

**Direct Push Technology (DPT)  
Bore Logs From The  
New York State Canal Corporation/Allco/Leyerle Site**

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## Borehole Record for NCC- GPØ1

- HTRW Drilling Log
- Narrative Lithologic Description and Well Construction Diagram
- Well Development Record
- Well Development -- Parameter Measurements
- Groundwater Purge and Sampling Log
- Investigation - Derived Waste Inventory Sheet

<b>HTRW DRILLING LOG</b>		District <u>Kansas City</u>		Hole Number <u>NCC-GP01</u>	
1. Company Name <u>Ecology &amp; Environment Inc.</u>		2. Drill Subcontractor <u>Northstar/Geologic Inc.</u>		Sheet <u>1</u> of <u>3</u>	
3. Project <u>Hudson Facility Siting</u>		4. Location <u>Halfmoon, NY.</u>			
5. Name of Driller <u>Jud Powell</u>		6. Manufacturer's Designation of Drill <u>Geoprobe 5400</u>			
7. Sizes and Types of Drilling and Sampling Equipment <u>1.75" OD. Geoprobe Rods with acetate sleeves and discrete soil sampling system</u>		8. Hole Location <u>East of RT4, south end of site</u>		9. Surface Elevation	
		10. Date Started <u>10-9-03</u>		11. Date Completed <u>10-9-03</u>	
12. Overburden Thickness <u>&gt; 25'</u>		15. Depth Groundwater Encountered <u>~ 14' BGS</u>			
13. Depth Drilled Into Rock <u>NA</u>		16. Depth to Water and Elapsed Time After Drilling Completed <u>13.35' after 11 minutes</u>			
14. Total Depth of Hole <u>25'</u>		17. Other Water Level Managements (Specify)			
18. Geological Samples <u>NA</u>		Disturbed <u>—</u>		Undisturbed <u>—</u>	
19. Total Number of Core Boxes <u>NA</u>		20. Samples For Chemical Analysis		21. Total Core Recovery <u>NA</u> %	
		VOC <input checked="" type="checkbox"/>		Metals <input checked="" type="checkbox"/>	
		Other (Specify) <u>SVOCs</u>		Other (Specify) <u>Pest/PCBs</u>	
		Other (Specify) <u>CN</u>			
21. Disposition of Hole		Backfilled <input type="checkbox"/>		Monitoring Well <input checked="" type="checkbox"/>	
		<u>Temporary</u>		23. Signature of Inspector <u>Robert A. Meyer</u>	
LOCATION SKETCH/COMMENTS			SCALE:		
<p>SEE NCC-GP03 Log</p>					
PROJECT <u>Hudson Superfund Facility Siting</u>			HOLE NO. <u>NCC-GP01</u>		

Lock Number <sup>un-numbered</sup> Master Lock

**SCREENED WELL**

Stick-up 2.5 ft

Top of Grout NA ft

Sand 2' to surface

Top of Seal at 2 ft

Top of Sand Pack 4 ft

Top of Screen at 13 ft

Bottom of Screen at 23 ft

Bottom of Hole at 25 ft

Bottom of Sandpack at 23' BGS

GROUND SURFACE

**OPEN-HOLE WELL**

Stick-up \_\_\_\_\_ ft

Inner Casing Material \_\_\_\_\_

Inner Casing Inside Diameter \_\_\_\_\_ inches

Outer Casing Diameter \_\_\_\_\_ inches

Borehole Diameter \_\_\_\_\_ ft

Bedrock \_\_\_\_\_ ft

Bottom of Rock Socket/Outer Casing \_\_\_\_\_ ft

Bottom of Inner Casing \_\_\_\_\_ ft

Corehole Diameter \_\_\_\_\_

Bottom of Corehole \_\_\_\_\_ ft

Quantity of Material Used:

Bentonite Pellets \_\_\_\_\_

Cement \_\_\_\_\_

Borehole Diameter 1.75 inches

Cement/Bentonite \_\_\_\_\_

Grout \_\_\_\_\_

Screen Slot Size .010"

Screen Type slotted

PVC Sch. 40, 1" dia.

Stainless Steel \_\_\_\_\_

Pack Type/Size:

Sand No. 0

Gravel \_\_\_\_\_

Natural \_\_\_\_\_

NOTE: See pages 136 and 137 for well construction diagrams

*Robert A. [Signature]*

HTRW DRILLING LOG (Continuation Sheet)							Hole Number NCC-GP01
Project Hudson Facility Siting				Inspector Robert A. Myers		Sheet 3 of 8	Sheets
Elevation (A)	Depth (B)	Description of Materials (C)	Field Screening Results (D)	Geotech Sample or Core Box No. (E)	Analytical Sample No. (F)	Blow Count (G)	Remarks (H)
	0 1 2 3 4 5 6 7 8	0' to 4' Fill (CC)	↑ Oggen FID/PID in OZ and off soil core	N/A		NA	4' Run 1.8' Rec.
		4' to 8' Fill (CC)	↓				4' Run 1.9' Rec.

PROJECT Hudson Facility Siting

HOLE NO. NCC-GP01



HTRW DRILLING LOG (Continuation Sheet)							Hole Number
Project		Inspector				Sheet	Sheets
Hudson Facility Siting		Robert A. Meyer				5	of 8
Elevation (A)	Depth (B)	Description of Materials (C)	Field Screening Results (D)	Geotech Sample or Core Box No. (E)	Analytical Sample No. (F)	Blow Count (G)	Remarks (H)
	8	3' to $\approx 10'$ Fill (CC)	Oppm FID/PID $\uparrow$	NA		NA	4' Run 2.6' Rec.
	9						
	10	$\approx 10'$ to $12'$ CL					
	11						
	12	12' to 16' CL					4' Run 1.6' Rec.
	13						
	14						Water @ $\approx 14'$ BGS
	15						
	16						
PROJECT Hudson Facility Siting					HOLE NO. NCC-GPO1		





HTRW DRILLING LOG (Continuation Sheet)							Hole Number NCC-6P01
Project Hudson Facility Siting		Inspector Robert A. Meyer			Sheet 7 of 8		
Elevation (A)	Depth (B)	Description of Materials (C)	Field Screening Results (D)	Geotech Sample or Core Box No. (E)	Analytical Sample No. (F)	Blow Count (G)	Remarks (H)
16		16' to 19.5' CL	↑	NA		NA	
17			0 ppm in BZ and off soil				4' Run 3.9' Rec.
18							
19							
20		19.5' to 20' SP					
21			↓ ----- ↑				4' Run 3.4' Rec.
22			FID=0.2 ppm PID=0.5 ppm		1740 Collect NCC-6P01-SB From 22' to 24' B15		
23			↓				
24							1' Run 0.9' Rec.
25							

PROJECT Hudson Facility Siting

HOLE NO. NCC-6P01



## Borehole Record for NCC-GPØ2

- HTRW Drilling Log
- Narrative Lithologic Description and Well Construction Diagram
- Well Development Record
- Well Development -- Parameter Measurements
- Groundwater Purge and Sampling Log
- Investigation - Derived Waste Inventory Sheet

HTRW DRILLING LOG		District	Hole Number
1. Company Name <i>Ecology ENVU</i>		2. Drill Subcontractor <i>KANSAS CITY NORTHSTAR DRILLING</i>	NCC-6902 Sheet <i>1</i> of <i>4</i> Sheets
3. Project <i>CANAL Corp / Misc / Levee</i>		4. Location <i>HALEMOUN, NY</i>	
5. Name of Driller <i>Steve L. ... NORTHSTAR DRILLING</i>		6. Manufacturer's Designation of Drill <i>CME-45C</i>	
7. Sizes and Types of Drilling and Sampling Equipment <i>4 1/4" HSA</i>		8. Hole Location <i>NORTH 1/2 DRIVEWAY AREA of AUTO BUILDINGS</i>	
<i>2" X 24" SPLIT SPOON</i>		9. Surface Elevation	
12. Overburden Thickness <i>3.8'</i>		10. Date Started <i>10/7/03</i>	11. Date Completed <i>10/7/03</i>
13. Depth Drilled Into Rock <i>3.1'</i>		15. Depth Groundwater Encountered <i>N/A - Dry Hole</i>	
14. Total Depth of Hole <i>6.9'</i>		16. Depth to Water and Elapsed Time After Drilling Completed <i>N/A</i>	
18. Geological Samples		17. Other Water Level Managements (Specify) <i>N/A</i>	
Disturbed <i>0</i>		Undisturbed <i>1</i>	
19. Total Number of Core Boxes		21. Total Core Recovery % <i>100%</i>	
20. Samples For Chemical Analysis		23. Signature of Inspector <i>[Signature]</i>	
VOC <i>SVOCs, CYANO, PCB/PEST @1</i>		Metals <i>@1</i>	
Other (Specify) <i>GRAIN SIZE</i>		Other (Specify) <i>MOISTURE</i>	
Other (Specify) <i>OTHER</i>		Other (Specify) <i>OTHER</i>	
21. Disposition of Hole <i>Backfilled X</i>		Monitoring Well <i>-</i>	
<b>LOCATION SKETCH/COMMENTS</b> <div style="text-align: right; margin-right: 50px;"><b>SCALE:</b></div> <p style="text-align: center; font-size: 1.2em;"><i>See Figure for GT 01</i></p>			
<b>PROJECT</b>		<b>HOLE NO.</b> <i>NCC-6902</i>	

	Lock Number _____	
<b>SCREENED WELL</b>	Inner Casing Material _____	<b>OPEN-HOLE WELL</b>
Stick-up _____ ft	Inner Casing Inside Diameter _____ inches	Stick-up _____ ft
Top of Grout _____ ft	<b>GROUND SURFACE</b>	Inner Casing Material _____
Top of Seal at _____ ft	Quantity of Material Used:	Inner Casing Inside Diameter _____ inches
Top of Sand Pack _____ ft	Bentonite Pellets _____	Outer Casing Diameter _____ inches
Top of Screen at _____ ft	Cement _____	Borehole Diameter _____ ft
Bottom of Screen at _____ ft	Borehole _____ inches Diameter	Bedrock _____ ft
Bottom of Hole at _____ ft	Cement/Bentonite _____	Bottom of Rock Socket/Outer Casing _____ ft
Bottom of Sandpack at _____	Grout _____	Bottom of Inner Casing _____ ft
	Screen Slot Size _____	Corehole Diameter _____
	Screen Type _____	Bottom of Corehole _____ ft
	<input type="checkbox"/> PVC _____	
	<input type="checkbox"/> Stainless Steel _____	
	Pack Type/Size:	
	<input type="checkbox"/> Sand _____	
	<input type="checkbox"/> Gravel _____	
	<input type="checkbox"/> Natural _____	

NOTE: See pages 136 and 137 for well construction diagrams

*DRY Hole; no well constructed*

*- Sample NCC-GP/2-<sup>SB</sup> collected for VOC, SiOC, PCB/PPS/CLD, TAC METALS, TAC Cyanide. Collected @ 15:30. from T1A 0'-2' depth interval.*

*- All Breathing zone T1A-1000 Reading < 1 ppm.*

HTRW DRILLING LOG (Continuation Sheet)							Hole Number	
Project		Inspector			Sheet		Sheets	
NYS Canal Corp / West / Cayuga		Jon Nickerson			3 of 4		NCC-6P02	
Elevation (A)	Depth (B)	Description of Materials (C)	Field Screening Results (D)	Geotech Sample or Core Box No. (E)	Analytical Sample No. (F)	Blow Count (G)	Remarks (H)	
		OL	PID = 0.45	N/A		3' 5" down		
		Gm	PID = 0.38		NCC-6P02-05A	Blow Count 15.30	90%	
	2		PID = 0.45			3/3/5/31		
	3	ML	PID = 0.32					
	4	WEATHERED SHALE	PID = 1.45			30/50	30%	
	5	↓	FID = 0.35					
	6	↓	PID = 0.32			33/50		
	7		FID = 0.54			04		
	8	BOTTOM OF HOLE = 6.9' BGS						
PROJECT Hudson River PCB FACILITY SITING				HOLE NO. NCC-6P02				





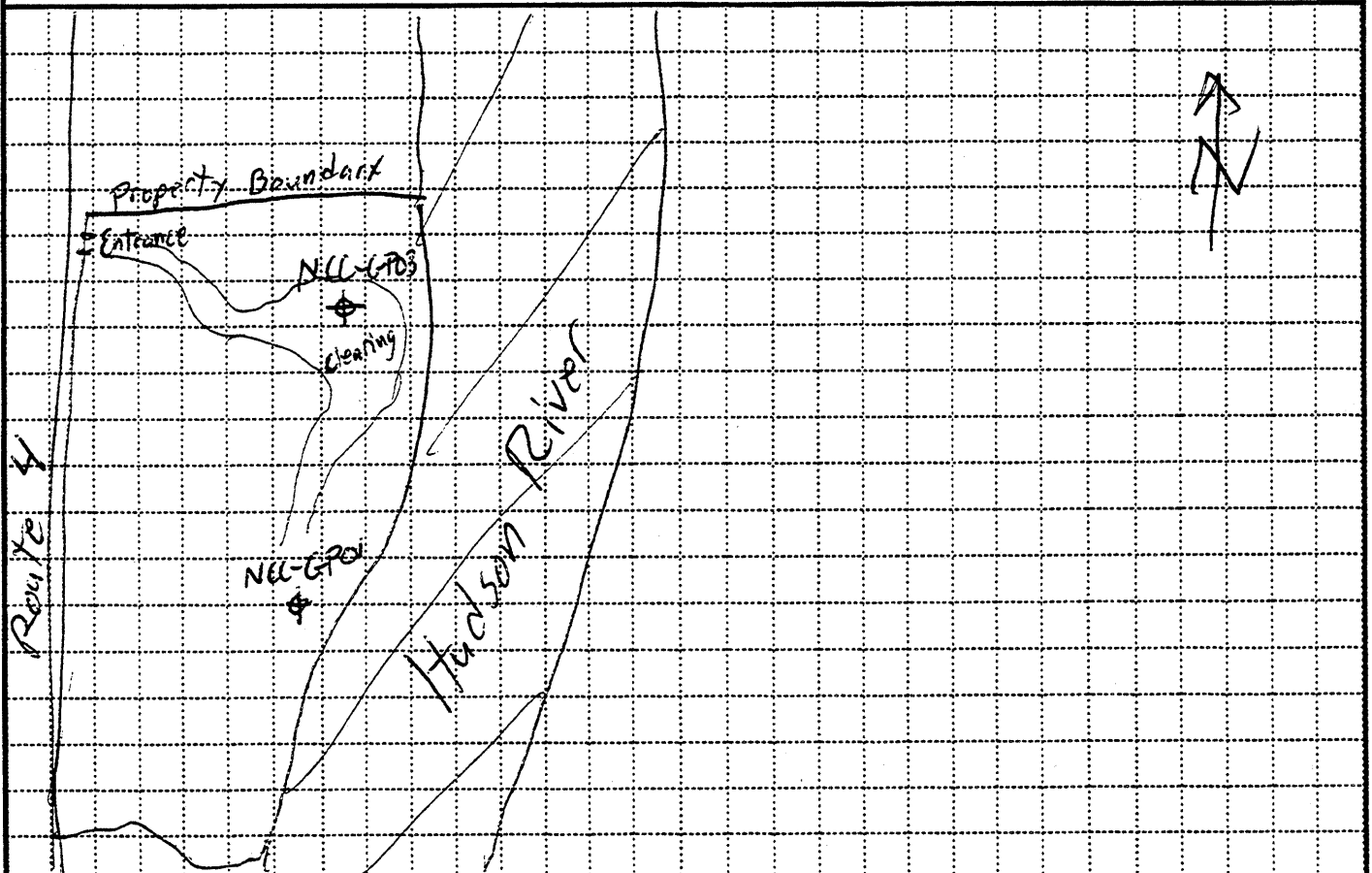
Borehole Record for ~~NCC-G-703~~ NCC-G-P03

- HTRW Drilling Log
- Narrative Lithologic Description and Well Construction Diagram
- Well Development Record
- Well Development -- Parameter Measurements
- Groundwater Purge and Sampling Log
- Investigation - Derived Waste Inventory Sheet

101 1103

<b>HTRW DRILLING LOG</b>		District <i>Kansas City Corps</i>		Hole Number <i>NCC-GP#3</i>	
1. Company Name <i>Ecology &amp; Environment Inc.</i>		2. Drill Subcontractor <i>Northstar/Geologic Inc</i>		Sheet <i>1</i> of <i>8</i> Sheets	
3. Project <i>Hudson Superfund Facility Siting</i>			4. Location <i>Hartman, NY</i>		
5. Name of Driller <i>Jud Powell</i>		6. Manufacturer's Designation of Drill <i>Geoprobe 5400</i>			
7. Sizes and Types of Drilling and Sampling Equipment <i>1.75" OD Geoprobe rods with Acetate sleeves and Distrirete soil sampling system</i>		8. Hole Location <i>East of Rt. 4, North end of property</i>			
		9. Surface Elevation		10. Date Started <i>10-9-03</i>	
				11. Date Completed <i>10-9-03</i>	
12. Overburden Thickness <i>22.9'</i>		15. Depth Groundwater Encountered <i>13.4' BGS</i>			
13. Depth Drilled into Rock <i>NA</i>		16. Depth to Water and Elapsed Time After Drilling Completed <i>10.00' BGS after 20 minutes</i>			
14. Total Depth of Hole <i>22.9'</i>		17. Other Water Level Managements (Specify)			
18. Geological Samples <i>NA</i>		Disturbed <i>—</i>		Undisturbed <i>—</i>	
19. Total Number of Core Boxes <i>NA</i>					
20. Samples For Chemical Analysis		VOC <input checked="" type="checkbox"/>	Metals <input checked="" type="checkbox"/>	Other (Specify) <i>SVOC</i>	Other (Specify) <i>Pest/PCB</i>
				Other (Specify) <i>CN</i>	21. Total Core Recovery <i>NA %</i>
21. Disposition of Hole		Backfilled	Monitoring Well <i>Temporary</i>	23. Signature of Inspector <i>Robert [Signature]</i>	

LOCATION SKETCH/COMMENTS SCALE:



PROJECT <i>Hudson River PCB Facility Siting</i>	HOLE NO. <i>NCC-GP#3</i>
--	-----------------------------

1176 2

Lock Number un-numbered  
Master Lock

SCREENED WELL

OPEN-HOLE WELL

Inner Casing Material NA

Stick-up \_\_\_\_\_ ft

Inner Casing Inside Diameter NA inches

Inner Casing Material \_\_\_\_\_

Inner Casing Inside Diameter \_\_\_\_\_ inches

Stick-up 2.65 ft

GROUND SURFACE

Top of Grout NA ft

Quantity of Material Used:  
Bentonite Pellets \_\_\_\_\_

Outer Casing Diameter \_\_\_\_\_ inches

Top of Seal at 2 ft

Cement \_\_\_\_\_

Borehole Diameter \_\_\_\_\_ ft

Top of Sand Pack 4 ft

Borehole Diameter 1.75 inches

Bedrock \_\_\_\_\_ ft

Top of Screen at 11 ft

Cement/Bentonite \_\_\_\_\_

Bottom of Rock Socket/  
Outer Casing \_\_\_\_\_ ft

Bottom of Screen at 21 ft

Grout \_\_\_\_\_

Bottom of Inner Casing \_\_\_\_\_ ft

Bottom of Hole at 22.9 ft

Screen Slot Size .010"

Corehole Diameter \_\_\_\_\_

Bottom of Sandpack at 22.9

Screen Type slotted  
 PVC sch. 40, 1" dia.  
 Stainless Steel \_\_\_\_\_

Pack Type/Size:  
 Sand No. 0  
 Gravel \_\_\_\_\_  
 Natural \_\_\_\_\_

Bottom of Corehole \_\_\_\_\_ ft

NOTE: See pages 136 and 137 for well construction diagrams

*Robert C. [Signature]*

**HTRW DRILLING LOG** (Continuation Sheet)

Hole Number  
*NCC-GP03*  
Sheet *3* of *8* Sheets

Project  
*NYS Canal Corp*

Inspector  
*Jai Williams RM* *Robert A. Myers*

Elevation (A)	Depth (B)	Description of Materials (C)	Field Screening Results (D)	Geotech Sample or Core Box No. (E)	Analytical Sample No. (F)	Blow Count (G)	Remarks (H)
	0	0' to 4' GM (Fill)	↑	NA	N/A	NA	
	1						4' Run 2.2' Rec
	2		Oppm FID/TID BZ & Soil				
	3		↓				
	4	4' to 8' GM (Fill)	↓				
	5						
	6						4' Run 3.3' Rec
	7						
	8		↓				

PROJECT  
*HUDSON RIVER PCB FACILITY SITING*

HOLE NO.  
*NCC-GP01*



HTRW DRILLING LOG (Continuation Sheet)							Hole Number NCC-GP03
Project Hudson Facility Siting		Inspector Robert A. Myer				Sheet 5 of 8	
Elevation (A)	Depth (B)	Description of Materials (C)	Field Screening Results (D)	Geotech Sample or Core Box No. (E)	Analytical Sample No. (F)	Blow Count (G)	Remarks (H)
	8	8' to 12' GM	0 ppm FID/PID BZ & soil	NA		NA	4' Run 3.8' Rec
	9						
	10		0.3 ppm FID and ≈ 0.2 ppm PID				
	11		0 ppm FID/PID BZ & soil				
	12	12' to 16' CL					4' Run 4' Rec. Water @ 13.4' BGS
	13		3.2 PID ≈ 0.5 FID				
	14						1940 collect NCC-GP03-5B From 14' to 16' BGS
	15						
	16						

PROJECT Hudson Facility Siting

HOLE NO. NCC-GP03

Depth (feet)	NARRATIVE LITHOLOGIC DESCRIPTION	Moisture Content		
		Dry	Moist	Wet
	8' to 12', Shale Fragments with some VF to coarse sand and silt and trace clay. Wet clay layer from $\approx$ 10.5' to 10.9' BGS,	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	12' to 16', <sup>13'</sup> Silty Clay with some angular shale few VF to coarse sand Water @ 13.4' BGS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

HTRW DRILLING LOG (Continuation Sheet)							Hole Number NCL-GP03
Project Hudson Facility Siting			Inspector Robert A. Meyer			Sheet 7 of 8	Sheets
Elevation (A)	Depth (B)	Description of Materials (C)	Field Screening Results (D)	Geotech Sample or Core Box No. (E)	Analytical Sample No. (F)	Blow Count (G)	Remarks (H)
16		16' to 20' GP	↑ Oppm FID/PID in BZ and soil core	NA		NA	4' Run 4' Rec
17							
18							
19							
20		20' to 21.4' GP	↓				2.9' Run 2.7' Rec.
21		21.4' to 22.9' CC					
22							
		Refusal @ 22.9' BGS	↓				

PROJECT Hudson Facility Siting

HOLE NO. NCL-GP03





**Geotechnical Bore Logs  
From The  
New York State Canal Corporation/Allco/Leyerle Site**

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# Borehole Record for NCG-670 / ~~NCG-670~~

- HTRW Drilling Log
- Narrative Lithologic Description and Well Construction Diagram
- Well Development Record
- Well Development -- Parameter Measurements
- Groundwater Purge and Sampling Log
- Investigation - Derived Waste Inventory Sheet

<b>HTRW DRILLING LOG</b>		District <i>Kansas City Corp</i>	Hole Number <i>NCC-GT-1</i>	
1. Company Name <i>Ecology + Environment, Inc</i>		2. Drill Subcontractor <i>Geologic/Norstar</i>		Sheet <i>1</i> of <del>4</del> <i>4</i>
3. Project <i>NYS Canal Corp/Algo/Levee</i>		4. Location <i>HAUFMOON NY</i>		
5. Name of Driller <i>Hudson River PCB Facility Siting</i>		6. Manufacturer's Designation of Drill <i>CME-45C</i>		
7. Sizes and Types of Drilling and Sampling Equipment <i>4 1/4" HSA</i> <i>2" X 24" SOUL SPOON SAMPLER</i>		8. Hole Location <i>SW CORNER of ALGO PROPERTY, EAST of HAUFMOON</i>		
		10. Date Started <i>10/7/03</i>		11. Date Completed <i>10/7/03</i>
12. Overburden Thickness <i>6.5'</i>		15. Depth Groundwater Encountered <i>2.0'</i>		
13. Depth Drilled into Rock <i>0' into Compact Rock</i>		16. Depth to Water and Elapsed Time After Drilling Completed <i>1.8' WATER IN STRAIN</i>		
14. Total Depth of Hole <i>6.5'</i>		17. Other Water Level Managements (Specify) <i>N/A</i>		
18. Geological Samples		Disturbed	Undisturbed	19. Total Number of Core Boxes <i>NONE</i>
20. Samples For Chemical Analysis		VOC <i>0</i>	Metals <i>0</i>	Other (Specify) <i>0</i>
21. Disposition of Hole		Backfilled <i>X</i>	Monitoring Well	Other (Specify)
23. Signature of Inspector <i>[Signature]</i>		21. Total Core Recovery <i>0</i> %		
<b>LOCATION SKETCH/COMMENTS</b>		SCALE: <i>NOT TO SCALE</i>		
PROJECT <i>New York State Canal Hudson River PCB Facility</i>		HOLE NO. <i>NCC-GT-1</i>		

SCREENED WELL		OPEN-HOLE WELL	
Stick-up _____ ft	Lock Number _____	Stick-up _____ ft	Inner Casing Material _____
Top of Grout _____ ft	Inner Casing Material _____	Inner Casing Material _____	Inner Casing Inside Diameter _____ inches
Top of Seal at _____ ft	Inner Casing Inside Diameter _____ inches	Inner Casing Inside Diameter _____ inches	
Top of Sand Pack _____ ft	GROUND SURFACE	Outer Casing Diameter _____ inches	Borehole Diameter _____ ft
Top of Screen at _____ ft	Quantity of Material Used:	Bedrock _____ ft	Bottom of Rock Socket/Outer Casing _____ ft
Bottom of Screen at _____ ft	Bentonite Pellets _____	Bottom of Inner Casing _____ ft	Corehole Diameter _____
Bottom of Hole at _____ ft	Cement _____	Bottom of Corehole _____ ft	
Bottom of Sandpack at _____	Borehole Diameter _____ inches		
	Cement/Bentonite _____		
	Grout _____		
	Screen Slot Size _____		
	Screen Type _____		
	<input type="checkbox"/> PVC _____		
	<input type="checkbox"/> Stainless Steel _____		
	Pack Type/Size:		
	<input type="checkbox"/> Sand _____		
	<input type="checkbox"/> Gravel _____		
	<input type="checkbox"/> Natural _____		

NOTE: See pages 136 and 137 for well construction diagrams

- No well water, Borehole drilled for Geotechnical purposes only

- Collected soil for full analysis from 0'-2' interval  
Site of ground

Sample Number NCC-GT01-A, at 14:10, for the 0'-2' interval  
PARTICLE SIZE, MOISTURE CONTENT, ATTERBERG LIMITS  
(11/10/03)

- All Breathing zone TWA-1000 Readings < 1 ppm

HTRW DRILLING LOG (Continuation Sheet)							Hole Number NCC-GT-1
Project NY C&A Corp / Nuc. / Legacy		Inspector Tom Nickerson				Sheet 3 of 4	Sheets 4
Elevation (A)	Depth (B)	Description of Materials (C)	Field Screening Results (D)	Geotech Sample or Core Box No. (E)	Analytical Sample No. (F)	Blow Count (G)	Remarks (H)
	1	Gm	PID = 0.8 FID = 1.2	N/A	NCC- GT-1- A	21/2/3 14110	30% Rec
	2	Gm (no sand)					
	3	CC	PID = 2.3 FID = 1.1			5/8/14 1/15 14118	30% Rec
	4						
	5	SPILL spoon REFUSAL WEATHERED SILT	PID = 1.8 FID = 0.27			22/50 0.3 Mg	60%
	6	↓ AUGER REFUSAL	PID = 0.85 FID = 0.73			50 0.1	50%
	7		Bottom				
	8						

DF Hole = 6.5' BGS

PROJECT HUDSON RIVER PCB FACILITY SITING

HOLE NO. NCC-GT-1

Depth (feet)	NARRATIVE LITHOLOGIC DESCRIPTION	Moisture Content		
		Dry	Moist	Wet
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0'-04	Brown Organic silt with w/Gravel 30%	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
0.4-1.6	Gravel/Sand/Silt; Brown; fine Fg, and c.g. sand. Gravel angular - subangular clasts	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.6	Silty gravel; Angular clasts; Trace Fg, sand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2'	Water Table	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.0'	Clay content 10% Clay gravel-silt mixture, rounded and subrounded clasts. Sand = fine, medium Fg; Brown. Clay provides low-mod cohesion, minimal plasticity. Saturated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.8	SPLIT SPECIMEN REFUSIVE Abrupt change to DRY WEATHERED BLACK SHALE GRAY SILT 10%	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.5	Auger Refusive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



## Borehole Record for NCL-G702 / GP05

- HTRW Drilling Log
- Narrative Lithologic Description and Well Construction Diagram
- Well Development Record
- Well Development -- Parameter Measurements
- Groundwater Purge and Sampling Log
- Investigation - Derived Waste Inventory Sheet

<b>HTRW DRILLING LOG</b>			District <i>KANSAS CITY CORPS</i>			Hole Number <i>NCC-GT#2</i>		
1. Company Name <i>ECOLOGIC AND ENVIRONMENT INC</i>			2. Drill Subcontractor <i>GEOLOGIC/NEKTASTAR</i>			Sheet <i>1</i> of <i>10</i> Sheets		
3. Project <i>HUDSON RIVER PCB FACILITY SITING NYS CAMP CAMP</i>				4. Location <i>HALFMOON NY</i>				
5. Name of Driller <i>DENNIS HENESTER / STEVE LARAMEE</i>				6. Manufacturer's Designation of Drill <i>CME-45C</i>				
7. Sizes and Types of Drilling and Sampling Equipment <i>4 1/4" HSA 2" X 24" SPLIT SPOON SAMPLER</i>				8. Hole Location <i>100' WEST of Pt 4, NE side of AUCO PARCEL</i>				
				9. Surface Elevation				
				10. Date Started <i>10/7/03</i>			11. Date Completed <i>10/16/03</i>	
12. Overburden Thickness <i>11"</i>				15. Depth Groundwater Encountered <i>NOT ENCOUNTERED</i>				
13. Depth Drilled into Rock <i>0'</i>				16. Depth to Water and Elapsed Time After Drilling Completed <i>-</i>				
14. Total Depth of Hole <i>11"</i>				17. Other Water Level Managements (Specify) <i>-</i>				
18. Geological Samples			Disturbed <i>0</i>		Undisturbed <i>6</i>		19. Total Number of Core Boxes <i>0</i>	
20. Samples For Chemical Analysis			VOC <i>1</i>	Metals <i>1</i>	Other (Specify) <i>PCB/PEST</i>	Other (Specify) <i>CYANIDE</i>	Other (Specify) <i>SVOCS</i>	21. Total Core Recovery <i>0</i> %
21. Disposition of Hole			Backfilled		Monitoring Well		23. Signature of Inspector <i>Don Jackson</i>	
<b>LOCATION SKETCH/COMMENTS</b>								
<p><i>SCALE:</i></p> <p><i>Refer to G-701 LOCATION FOR SKETCH FOR DETAILS</i></p>								
PROJECT <i>HUDSON RIVER PCB FACILITY SITING</i>						HOLE NO. <i>NCC-GT#2</i>		

	Lock Number _____	
<b>SCREENED WELL</b>	Inner Casing Material _____	Stick-up _____ ft
Stick-up _____ ft	Inner Casing Inside Diameter _____ inches	Inner Casing Material _____
Top of Grout _____ ft	<b>GROUND SURFACE</b>	Inner Casing Inside Diameter _____ inches
Top of Seal at _____ ft	Quantity of Material Used:	Outer Casing Diameter _____ inches
Top of Sand Pack _____ ft	Bentonite Pellets _____	Borehole Diameter _____ ft
Top of Screen at _____ ft	Cement _____	Bedrock _____ ft
Bottom of Screen at _____ ft	Borehole Diameter _____ inches	Bottom of Rock Socket/Outer Casing _____ ft
Bottom of Hole at _____ ft	Cement/Bentonite _____	Bottom of Inner Casing _____ ft
Bottom of Sandpack at _____	Grout _____	Corehole Diameter _____
	Screen Slot Size _____	Bottom of Corehole _____ ft
	Screen Type _____	
	<input type="checkbox"/> PVC _____	
	<input type="checkbox"/> Stainless Steel _____	
	Pack Type/Size:	
	<input type="checkbox"/> Sand _____	
	<input type="checkbox"/> Gravel _____	
	<input type="checkbox"/> Natural _____	

NOTE: See pages 136 and 137 for well construction diagrams

- No well constructed; Borehole for  
Geotechnical information only

~ Collected Geoprobe Sample WCC-GP05-SB at the  
4'-6' interval of G-T02

This Geotechnical Boring was selected to also serve as  
A Geoprobe Boring, as the Geoprobe could not bore  
through this rock/weathered rock matrix.

HTRW DRILLING LOG (Continuation Sheet)								Hole Number NCC-GT02
Project NYS Canal Corp		Inspector Joni Nickerson						Sheet 3 of 10
Elevation (A)	Depth (B)	Description of Materials (C)	Field Screening Results (P) (P.P.M.)	Geotech Sample or Core Box No. (E)	Analytical Sample No. (F)	Blow Count (G)	Remarks (H)	
	1	Gm	P.L.D = 0.6 P.L.D = 0.2	NA		3/5/54		
	2					10:04	30% Rec	
	3	BLACK SHALE FRAGMENTS Gw	P.L.D = 4.2 F.L.D = 0.3	NCC-GP05-SB ① 12/6/03	NCC-GP07-G	3/12/40 50	80% Rec	
	4		P.L.D = 0.3		NCC-GP07-SB	10:10		
	5	SPLIT SPOON REFUSAL			NCC-GP07-C	12/40 50/03		
	6	WEATHERED SHALE				10:16		
	7		P.L.D = 0.3		NCC-GP08-D	2/1/50 50/24	50% Rec	
	8					10:24		

PROJECT HUDSON RIVER PCB FACILITY SITING

HOLE NO. NCC-GT02



HTRW DRILLING LOG (Continuation Sheet)							Hole Number NCC-6702	
Project NYS CANAL Corp/ALCO/LEGISL				Inspector Tom Nickerson		Sheet 5 of 10		
Elevation (A)	Depth (B)	Description of Materials (C)	Field Screening Results (D)	Geotech Sample or Core Box No. (E)	Analytical Sample No. (F)	Blow Count (G)	Remarks (H)	
9.70		WEATHERED BLACK SHALE	pid = 0.25	N/A	NCC-6702-E 11:31	50 0	75% Lithology	
10			pid = 1.3		NCC-6702-F 11:40	50 0.3	50%	
11	Bottom of Hole: 11.0' BGS							
12								
13								
14								
15								
16								

PROJECT Hudson River PCB Facility Study

HOLE NO. NCC-6702



# Borehole Record for NCC-G703

- HTRW Drilling Log
- Narrative Lithologic Description and Well Construction Diagram
- Well Development Record
- Well Development -- Parameter Measurements
- Groundwater Purge and Sampling Log
- Investigation - Derived Waste Inventory Sheet



<b>HTRW DRILLING LOG</b>		District KANSAS CITY	Hole Number NCC-6703
1. Company Name SAFETY AND ENVIRONMENT INC		2. Drill Subcontractor NORTHSTAR / Geologic	Sheet 1 of 10
3. Project NYS CANAL ROAD / AIC / LEGION		4. Location ARMOON, NY	
5. Name of Driller STEVE LARAMIE		6. Manufacturer's Designation of Drill CME-45C	
7. Sizes and Types of Drilling and Sampling Equipment 4 1/4" ASA 2" X 24" SPLIT SPINDLES		8. Hole Location NYS CANAL ROAD, CORNER PART 1	
		9. Surface Elevation	
		10. Date Started 10/9/03	11. Date Completed 10/9/03
12. Overburden Thickness 226'		15. Depth Groundwater Encountered	
13. Depth Drilled Into Rock 0		16. Depth to Water and Elapsed Time After Drilling Completed @ 17.7'	
14. Total Depth of Hole 26'		17. Other Water Level Managements (Specify)	
18. Geological Samples		Disturbed 0	Undisturbed 13
19. Total Number of Core Boxes 0			
20. Samples For Chemical Analysis		VOC 0	Metals 0
		Other (Specify) 0	Other (Specify) 0
21. Disposition of Hole		Backfilled X	Monitoring Well 0
		Other (Specify)	23. Signature of Inspector Jim MacPerson
<b>LOCATION SKETCH/COMMENTS</b>		SCALE: NOT TO SCALE	
<b>PROJECT</b> HUDSON RIVER PCB FACILITY SITING		<b>HOLE NO.</b> NCC-6703	

Site 2d: 10

	Lock Number _____	
<b>SCREENED WELL</b>	Inner Casing Material _____	<b>OPEN-HOLE WELL</b>
Stick-up _____ ft  Top of Grout _____ ft  Top of Seal at _____ ft  Top of Sand Pack _____ ft  Top of Screen at _____ ft  Bottom of Screen at _____ ft  Bottom of Hole at _____ ft  Bottom of Sandpack at _____	Inner Casing Inside Diameter _____ inches  <b>GROUND SURFACE</b>  Quantity of Material Used: Bentonite Pellets _____  Cement _____  Borehole _____ inches Diameter  Cement/Bentonite _____  Grout _____  Screen Slot Size _____  Screen Type _____ <input type="checkbox"/> PVC _____ <input type="checkbox"/> Stainless Steel _____  Pack Type/Size: <input type="checkbox"/> Sand _____ <input type="checkbox"/> Gravel _____ <input type="checkbox"/> Natural _____	Stick-up _____ ft  Inner Casing Material _____  Inner Casing Inside Diameter _____ inches  Outer Casing Diameter _____ inches  Borehole Diameter _____ ft  Bedrock _____ ft  Bottom of Rock Socket/Outer Casing _____ ft  Bottom of Inner Casing _____ ft  Corehole Diameter _____  Bottom of Corehole _____ ft

NOTE: See pages 136 and 137 for well construction diagrams

- Borehole DRILLED FOR GEOTECHNICAL PURPOSES ONLY, NO well CONSTRUCTION
- Samples Collected for Continuous moisture profiling
- Sample collected from the 4'-6' depth interval; NCC-GT03C- at 08:50; will submit for PARTICLE SIZE AND ATTERBURG LIMITS, IN ADDITION TO MOISTURE CONTENT ANALYSIS
- All Breathing zone TVA-100c READINGS were < 1 ppm

HTRW DRILLING LOG (Continuation Sheet)							Hole Number
Project		Inspector					NCC-G703
NYS CWM (GND) / HRC / LEGONE		Tom Nickerson					Sheet 3 of 6
Elevation (A)	Depth (B)	Description of Materials (C)	Field Screening Results (D)	Geotech Sample or Core Box No. (E)	Analytical Sample No. (F)	Blow Count (G)	Remarks (H)
	1	OL GM ↓	FID = 0.1 PID = 0.1	NCC-G703-A 0841	N/A	3/4/3/2	50% Rec.
	2	WEATHERED SHALE / GW	PID = 0 FID = 0	NCC-G703-B 0847		2/2/2/7	60% Rec.
	3	GW/GM ↓					
	4	GM ↓					
	5	GM ↓	PID = 0.5 FID = 1.1	NCC-G703-C 0850		6/1/2/2	20% Rec.
	6	GM ↓					
	7	↓	PID = 0.2 FID = 0	NCC-G703-D 0859		2/2/2/3	50% Rec.
	8	↓					

PROJECT Hudson River PCB FACILITY SITING

HOLE NO. NCC-G703



**HTRW DRILLING LOG** (Continuation Sheet)

Project: NYS Canal Corp / Mile 10.2 Inspector: Jon Nilkerson Hole Number: NCC-6-T03  
Sheet: 5 of 10

Elevation (A)	Depth (B)	Description of Materials (C)	Field Screening Results (D)	Geotech Sample or Core Box No. (E)	Analytical Sample No. (F)	Blow Count (G)	Remarks (H)
	9	Gm	PID = 0.2 FID = 0.3	NCC-6-T03-E 0900	N/A	1/2/2/2	60% Rec
	10		PID = 0.3 FID = 0.51	NCC-6-T03-F 0915		1/4/3/3	20%
	11						
	12		PID = 0.35 FID = 0.4	NCC-6-T03-G 0917		6/5/7/4	60%
	13						
	14		PID = 0.9 FID = 0.15	NCC-6-T03-H 0923		1/23/4/12	15%
	15						
	16						

PROJECT: Hudson River PCB Facility Siting HOLE NO.: NCC-6-T03



HTRW DRILLING LOG (Continuation Sheet)							Hole Number NCC-6703
Project N4 S CANAL CAP/MISC/VEGETATION			Inspector Jon Nickerson			Sheet 7 of 10	Sheets
Elevation (A)	Depth (B)	Description of Materials (C)	Field Screening Results (D)	Geotech Sample or Core Box No. (E)	Analytical Sample No. (F)	Blow Count (G)	Remarks (H)
	17	G-m ↓ CL	PI0 = 0.3 FI0 = 0.3 0932	NCC-6703-I 0932	N/A	4/24/5	15 30% Rec
	18	m2 ↓	PI0 = 1.4 FI0 = 1.4	NCC-6703-I 0940		1/1/2/3	95% Rec
	19	off m2 ↓	PI0 = 0.35 FI0 = 1.4	NCC-6703-K 0931		6/04/11 4/14	90% Rec
	20	SP ↓	PI0 = 0.65 FI0 = 0.7	NCC-6703-L 1004		10/10/8/3	85% Rec
	21	GM ↓					
	22						
	23						
	24						

PROJECT Anderson River PCB FACILITY SITING

HOLE NO. NCC-6703

Depth(feet).	NARRATIVE LITHOLOGIC DESCRIPTION	Moisture Content		
		Dry	Moist	Wet
	Continued wet uses silt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17.6	Abrupt change to a gravel clay silt. Black, clasts rounded, up to 0.5 cm in length moist mod. plasticity, med cohesion, soft	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18.1	Gravel to <sup>clay</sup> silt of v.f. sand, black	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20.3	Becomes more silt/clay; light tan organic to 2% (peat-est)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Water @ 21.7' BGS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21	Well-sorted coarse sand, saturated, well rounded grains, no fines, saturated.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
		<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
		<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
		<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
23.1	Gravel/silt/sand, saturated brown, well rounded clasts of all sizes, clasts to 2 cm in diameter	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
		<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
		<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
		<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>



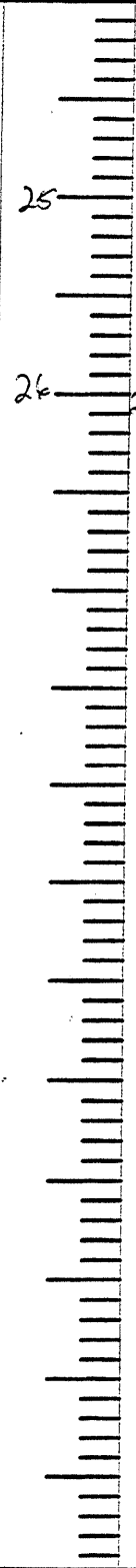
# HTRW DRILLING LOG (Continuation Sheet)

Hole Number

Project  
NUG CANAL CAP / AUG / 1994

Inspector  
Tom Nickerson

NCC-6703  
Sheet 9 of 10  
Sheets

Elevation (A)	Depth (B)	Description of Materials (C)	Field Screening Results (D)	Geotech Sample or Core Box No. (E)	Analytical Sample No. (F)	Blow Count (G)	Remarks (H)
		GM	PD = 0.75 RD = 0.6	NCC-6703 M 10.16	N/A	5/14/20 26	80% Res
Bottom of Hole: 26.0 Feet							

PROJECT  
HOODSON RIVER PCB FACILITY SITING

HOLE NO.  
NCC-6703



**New York State Canal Corporation/Allco/Leyerle Site**  
**Supplemental Geotechnical Information**

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TABLE 1  
SUMMARY

PROJECT: HUDSON RIVER PCB FACILITY SITING PROJECT

FILE NO.: 0204

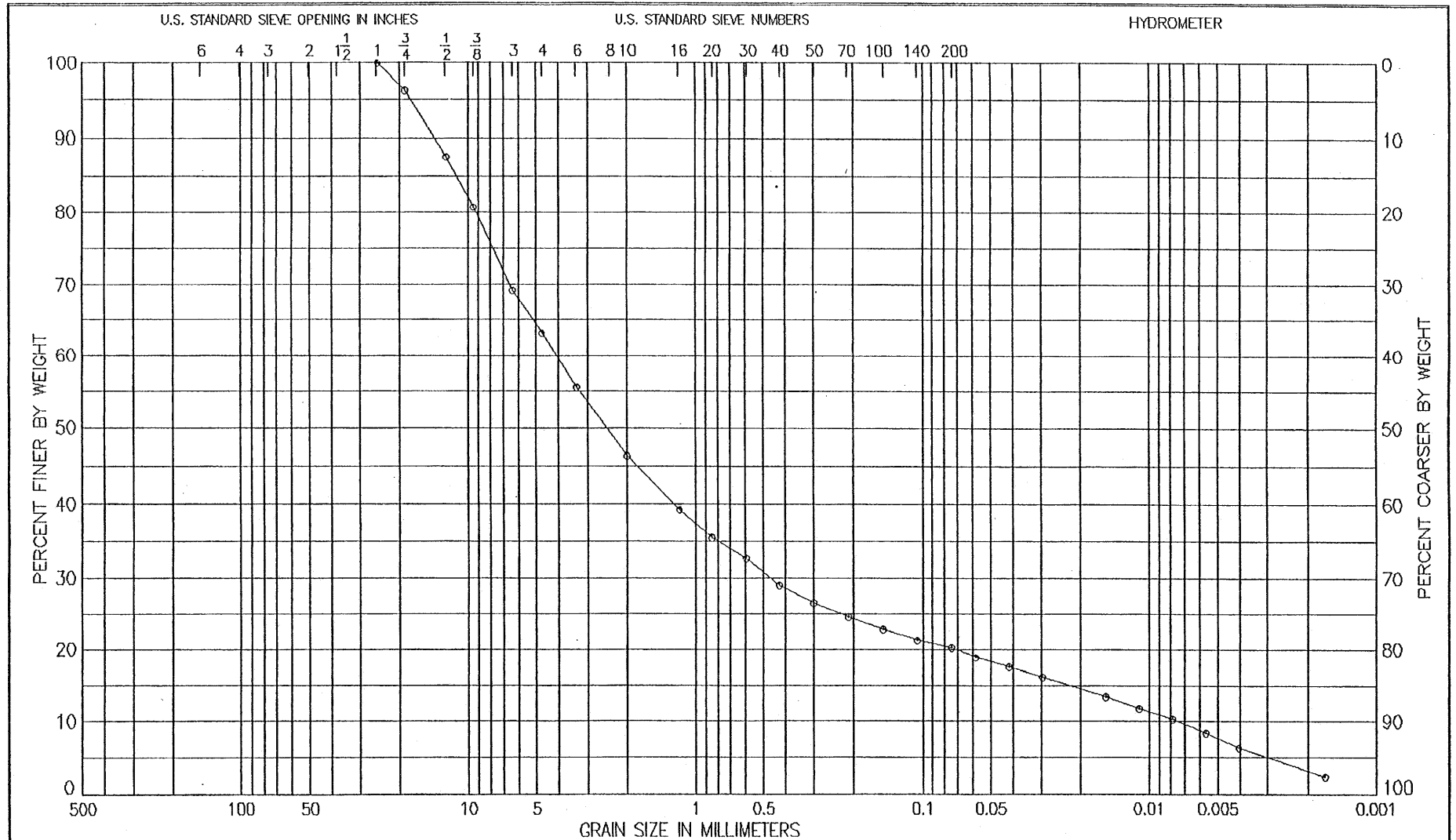
DATE:

CLASSIFIED BY: AT AND LDD

LOCATION OR BORING	SAMPLE NO.	ELEV. OR DEPTH	LL/PL	SAMPLE DESCRIPTION	NAT. W. C. %
NCC-GT01	A	0-2	66/35	GRAVELLY SILTY SAND (SM), GRAY	28.5
NCC-GT02	A	0-2			6.8
NCC-GT02	B	2-4	24/17	GRAVELLY CLAYEY SAND (SP-SC), GRAY	5.0
NCC-GT02	C	4-6			5.1
NCC-GT02	D	6-8			4.3
NCC-GT02	E	8-10			3.7
NCC-GT02	F	10-12			4.5
NCC-GT03	A	0-2			3.6
NCC-GT03	B	2-4			3.7
NCC-GT03	C	4-6	NP	GRAVELLY SILTY SAND (SW-SM), GRAY	4.7
NCC-GT03	D	6-8			4.8
NCC-GT03	E	8-10			5.6
NCC-GT03	F	10-12			6.7
NCC-GT03	G	12-14			2.7
NCC-GT03	H	14-16			4.7
REMARKS:					



B-369



COBBLES	GRAVEL		SAND			SILT or CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

LL 66	PL 35	PI 31	GS 2.40 EST	NAT W,% 28.5	ORG,%	PROJECT HUDSON RIVER PCB FACILITY SITING
CLASSIFICATION GRAVELLY SILTY SAND (SM), GRAY INSUFFICIENT SAMPLE FOR ACCURATE GRADATION						PROJECT
GRADATION CURVE						LABORATORY USAE WES - STF/GL
BORING NO. NCC-GT01		SAMPLE NO. A		DEPTH/ELEV 0-2		
DATE 06 NOV 03						

SIEVE ANALYSIS

PROJECT: HUDSON RIVER PCB FACILITY SITING  
PROJECT

BORING: NCC-GT01      SAMPLE: A      DF: 0204      .DAT  
DEPTH: 0-2      DATE: 06 NOV 03

LL: 66    PL: 35    PI: 31    GS: 2.40 est    WC: 28.50  
CLASSIFICATION: 270  
GRAVELLY SILTY SAND (SM), GRAY

TOTAL WEIGHT OF SAMPLE: 807.0 gms.  
PARTIAL WEIGHT AFTER SPLIT: 54.4 gms.  
INSUFFICIENT SAMPLE FOR ACCURATE GRADATION

WEIGHTS gm.	SIEVE SIZE or NUMBER	OPENING mm	PERCENT FINER	PERCENT COARSER
.0	1 in	25.000	100.0	.0
30.1	3/4 in	19.100	96.3	3.7
69.8	1/2 in	12.500	87.6	12.4
55.7	3/8 in	9.500	80.7	19.3
92.4	No 3	6.350	69.3	30.7
48.9	No 4	4.750	63.2	36.8
61.7	No 6	3.350	55.6	44.4
75.0	No 10	2.000	46.3	53.7
8.2	No 16	1.180	39.3	60.7
12.6	No 20	.850	35.6	64.4
15.9	No 30	.600	32.7	67.3
20.2	No 40	.425	29.1	70.9
23.1	No 50	.300	26.6	73.4
25.5	No 70	.212	24.6	75.4
27.6	No 100	.150	22.8	77.2
29.4	No 140	.106	21.3	78.7
30.6	No 200	.075	20.2	79.8

HYDROMETER:

RDGS	TEMP			
12.9	23.0	.0585	19.0	81.0
12.0	23.0	.0417	17.6	82.4
11.0	23.0	.0297	16.2	83.8
9.1	23.0	.0156	13.4	86.6
8.0	23.0	.0111	11.8	88.2
6.9	23.5	.0079	10.4	89.6
5.6	23.5	.0057	8.5	91.5
4.2	23.5	.0041	6.4	93.6
1.4	23.5	.0017	2.3	97.7

PERCENT GRAVEL = 36.8  
PERCENT SAND = 43.0  
PERCENT FINES = 20.2

EDE



SIEVE ANALYSIS

PROJECT: HUDSON RIVER PCB FACILITY SITING  
PROJECT

BORING: NCC-GT02      SAMPLE: B      DF: 0204      .DAT  
DEPTH: 2-4      DATE: 06 NOV 03

LL: 24    PL: 17    PI: 7    GS: 2.70 est    WC: 5.00  
CLASSIFICATION: 288  
GRAVELLY CLAYEY SAND (SP-SC), GRAY

TOTAL WEIGHT OF SAMPLE: 540.3 gms.  
PARTIAL WEIGHT AFTER SPLIT: 57.8 gms.

WEIGHTS gm.	SIEVE SIZE or NUMBER	OPENING mm	PERCENT FINER	PERCENT COARSER
.0	3/4 in	19.100	100.0	.0
4.7	1/2 in	12.500	99.1	.9
7.5	3/8 in	9.500	97.7	2.3
27.8	No 3	6.350	92.6	7.4
39.1	No 4	4.750	85.4	14.6
59.1	No 6	3.350	74.4	25.6
98.5	No 10	2.000	56.2	43.8
12.7	No 16	1.180	43.8	56.2
21.0	No 20	.850	35.8	64.2
27.0	No 30	.600	29.9	70.1
34.5	No 40	.425	22.7	77.3
38.6	No 50	.300	18.7	81.3
41.1	No 70	.212	16.2	83.8
43.1	No 100	.150	14.3	85.7
44.7	No 140	.106	12.7	87.3
45.7	No 200	.075	11.8	88.2

HYDROMETER:

RDGS	TEMP			
5.3	23.0	.0565	8.3	91.7
5.2	23.0	.0400	8.2	91.8
5.0	23.0	.0283	7.9	92.1
4.3	23.0	.0147	6.8	93.2
4.0	23.0	.0104	6.3	93.7
3.1	23.5	.0074	5.1	94.9
2.7	23.5	.0053	4.5	95.5
2.1	23.5	.0037	3.6	96.4
1.0	23.5	.0015	1.9	98.1

PERCENT GRAVEL = 14.6  
PERCENT SAND = 73.6  
PERCENT FINES = 11.8

D60 = 2.28  
D30 = .60  
D10 = .02  
CU = 121.54  
CC = 8.47

EDE





SIEVE ANALYSIS

PROJECT: HUDSON RIVER PCB FACILITY SITING  
PROJECT

BORING: NCC-GT03      SAMPLE: C      DF: 0204      .DAT  
DEPTH: 4-6      DATE: 06 NOV 03

NON-PLASTIC      GS: 2.67 est      WC: 4.70  
CLASSIFICATION: 306  
GRAVELLY SILTY SAND (SW-SM), GRAY

TOTAL WEIGHT OF SAMPLE: 842.6 gms.  
PARTIAL WEIGHT AFTER SPLIT: 56.7 gms.

WEIGHTS gm.	SIEVE SIZE or NUMBER	OPENING mm	PERCENT FINER	PERCENT COARSER
.0	3/4 in	19.100	100.0	.0
13.0	1/2 in	12.500	98.5	1.5
44.8	3/8 in	9.500	93.1	6.9
90.7	No 3	6.350	82.4	17.6
66.4	No 4	4.750	74.5	25.5
84.5	No 6	3.350	64.5	35.5
117.6	No 10	2.000	50.5	49.5
12.0	No 16	1.180	39.8	60.2
19.2	No 20	.850	33.4	66.6
24.5	No 30	.600	28.7	71.3
31.2	No 40	.425	22.7	77.3
35.6	No 50	.300	18.8	81.2
39.0	No 70	.212	15.8	84.2
41.8	No 100	.150	13.3	86.7
44.0	No 140	.106	11.3	88.7
45.4	No 200	.075	10.1	89.9
HYDROMETER:				
RDGS	TEMP			
5.0	23.0	.0572	7.3	92.7
4.2	23.0	.0407	6.1	93.9
4.0	23.0	.0288	5.8	94.2
3.1	23.0	.0150	4.6	95.4
2.9	23.0	.0106	4.3	95.7
2.0	23.5	.0075	3.1	96.9
2.0	23.5	.0053	3.1	96.9
1.1	23.5	.0038	1.9	98.1
.2	23.5	.0016	.6	99.4

PERCENT GRAVEL = 25.5  
PERCENT SAND = 64.4  
PERCENT FINES = 10.1

D60 = 2.92  
D30 = .67  
D10 = .07  
CU = 39.78  
CC = 2.10

EDE