	0	118	17.4	310	2.70	
1130	7	0.923	-135	0	114	17.5	310	2.70	
1135	7.04	0.916	-140	0	110	17.47	310	2.70	

COMMENTS: Sampled @ 1145 Fe+2=.9

ANALYSIS: VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals, Natural Attenuation Parameters

The pumping rate was decreased to 250 ml/min prior to sampling

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity**

**LOW FLOW SAMPLING
DATA SHEET**

SHEET 1 OF 1

SITE:	Gowanus Canal Groundwater Investigation		CONSULTING FIRM:	The Louis Berger Group, Inc				
DATE:	6/24/2010		FIELD PERSONNEL:	R. Kamenitzer				
WEATHER:	90's, Hazy, High Humidity, Low Wind							
MONITOR WELL #:	MW09S	WELL DEPTH:	14.75		SCREENED/OPEN INTERVAL:	14.75 - 4.75		
WELL PERMIT #:		WELL DIAMETER:	2					
WATER QUALITY METER & SERIAL No.:								
PID BACKGROUND :	< 1.0		PUMP INTAKE DEPTH: 11.75 ft below TOC					
PID BEHNEATH OUTER CAP:	< 1.0							
PID BEHNEATH INNER CAP:	3.8		DEPTH TO WATER BEFORE PUMP INSTALLATION: 8.75 ft below TOC					
TIME	pH (pH units)	SPECIFIC CONDUCTIVITY (Ms/cm)	REDOX POTENTIAL (mv)	DISSOLVED OXYGEN (mg/l)	TURBIDITY (NTU)	TEMPERATURE (degrees C)	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
	reading	reading	reading	reading	reading	reading		
700	9.82	2.34	-245	0	> 999	15.18	200	9.25
705	9.29	2.9	-252	0	> 999	15.27	200	9.25
710	9.11	3.33	-280	0	> 999	15.13	200	9.25
715	8.97	3.61	-280	0	> 999	14.86	200	9.25
720	8.82	3.98	-297	0	> 999	14.98	200	9.25
725	8.63	4.3	-298	0	> 999	14.87	200	9.25
730	8.56	4.51	-294	0	> 999	14.92	200	9.25
735	8.47	4.8	-288	0	> 999	14.77	200	9.25
740	8.45	4.93	-286	0	> 999	14.79	200	9.25
745	8.37	5.04	-281	0	> 999	15.17	200	9.25
750	8.35	5.08	-275	0	> 999	14.89	200	9.25
755	8.34	5.12	-273	0	> 999	14.78	200	9.25

COMMENTS: Sampled @ 0810 DUPE01 taken Fe+2=1.9

ANALYSIS: VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals, Natural Attenuation Parameters

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity

**LOW FLOW SAMPLING
DATA SHEET**

SHEET 1 OF 1

SITE:	Gowanus Canal Groundwater Investigation		CONSULTING FIRM:	The Louis Berger Group, Inc				
DATE:	6/24/2010		FIELD PERSONNEL:	R. Kamenitzer				
WEATHER:	90's, Hazy, High Humidity, Low Wind							
MONITOR WELL #:	MW09I	WELL DEPTH:	38.92					
WELL PERMIT #:		WELL DIAMETER:	2"		SCREENED/OPEN INTERVAL:	33.92-38.92		
WATER QUALITY METER & SERIAL No.:								
PID BACKGROUND :	< 1.0		PUMP INTAKE DEPTH: 36.42 ft below TOC					
PID BENEATH OUTER CAP:	< 1.0							
PID BENEATH INNER CAP:	< 1.0		DEPTH TO WATER BEFORE PUMP INSTALLATION: 7.52 ft below TOC					
TIME	pH (pH units)	SPECIFIC CONDUCTIVITY (Ms/cm)	REDOX POTENTIAL (mv)	DISSOLVED OXYGEN (mg/l)	TURBIDITY (NTU)	TEMPERATURE (degrees C)	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
	reading	reading	reading	reading	reading	reading		
1000	7.56	3.67	-132	0.96	> 999	17	225	6.75
1005	7.57	3.62	-137	0.31	> 999	17.27	225	6.75
1010	7.58	3.56	-153	0.05	> 999	17.53	225	6.75
1015	7.57	3.49	-161	0	> 999	17.53	225	6.75
1020	7.56	3.43	-170	0	> 999	17.57	225	6.75
1025	7.56	3.38	-173	0	> 999	17.2	225	6.75
1030	7.53	3.39	-178	0	> 999	17.3	225	6.75

COMMENTS: **Sampled @ 1040 Fe+2=3.8**

ANALYSIS: **VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals, Natural Attenuation Parameters**

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity**

**LOW FLOW SAMPLING
DATA SHEET**

SHEET 1 OF 1

SITE:	Gowanus Canal Groundwater Investigation		CONSULTING FIRM:	The Louis Berger Group, Inc				
DATE:	6/24/2010		FIELD PERSONNEL:	R. Kamenitzer				
WEATHER:	90's, Hazy, High Humidity, Low Wind							
MONITOR WELL #:	MW10S	WELL DEPTH:	15.00'					
WELL PERMIT #:		WELL DIAMETER:	2"	SCREENED/OPEN INTERVAL: 5.00-15.00'				
WATER QUALITY METER & SERIAL No.:								
PID BACKGROUND :	< 1.0		PUMP INTAKE DEPTH:	10 ft below TOC				
PID BENEATH OUTER CAP:	< 1.0							
PID BENEATH INNER CAP:			DEPTH TO WATER BEFORE PUMP INSTALLATION:	11.50 ft below TOC				
TIME	pH (pH units)	SPECIFIC CONDUCTIVITY (Ms/cm)	REDOX POTENTIAL (mv)	DISSOLVED OXYGEN (mg/l)	TURBIDITY (NTU)	TEMPERATURE (degrees C)	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
	reading	reading	reading	reading	reading	reading		
1300	6.34	1.59	74	1.02	> 999	17.75	150	11.50
1305	6.35	1.54	42	0.48	> 999	18.41	150	11.55
1310	6.55	1.55	16	0.45	570	17.23	150	11.57
1315	6.7	1.54	1	0.4	322	18.15	150	11.50
1320	6.84	1.53	-11	1.44	212	18.85	150	11.57
1325	6.96	1.53	-11	1.98	140	19.16	150	11.60
1330	6.92	1.53	-4	3.5	100	19.87	150	11.47
1335	6.96	1.53	-4	3.52	74.6	19.96	150	11.60
1340	6.95	1.53	-2	3.66	254	19.4	150	11.61
1345	6.94	1.51	4	4.35	353	21.09	150	11.63
1350	6.96	1.51	4	4.8	350	21.32	150	11.69
1355	6.95	1.51	5	4.94	125	21.18	150	11.70
1400	6.95	1.52	4	5.07	82.2	21.19	150	11.71
1405	6.94	1.51	3	5.22	83.9	21.33	150	11.72
1410	6.94	1.51	3	5.27	82.5	21.04	150	11.72

COMMENTS: Sampled @ 1410 Fe+2=.6

ANALYSIS: VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity

**LOW FLOW SAMPLING
DATA SHEET**

SHEET 1 OF 1

SITE:	Gowanus Canal Groundwater Investigation		CONSULTING FIRM:	The Louis Berger Group, Inc				
DATE:	6/24/2010		FIELD PERSONNEL:	J.Ganz				
WEATHER:	90's, Hazy, High Humidity, Low Wind							
MONITOR WELL #:	MW10I	WELL DEPTH:	45'	SCREENED/OPEN INTERVAL:	45.0 - 40'			
WELL PERMIT #:		WELL DIAMETER:	2"					
WATER QUALITY METER & SERIAL No.:								
PID BACKGROUND :	< 1.0		PUMP INTAKE DEPTH:	43 ft below TOC				
PID BENEATH OUTER CAP:	< 1.0		DEPTH TO WATER BEFORE PUMP INSTALLATION:	10.71 ft below TOC				
PID BENEATH INNER CAP:	5							
TIME	pH (pH units)	SPECIFIC CONDUCTIVITY (Ms/cm)	REDOX POTENTIAL (mv)	DISSOLVED OXYGEN (mg/l)	TURBIDITY (NTU)	TEMPERATURE (degrees C)	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
	reading	reading	reading	reading	reading	reading		
645	6.46	0.713	119	5.37	> 999	18.63	360	10.71
650	6.65	1.05	47	0.37	> 999	16.19	330	10.86
655	6.7	1.06	35	0	> 999	16.07	330	10.66
700	6.39	1.05	47	0.11	> 999	16.45	330	10.69
705	6.4	1.05	46	0.22	> 999	17	330	10.68
710	6.39	1.06	48	0.08	> 999	16.6	330	10.86
715	6.37	1.06	40	0	> 999	16.32	330	10.88
720	6.43	1.06	34	0	> 999	16.41	330	10.89
725	6.7	1.06	17	0	> 999	16.71	330	10.82
730	6.76	1.06	13	0	801	16.49	330	10.80
735	6.86	1.06	5	0	660	16.49	330	10.82
740	6.94	1.06	0	0	527	16.72	330	10.82
745	6.98	1.06	-1	0	385	16.81	330	10.70
750	7.02	1.06	-3	0	385	16.86	330	10.78
755	7.04	1.06	-1	0	380	16.86	330	10.80

COMMENTS: Sampled @ 0800

Fe+2=2.4

ANALYSIS: VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals

The pumping rate was decreased to 250 ml/min prior to sampling

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; $\pm 3\%$ for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and $\pm 10\%$ for Dissolved Oxygen and Turbidity

**LOW FLOW SAMPLING
DATA SHEET**

SHEET 1 OF 1

SITE:	Gowanus Canal Groundwater Investigation		CONSULTING FIRM:	The Louis Berger Group, Inc				
DATE:	6/28/2010		FIELD PERSONNEL:	J.Nelson				
WEATHER:	75-85°F Sunny							
MONITOR WELL #:	MW17S	WELL DEPTH:	15'					
WELL PERMIT #:		WELL DIAMETER:	2"	SCREENED/OPEN INTERVAL: 10.00-15.00				
WATER QUALITY METER & SERIAL No.:								
PID BACKGROUND :	< 1.0		PUMP INTAKE DEPTH: 11.2 ft below TOC					
PID BENEATH OUTER CAP:	< 1.0							
PID BENEATH INNER CAP:	1.2		DEPTH TO WATER BEFORE PUMP INSTALLATION: 7.40 ft below TOC					
TIME	pH (pH units)	SPECIFIC CONDUCTIVITY (Ms/cm)	REDOX POTENTIAL (mv)	DISSOLVED OXYGEN (mg/l)	TURBIDITY (NTU)	TEMPERATURE (degrees C)	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
	reading	reading	reading	reading	reading	reading		
730	6.55	1.86	-1	1.32	> 999	22.82	200	7.38
735	6.64	1.78	-18	0.24	> 999	23.04	200	7.38
740	6.72	1.81	-40	0	365	22.88	200	7.38
745	6.74	7.83	-75	0	102	22.15	200	7.41
750	6.73	1.82	-93	0	43.7	21.9	200	7.41
755	6.73	1.82	-101	0	35.2	21.82	200	7.41
800	6.75	1.82	-103	0	30.2	21.75	200	7.41
805	6.77	1.83	-114	0	29.1	21.7	200	7.41
810	6.79	1.85	-119	0	23.3	21.69	200	7.41
815	6.82	1.85	-124	0	23.7	21.64	200	7.41
820	6.84	1.85	-127	0	22.5	21.6	200	7.41

COMMENTS: Sampled @ 0820 Fe+2=.06
ANALYSIS: VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity

**LOW FLOW SAMPLING
DATA SHEET**

SHEET 1 OF 1

SITE:	Gowanus Canal Groundwater Investigation		CONSULTING FIRM:	The Louis Berger Group, Inc				
DATE:	6/28/2010		FIELD PERSONNEL:	J.Nelson				
WEATHER:	75-85°F Sunny							
MONITOR WELL #:	MW17I	WELL DEPTH:	44.35'					
WELL PERMIT #:		WELL DIAMETER:	2"		SCREENED/OPEN INTERVAL:	39.35-44.35'		
WATER QUALITY METER & SERIAL No.:								
PID BACKGROUND :	< 1.0		PUMP INTAKE DEPTH: 41.85 ft below TOC					
PID BENEATH OUTER CAP:	< 1.0							
PID BENEATH INNER CAP:	3.8		DEPTH TO WATER BEFORE PUMP INSTALLATION: 7.93 ft below TOC					
TIME	pH (pH units)	SPECIFIC CONDUCTIVITY (Ms/cm)	REDOX POTENTIAL (mv)	DISSOLVED OXYGEN (mg/l)	TURBIDITY (NTU)	TEMPERATURE (degrees C)	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
	reading	reading	reading	reading	reading	reading		
955	6.52	2.86	-101	1.5	216	19.79	400	8.76
1000	6.51	2.89	-115	0	69.2	19.85	300	10.27
1005	6.51	2.96	-115	0	84.9	20.98	250	10.51
1010	6.51	2.98	-114	0	102	21.1	250	10.68
1015	6.51	3.42	-113	0	160	21.22	250	10.76
1020	6.51	3.39	-114	0	156	21.24	250	10.81
1025	6.53	3.16	-114	0	159	21.38	250	10.85
1030	6.54	3.08	-116	0	156	21.46	250	10.88
1035	6.55	2.99	-118	0	159	21.42	250	10.88
1040	6.57	2.99	-119	0	240	21.42	250	10.88
1045	6.58	3.38	-111	0	239	21.19	250	10.88
1050	6.58	3.3	-113	0	229	20.92	250	10.88
1055	6.6	2.95	-118	0	230	20.89	250	10.88
1100	6.6	2.85	-119	0	225	21.04	250	10.88
1105	6.61	2.81	-121	0	225	20.75	250	10.88

COMMENTS: Sampled @ 1110 Fe+2=6.5

ANALYSIS: VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity

**LOW FLOW SAMPLING
DATA SHEET**

SHEET 1 OF 1

SITE:	Gowanus Canal Groundwater Investigation		CONSULTING FIRM:	The Louis Berger Group, Inc					
DATE:	6/28/2010		FIELD PERSONNEL:	R. Kamenitzer					
WEATHER:	75-85°F Sunny								
MONITOR WELL #:	MW18S	WELL DEPTH:	14.15	WELL PERMIT #:	_____	WELL DIAMETER:	2"	SCREENED/OPEN INTERVAL:	4.15-14.15
WATER QUALITY METER & SERIAL No.: _____									
PID BACKGROUND :	< 1.0		PUMP INTAKE DEPTH:		10.15 ft below TOC				
PID BENEATH OUTER CAP:	< 1.0		DEPTH TO WATER BEFORE PUMP INSTALLATION:		5.80 ft below TOC				
PID BENEATH INNER CAP:	< 1.0								
TIME	pH (pH units)	SPECIFIC CONDUCTIVITY (Ms/cm)	REDOX POTENTIAL (mv)	DISSOLVED OXYGEN (mg/l)	TURBIDITY (NTU)	TEMPERATURE (degrees C)	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)	
	reading	reading	reading	reading	reading	reading			
742	7.26	4.98	-100	2.06	775	19.86	525	6.10	
747	7.38	4.94	-96	2.56	547	19.54	400	6.15	
752	7.52	4.95	-103	2.16	324	19.29	400	6.15	
757	7.58	4.93	-110	1.99	244	19.09	400	6.15	
802	7.64	4.8	-114	1.8	181	18.96	400	6.15	
807	7.7	4.91	-116	2.07	130	18.79	400	6.15	
812	7.76	4.9	-120	2.08	134	18.69	400	6.15	
817	7.8	4.87	-118	2.39	60	18.57	400	6.15	
822	7.84	4.86	-121	2.21	66.3	18.61	400	6.15	
827	7.88	4.89	-127	0.9	59.2	18.33	400	6.15	
832	7.9	4.92	-131	0.88	58.9	18.25	400	6.15	
837	7.95	4.92	-139	0.84	54.8	18.27	400	6.15	
842	7.96	4.93	-140	0.81	56.3	18.11	400	6.15	

COMMENTS: **Sampled @ 0845 Fe+2=.4**

ANALYSIS: **VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals**

The pumping rate was decreased to 250 ml/min prior to sampling

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity**

**LOW FLOW SAMPLING
DATA SHEET**

SHEET 1 OF 1

SITE:	Gowanus Canal Groundwater Investigation		CONSULTING FIRM:	The Louis Berger Group, Inc				
DATE:	6/28/2010		FIELD PERSONNEL:	R. Kamenitzer				
WEATHER:	75-85°F Sunny							
MONITOR WELL #:	MW18I	WELL DEPTH:	56.2					
WELL PERMIT #:		WELL DIAMETER:	2"	SCREENED/OPEN INTERVAL: 51.2-56.2'				
WATER QUALITY METER & SERIAL No.:								
PID BACKGROUND :	< 1.0	PUMP INTAKE DEPTH:			54 ft below TOC			
PID BENEATH OUTER CAP:	< 1.0	DEPTH TO WATER BEFORE PUMP INSTALLATION:			8.40 ft below TOC			
PID BENEATH INNER CAP:	<1							
TIME	pH (pH units)	SPECIFIC CONDUCTIVITY (Ms/cm)	REDOX POTENTIAL (mv)	DISSOLVED OXYGEN (mg/l)	TURBIDITY (NTU)	TEMPERATURE (degrees C)	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
	reading	reading	reading	reading	reading	reading		
938	7.57	3.56	-47	4.33	> 999	17.07	270	8.25
943	7.52	3.57	-59	0.95	> 999	17.13	270	8.25
948	7.58	3.27	-67	0.48	> 999	17.02	270	8.25
953	7.61	3.13	-66	0.55	943	16.99	270	8.25
958	7.64	3.05	-66	0.35	793	16.87	270	8.25
1003	7.65	2.92	-69	0.29	668	17.5	270	8.25
1008	7.66	2.86	-71	0.26	666	16.92	270	8.25
1013	7.67	2.79	-71	0.24	546	17.01	270	8.25
1018	7.67	2.77	-71	0.23	483	17.05	270	8.25
1023	7.68	2.74	-71	0.22	476	16.94	270	8.25
1028	7.68	2.71	-70	0.21	450	17.1	270	8.25

COMMENTS: Sampled @ 1035 Fe+2=0.6

ANALYSIS: VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals

The pumping rate was decreased to 250 ml/min prior to sampling

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity**

**LOW FLOW SAMPLING
DATA SHEET**

SHEET 1 OF 1

SITE:	Gowanus Canal Groundwater Investigation		CONSULTING FIRM:	The Louis Berger Group, Inc					
DATE:	6/28/2010		FIELD PERSONNEL:	J.Ganz					
WEATHER:	75-85°F Sunny								
MONITOR WELL #:	MW19S	WELL DEPTH:	15.00'	WELL PERMIT #:	_____	WELL DIAMETER:	2"	SCREENED/OPEN INTERVAL:	5.00-15.00'
WATER QUALITY METER & SERIAL No.: _____									
PID BACKGROUND :	< 1.0		PUMP INTAKE DEPTH:	10 ft below TOC					
PID BENEATH OUTER CAP:	< 1.0		DEPTH TO WATER BEFORE PUMP INSTALLATION:				4.64 ft below TOC		
PID BENEATH INNER CAP:	< 1.0								
TIME	pH (pH units)	SPECIFIC CONDUCTIVITY (Ms/cm)	REDOX POTENTIAL (mv)	DISSOLVED OXYGEN (mg/l)	TURBIDITY (NTU)	TEMPERATURE (degrees C)	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)	
	reading	reading	reading	reading	reading	reading			
707	7.44	2.78	-137	4.51	-5	19.82	350	4.64	
712	7.04	3.86	-164	0	-5	19	350	4.68	
717	7.16	2.99	-181	0	487	19.34	350	4.68	
722	7.25	3.01	-202	0	456	19.24	350	4.68	
727	7.32	3.15	-216	0	447	19.2	350	4.68	
732	7.44	3.16	-234	0	372	19.22	350	4.68	
737	7.44	3.15	-234	0	380	19.2	350	4.68	
742	7.45	3.14	-240	0	377	19.19	350	4.68	
747	7.45	3.15	-241	0	375	19.2	350	4.68	

COMMENTS: Sampled @ 0800 Fe+2=2.0

ANALYSIS: VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals

The pumping rate was decreased to 250 ml/min prior to sampling

*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity

**LOW FLOW SAMPLING
DATA SHEET**

SHEET 1 OF 1

SITE:	Gowanus Canal Groundwater Investigation		CONSULTING FIRM:	The Louis Berger Group, Inc				
DATE:	6/28/2010		FIELD PERSONNEL:	J.Ganz				
WEATHER:	75-85°F Sunny							
MONITOR WELL #:	MW19I	WELL DEPTH:	59.11'					
WELL PERMIT #:		WELL DIAMETER:	2"		SCREENED/OPEN INTERVAL:	54.11-59.11'		
WATER QUALITY METER & SERIAL No.:								
PID BACKGROUND :	< 1.0		PUMP INTAKE DEPTH: 56.61 ft below TOC					
PID BENEATH OUTER CAP:	< 1.0							
PID BENEATH INNER CAP:	< 1.0		DEPTH TO WATER BEFORE PUMP INSTALLATION: 6.49 ft below TOC					
TIME	pH (pH units)	SPECIFIC CONDUCTIVITY (Ms/cm)	REDOX POTENTIAL (mv)	DISSOLVED OXYGEN (mg/l)	TURBIDITY (NTU)	TEMPERATURE (degrees C)	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
	reading	reading	reading	reading	reading	reading		
909	8.11	8.37	-26	1.18	> 999	16.62	250	6.49
914	7.95	9.69	-95	0	> 999	16.62	250	6.27
919	7.96	9.96	-100	0	> 999	16.36	250	6.25
924	7.98	12.2	-103	0	> 999	16.21	250	6.25
929	7.99	9.93	-81	0	760	16.45	250	6.25
934	7.98	9.99	-52	0	433	16.21	250	6.25
939	7.96	12.6	-87	0	359	16.35	250	6.25
944	7.95	12.5	-94	0	261	16.22	250	6.25
949	7.94	12.5	-96	0	227	16.22	250	6.25
954	7.93	12.5	-96	0	223	16.22	250	6.25
959	7.92	12.7	-97	0	220	16.08	250	6.25
1004	7.92	12.5	-96	0	219	16	250	6.25

COMMENTS: **Sampled @1015 Fe+2=01.6**

ANALYSIS: **VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals**

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity**