



Steven P. Stucker
Senior Environmental Engineer

RECEIVED

August 15, 2007

AUG 20 2007

For: Mr. Anthony Karwiel
From: Steven P. Stucker, Senior Environmental Engineer

Mr. Anthony Karwiel
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau C
625 Broadway
Albany, NY 12233-7013

**Re: *National Grid Hudson Water Street Site
Hudson, New York
Static Water Level Evaluation and Ground Water Monitoring Program Recommendation
Memorandum***

Dear Tony:

Attached for your information is a memorandum (CDM, July 30, 2007) that details recent OM&M activities and subsequent ground water monitoring program evaluation associated with the National Grid Hudson Water Street Site. In accordance with the NYSDEC-approved OM&M Plan (BBL/ARCADIS, January 2007), at least two static water level measurement events were required to evaluate site ground water flows and recommend appropriate monitoring wells for inclusion within the annual ground water monitoring program.

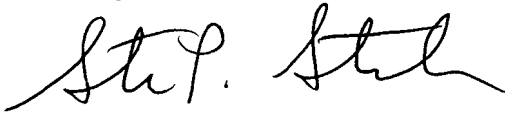
The OM&M Plan anticipated MW-03, MW-05, MW-06, and MW-11 as the four site ground water monitoring wells that would most appropriately document the site remedy. The attached memorandum confirms that these wells be utilized.

CDM, on behalf of National Grid, plans to conduct the first annual ground water monitoring event at the site during the week of August 13th. Sampling and analysis will be conducted in accordance with the NYSDEC-approved OM&M Plan, and an annual ground water monitoring report, including validated data, will be submitted to NYSDEC.

As you may be aware, I have assumed responsibility for administration of the OM&M Plan for the site. If you have any questions on the site O&M program, then please feel free to contact me at 315-428-5652.

August 9, 2007
Page 2 of 2

Sincerely,

A handwritten signature in black ink, appearing to read "St. P. Stucker", written in a cursive style.

Steven P. Stucker
Senior Environmental Engineer
Environmental Department

Attachments

Cc: Terry Young – NG
Matt Millias – CDM
Tim Beaumont – CDM



Memorandum

To: Steven P. Stucker, CPG

From: Matthew D. Millias, P.E.
Lauren M. Crocker, E.I.T.

Date: July 30, 2007

Subject: NG Hudson Water Street Site
Groundwater Monitoring Program Evaluation

In accordance with the Operation, Maintenance, and Monitoring (OM&M) Plan (ARCADIS/BBL, January 2007) for the National Grid Hudson Water Street Site (the site) located in Hudson, New York, the following activities are required as part of the OM&M program:

- Annual site inspections (for 5 years) including the existing groundwater monitoring wells [MW-02, MW-03, MW-05, MW-06, MW-07, MW-08A, MW-09A, MW-10, MW-11, OW-2, OW-4], three existing DNAPL monitoring wells [RW-1, RW-2, CW-01A], security fencing, and other site features.
- Quarterly DNAPL monitoring (for at least one year) from RW-1, RW-2, and CW-01A. Collection and off-site disposal of DNAPL, if present.
- Develop the following groundwater monitoring wells: MW-02, MW-03, MW-05, MW-06, MW-07, MW-08A, MW-09A, MW-10, MW-11, OW-2, and OW-4.
- At least two rounds of static water level measurements from MW-02, MW-03, MW-05, MW-06, MW-07, MW-08A, MW-09A, MW-10, MW-11, OW-2, OW-4, and the Hudson River staging point to evaluate the site groundwater flows.
- Based on the site groundwater flow evaluation, recommendation of four existing groundwater monitoring wells for sampling/analysis. Note that the OM&M Plan currently suggests the following groundwater wells for annual monitoring: MW-03, MW-05, MW-06, and MW-11.
- Annual sampling (for 5 years) of four groundwater monitoring wells and analysis for BTEX and Naphthalene (EPA Method 8260).
- Annual reporting to NYSDEC summarizing the OM&M program.

This memorandum summarizes the activities conducted to date and recommends future actions related to the OM&M program.

Site Inspection

CDM conducted a site inspection on June 11, 2007. The site features and wells were generally in good shape. Three well covers were replaced (MW-05, MW-06, MW-07). The Hudson River static water measurement point was established with a chiseled square adjacent to the 8th railing post on top of the sheet pile wall.

Quarterly DNAPL Monitoring Event

CDM conducted the quarterly DNAPL monitoring event on June 11, 2007. RW-1, RW-2, and CW-01A were visually inspected and monitored down-well with an interface probe. There was a slight fuel odor in CW-01A, but no DNAPL was present in any of the three wells. A summary table is presented in Attachment A.

Well Development

On June 20-21, 2007 under the supervision of CDM, Parratt-Wolff Drillers developed the following site wells: MW-02, MW-03, MW-05, MW-06, MW-07, MW-08A, MW-09A, MW-10, MW-11, OW-2, and OW-4. Water was contained within two NYSDOT-approved drums. The drums were labeled and staged on-site. A composite water sample was collected and sent to STL for analysis of BTEX, Napthalene, and RCRA metals. Analytical results indicated no detections for BTEX or Napthalene. Barium was detected below the NYS Drinking Water Standard. Attachment B presents the laboratory analytical data.

Based on the analytical results, the collected water is not contaminated and does not require off-site disposal. The water can be returned to the site ground surface.

Static Water Level Measurement Events

Four static water level measurement events were conducted from MW-02, MW-03, MW-05, MW-06, MW-07, MW-08A, MW-09A, MW-10, MW-11, OW-2, and OW-4:

- June 11, 2007 (prior to well development)
- June 20-21, 2007 (immediately prior and immediately following well development)
- June 26, 2007 (following recharge from well development)
- July 24, 2007

Mr. Steve Stucker
July 30, 2007
Page 3 of 3

Attachment C presents a summary static water level measurement table and individual event tables. Based on the data, groundwater flow figures were created for each static water level event. The figures are also included in Attachment C. Static water elevations have been shown in green next to each monitoring well. Equipotential lines have been shown for each static water level measurement event, also in green. The newly collected static water levels confirm the flow pattern found during the preparation of the OM&M Plan. The former Gas Holding Area is generally a water table high point. Groundwater flows to the west toward the Hudson River and in a southeasterly direction away from the form Gas Holding Area.

Therefore, MW-03, MW-05, MW-06 and MW-11 appear to be adequate for monitoring site groundwater in an effort to evaluate the site remedy. CDM agrees with the previous recommendation to utilize MW-03, MW-05, MW-06 and MW-11 as part of the annual groundwater sampling program.

ATTACHMENT A
QUARTERLY DNAPL MONITORING
EVENT (JUNE 11, 2007)

**Hudson Water Street
Hudson, New York**

Quarterly DNAPL Monitoring Event (June 11, 2007)

Well Id.	DTP	DTW	DTP	DTB	Thickness	Amount Recovered	Comments
CW-01A		2.12		30.90		0	slight odor. No DNAPL.
RW-1		3.60		26.50		0	No odor. No DNAPL.
RW-2		4.00		22.35		0	No odor. No DNAPL.

Comments:

**ATTACHMENT B
ANALYTICAL RESULTS –
DEVELOPMENT WATER (JULY 18, 2007)**

STL

STL Buffalo

10 Hazelwood Drive, Suite 106
Amherst, NY 14228

Tel: 716 691 2600 Fax: 716 691 7991
www.stl-inc.com

ANALYTICAL REPORT

Job#: A07-7272

Project#: NY7A9595

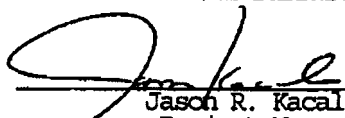
Site Name: Niagara Mohawk O & M

Task: Water Street

Timothy Beaumont
CDM

One General Motors Dr. STE 2
Syracuse, NY 13206

STL Buffalo



Jason R. Kacalski
Project Manager

07/18/2007

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

15/342

CAMP DRESSER AND MCKEE
 NIAGARA MOHAWK O & M
 METHOD 8260 - BTEX = NAPHTHALENE
 ANALYSIS DATA SHEET

Client No.

DRUM-0607

Lab Name: STL Buffalo

Contract: _____

Lab Code: REONY Case No.: _____ SAS No.: _____ SDG No.: _____Matrix: (soil/water) WATERLab Sample ID: A7727201Sample wt/vol: 5.00 (g/mL) MLLab File ID: G6916.RRLevel: (low/med) LOWDate Samp/Recv: 06/26/2007 06/28/2007% Moisture: not dec. _____ Heated Purge: NDate Analyzed: 07/06/2007GC Column: ZB-624 ID: 0.18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
71-43-2-----	Benzene		1.0	U
108-88-3-----	Toluene		1.0	U
100-41-4-----	Ethylbenzene		1.0	U
95-47-6-----	o-Xylene		1.0	U
-----	m/p-Xylenes		2.0	U
1330-20-7-----	Total Xylenes		3.0	U
91-20-3-----	Naphthalene		1.0	U

STL BUFFALO**Camp Dresser and McKee**

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: Camp Dresser and McKee

SDG No.: A07-7272

Method Type:

Sample ID: A7727201

Client ID: DRUM-0607

Matrix: WATER

Date Received: 6/28/2007

Date Collected: 6/26/2007

Level: LOW

% Solids:

Sample Wt/Vol: 50.0

Final Vol: 50.0

Prep Batch ID: A7B10368

Prep Date: 7/3/2007

Analyte	Concentration Units		C	Qual	RL	RL	Dil	Analytical		Instrument	Run	M
								Date	Time			
Arsenic	<	10.0 ug/L	U		10.0	10.0	1	7/3/2007	20:11	SUPERTRACE	1070307	P
Barium		271 ug/L			2.0	2.0	1	7/3/2007	20:11	SUPERTRACE	1070307	P
Cadmium	<	1.0 ug/L	U		1.0	1.0	1	7/3/2007	20:11	SUPERTRACE	1070307	P
Chromium	<	4.0 ug/L	U		4.0	4.0	1	7/3/2007	20:11	SUPERTRACE	1070307	P
Lead	<	5.0 ug/L	U		5.0	5.0	1	7/3/2007	20:11	SUPERTRACE	1070307	P
Selenium	<	15.0 ug/L	U		15.0	15.0	1	7/3/2007	20:11	SUPERTRACE	1070307	P
Silver	<	3.0 ug/L	U		3.0	3.0	1	7/3/2007	20:11	SUPERTRACE	1070307	P
Mercury	<	0.200 ug/L	U		0.200	0.200	1	7/3/2007	15:24:42	LEEMAN PS2	L20703W2	CV

Comments:

**ATTACHMENT C
STATIC WATER LEVEL
MEASUREMENTS**

SUMMARY TABLE

INDIVIDUAL EVENT TABLES

GROUNDWATER FLOW FIGURES

**Hudson (Water Street)
Static Water Level Measurements**

Well ID.	Top of Inner Casing (feet amsl)	Depth to Water (feet)				Water Level Elevation (feet amsl)			
		6/11/2007	6/20/2007	6/26/2007	7/24/2007	6/11/2007	6/20/2007	6/26/2007	7/24/2007
MW-02	6.10	4.37	4.15	5.15	4.31	1.73	1.95	0.95	1.79
MW-03	8.97	2.31	2.25	3.69	2.10	6.66	6.72	5.28	6.87
MW-05	12.57	5.90	5.80	6.87	5.75	6.67	6.97	5.70	6.82
MW-06	11.84	5.55	5.20	5.52	5.49	6.29	6.64	6.32	6.35
MW-07	8.94	5.10	4.85	5.08	5.40	3.84	4.09	3.86	3.54
MW-08A	6.36	3.47	2.90	3.85	3.74	2.89	3.46	2.51	2.62
MW-09A	8.40	5.48	5.25	5.56	5.29	2.92	3.15	2.84	3.11
MW-10	8.69	1.70	1.61	2.17	1.12	6.99	7.08	6.52	7.57
MW-11	9.57	2.80	2.81	3.12	2.94	6.77	6.76	6.45	6.63
OW-2	12.82	5.89	5.72	6.94	5.85	6.93	7.10	5.88	6.97
OW-4	12.66	5.52	5.33	6.00	5.48	7.14	7.33	6.66	7.18
Hudson River	5.29	4.45	3.10	4.75	4.80	0.84	2.19	0.54	0.49
CW-01A	9.67	2.12	n/a	n/a	n/a	7.55	n/a	n/a	n/a
RW-1	5.09	3.60	n/a	n/a	n/a	1.49	n/a	n/a	n/a
RW-2	4.96	4.00	n/a	n/a	n/a	0.96	n/a	n/a	n/a

Notes:

amsl Estimated elevation; well paved over during surveying but uncovered presently and can be monitored.
Above Mean Sea Level

						ACTUAL							
Well ID.	Sample?	Well Size	Well Material	Stickup-Flush	Install new Cap/Lock	DTP	DTW	DTP	DTB	DTB from Boring Logs	Screened from Boring Logs	Sumps from Boring Logs	Comments
MW-02		2"	PVC	Flush	lock		4.37		20.50	20.0	10.0-20.0		
MW-03		2"	PVC	Flush	lock		2.31		25.50	24.5	14.5-24.5		
MW-05		2"	PVC	Stickup	lock		5.90		28.10	26.5	16.5-26.5		Needs new 8 ¾" well cover
MW-06		2"	PVC	Stickup	lock		5.55		26.10	24.0	13.15-22.65	sump 22.65-24	Needs new 8 ¾" well cover
MW-07		2"	PVC	Stickup	lock		5.10		24.55	24.8	13.8-23.3	sump 23.3-24.8	Needs new 8 ¾" well cover. Silty bottom
MW-08A		2"	PVC	Flush	lock		3.47		25.85				
MW-09A		2"	PVC	Stickup	lock		5.48		25.07	24.1	13.1-22.65	sump 22.65-24.1	
MW-10		2"	PVC	Flush	lock		1.70		28.70	29.4	18.45-27.95	sump 27.95-29.4	
MW-11		2"	PVC	Flush	lock		2.80		8.10	8.0	2.5-7.0	sump 7.0-8.0	
OW-2		2"	PVC	Stickup	lock		5.09		27.55	25.4	15.7-25.2	sump 25.2-25.4	
OW-4		2"	PVC	Stickup	lock		5.52		28.05	25.8	16.1-25.6	sump 25.6-25.8	
Hudson River							4.45						Chiseled square adjacent to the 6th railing post on top of the sheetpile wall.
CW-01A		4"	Steel	Flush	lock		2.12		30.90	35.0	19.5-32.0	32.0-35.0	Slight odor. Silty bottom.
RW-1		4"	PVC	Flush	lock		3.60		26.50	27.0	10.0-25.0	25.0-27.0	
RW-2		4"	PVC	Flush	lock		4.00		22.35	27.0	5.0-25.0	25.0-27.0	

New locks installed: locks 15

Cut all old locks off and replaced with CDM, MC-2 locks. Including gate to fenced in area adjacent to brick warehouse.

Will verify all DTB after redevelopment of wells.

Recovery wells are not going to be re-developed but DTB will be verified.

OM&M manual missing page 1 of 2 of boring log for RW-2.

OM&M manual states MW-08A was cement/bentonite grouted and then moved north to location MW-08B. Maps only show MW-08A and no log for MW-08B is in the manual.??????

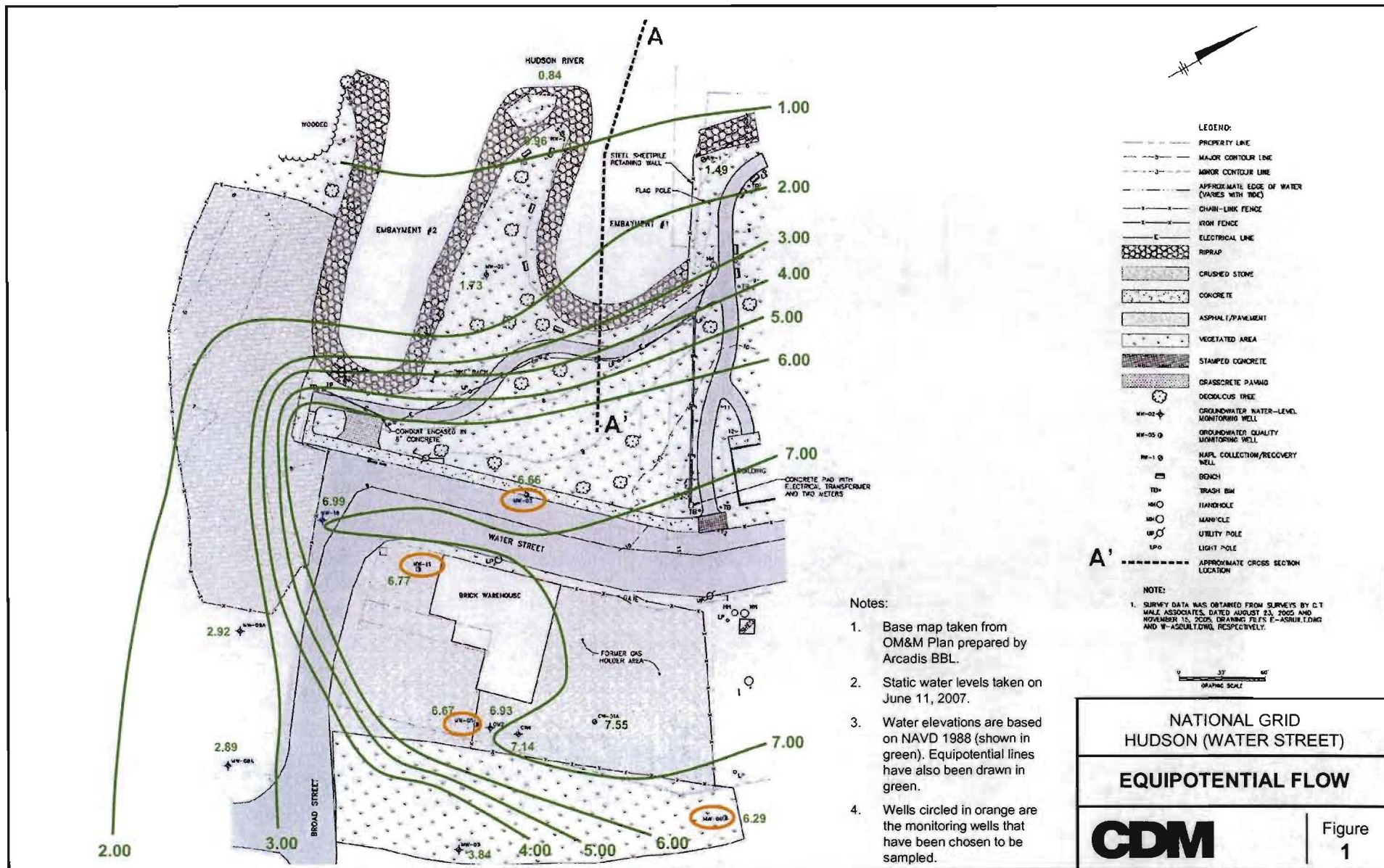
Well ID.	Well Size	Well Material	Stickup-Flush	DTP	DTW	DTP	DTB	Amount of Purging Time	Quantity of Water Purged	DTW after Purging	Comments
MW-02	2"	PVC	Flush		4.15		20.50	1 Hour	5 gal.	19.78	no odor, no sheen, brown to clear
MW-03	2"	PVC	Flush		2.25		25.50	1 Hour	10 gal.	24.25	no odor, no sheen, brown to clear
MW-05	2"	PVC	Stickup		5.60		28.10	1 Hour	10 gal.	26.60	no odor, no sheen, brown to clear
MW-06	2"	PVC	Stickup		5.20		26.10	1 Hour	5 gal.	24.81	no odor, no sheen, brown to clear
MW-07	2"	PVC	Stickup		4.85		24.55	1 Hour	10 gal.	24.01	no odor, slight sheen, brown to clear
MW-08A	2"	PVC	Flush		2.90		25.85	1 Hour	7 gal.	22.67	no odor, no sheen, brown to clear
MW-09A	2"	PVC	Stickup		5.25		25.07	1 Hour	5 gal.	23.65	no odor, no sheen, brown to clear
MW-10	2"	PVC	Flush		1.61		28.70	1 Hour	5 gal.	20.00	no odor, no sheen, brown to clear
MW-11	2"	PVC	Flush		2.81		8.10	1 Hour	15 gal.	2.91	odor, slight sheen, brown to clear
OW-2	2"	PVC	Stickup		5.72		27.55	1 Hour	10 gal.	26.45	no odor, no sheen, brown to clear
OW-4	2"	PVC	Stickup		5.33		28.05	1 Hour	10 gal.	11.80	no odor, no sheen, brown to clear
Hudson River					3.10						Chiseled square adjacent to the 8th railing post on top of the sheetpile wall.

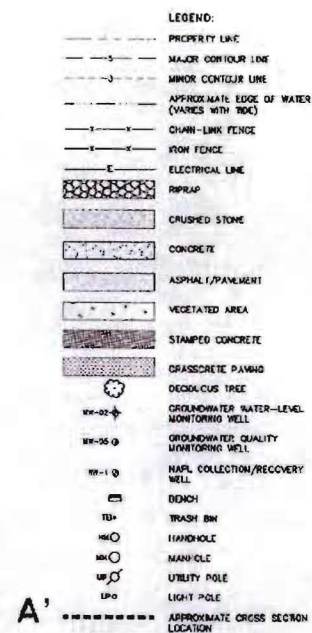
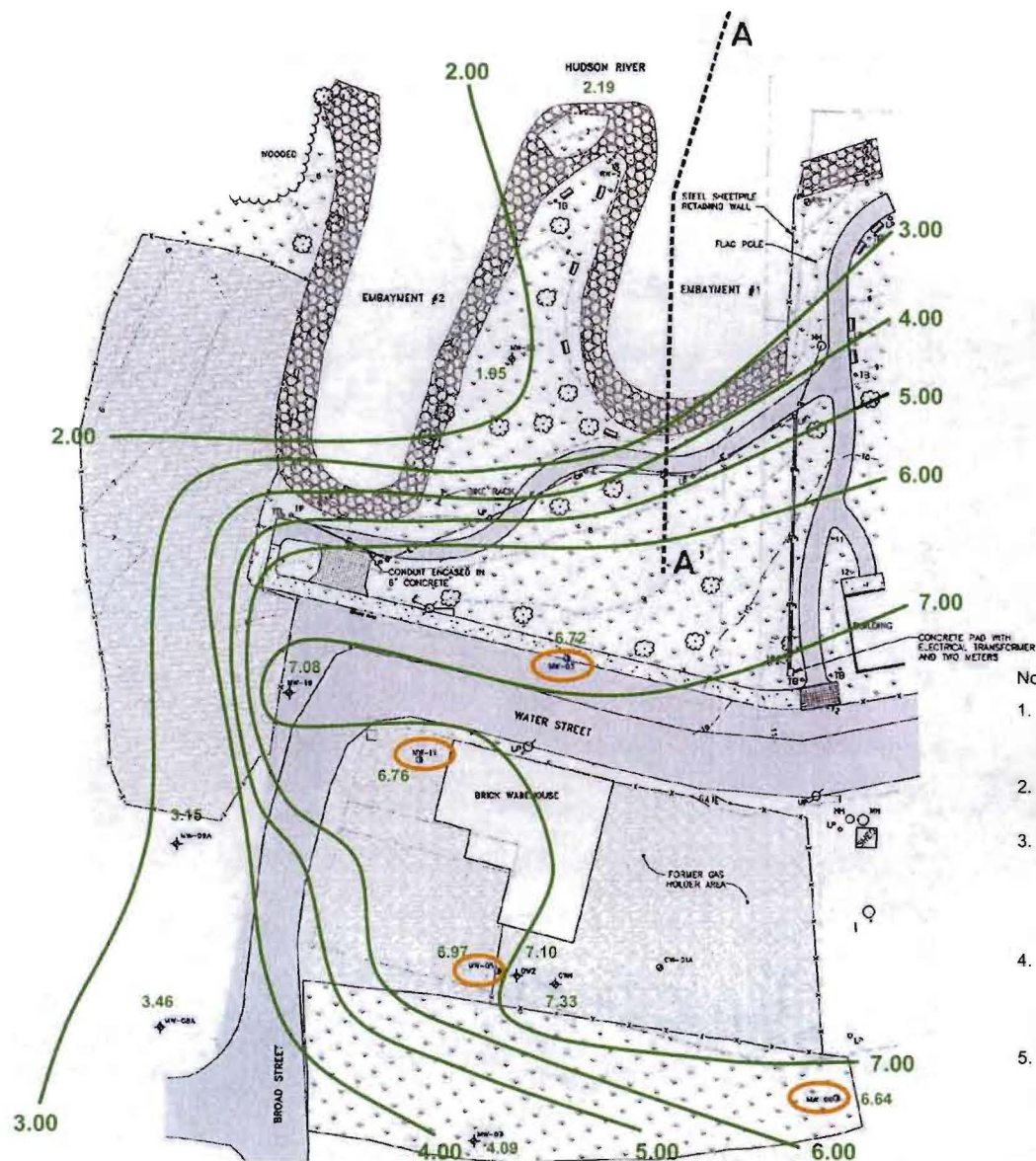
All purge water was placed in drums, labeled and staged inside the fenced in area next to the warehouse building.
Purge water was sampled on 6/26/2007.
New 8 3/4" well covers were installed on MW-05, MW-06 and MW-07.

Well ID.	Sample?	Well Size	Well Material	Stickup-Flush	DTP	DTW	DTP	DTB	Sump ?	Comments
MW-02		2"	PVC	Flush		5.15		20.50	No	
MW-03		2"	PVC	Flush		3.69		25.50	No	
MW-05		2"	PVC	Stickup		6.87		28.10	No	
MW-06		2"	PVC	Stickup		5.52		26.10	Yes	
MW-07		2"	PVC	Stickup		5.08		24.55	Yes	
MW-08A		2"	PVC	Flush		3.85		25.85	No	
MW-09A		2"	PVC	Stickup		5.56		25.07	Yes	
MW-10		2"	PVC	Flush		2.17		28.70	Yes	
MW-11		2"	PVC	Flush		3.12		8.10	Yes	
OW-2		2"	PVC	Stickup		6.94		27.55	Yes	
OW-4		2"	PVC	Stickup		6.00		28.05	Yes	
Hudson River						4.75				Chiseled square adjacent to the 8th railing post on top of the sheetpile wall.
CW-01A		4"	Steel	Flush		n/a		30.90	Yes	
RW-1		4"	PVC	Flush		n/a		26.50	Yes	
RW-2		4"	PVC	Flush		n/a		22.35	Yes	

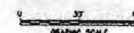
Sampled purge water drums.

Well ID.	Sample?	Well Size	Well Material	Stickup-Flush	DTP	DTW	DTP	DTB	Sump ?	Comments
MW-02		2"	PVC	Flush		4.31		20.50	No	
MW-03		2"	PVC	Flush		2.10		25.50	No	
MW-05		2"	PVC	Stickup		5.75		28.10	No	
MW-06		2"	PVC	Stickup		5.49		26.10	Yes	
MW-07		2"	PVC	Stickup		5.40		24.55	Yes	
MW-08A		2"	PVC	Flush		3.74		25.85	No	
MW-09A		2"	PVC	Stickup		5.29		25.07	Yes	
MW-10		2"	PVC	Flush		1.12		28.70	Yes	
MW-11		2"	PVC	Flush		2.94		8.10	Yes	
OW-2		2"	PVC	Stickup		5.85		27.55	Yes	
OW-4		2"	PVC	Stickup		5.48		28.05	Yes	
Hudson River						4.80				Chiseled square adjacent to the 8th railing post on top of the sheetpile wall.
CW-01A		4"	Steel	Flush		n/a		30.90	Yes	
RW-1		4"	PVC	Flush		n/a		26.50	Yes	
RW-2		4"	PVC	Flush		n/a		22.35	Yes	





NOTE:
1. SURVEY DATA WAS OBTAINED FROM SURVEYS BY C.Y. MALE ASSOCIATES, DATED AUGUST 23, 2002 AND NOVEMBER 15, 2005. DRAWING FILES E-ASRUE.TXD AND W-ASRUE.TXD, RESPECTIVELY.



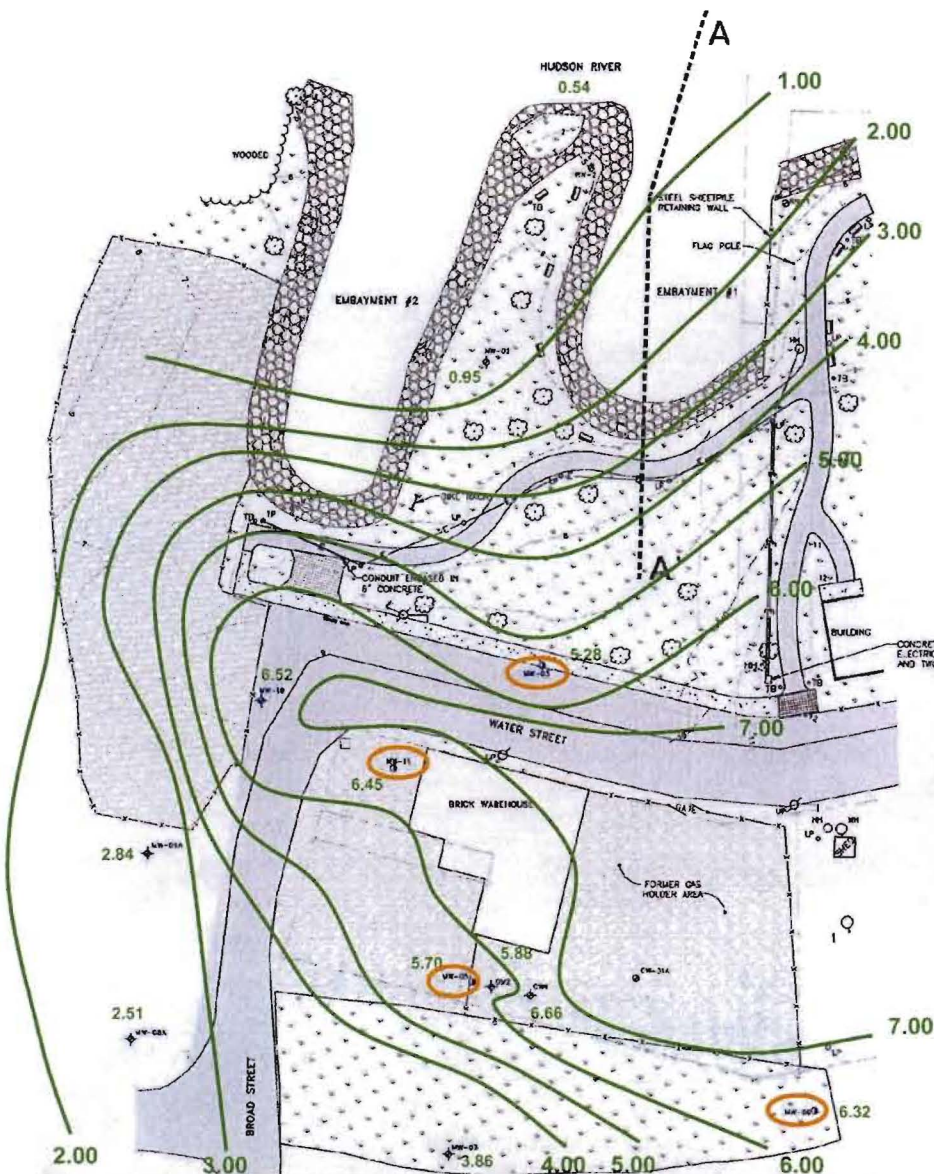
Notes:

1. Base map taken from OM&M Plan prepared by Arcadis BBL.
2. Static water levels taken on June 20, 2007.
3. Water elevations are based on NAVD 1988 (shown in green). Equipotential lines have also been drawn in green.
4. Wells circled in orange are the monitoring wells that have been chosen to be sampled.
5. CW-01A, RW-1 and RW-2 are DNAPL monitoring wells and are not included in the monitoring network per the OM&M plan.

NATIONAL GRID
HUDSON (WATER STREET)
EQUIPOTENTIAL FLOW

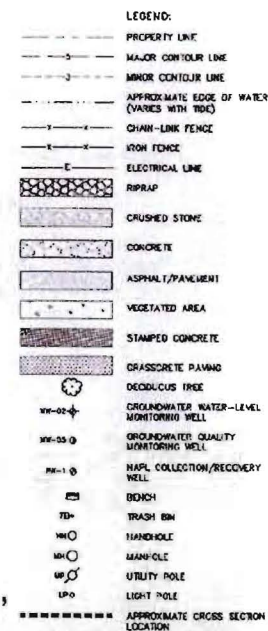
CDM

Figure
2



Notes:

1. Base map taken from OM&M Plan prepared by Arcadis BBL.
2. Static water levels taken on June 26, 2007.
3. Water elevations are based on NAVD 1988 (shown in green). Equipotential lines have also been drawn in green.
4. Wells circled in orange are the monitoring wells that have been chosen to be sampled.
5. CW-01A, RW-1 and RW-2 are DNAPL monitoring wells and are not included in the monitoring network per the OM&M plan.



NOTE:
1. SURVEY DATA WAS OBTAINED FROM SURVEYS BY C.T. MALE ASSOCIATES, DATED AUGUST 25, 2000 AND NOVEMBER 15, 2004. DRAWING PREPARED BY C.T. MALE AND B. ASEBULT, RESPECTIVELY.

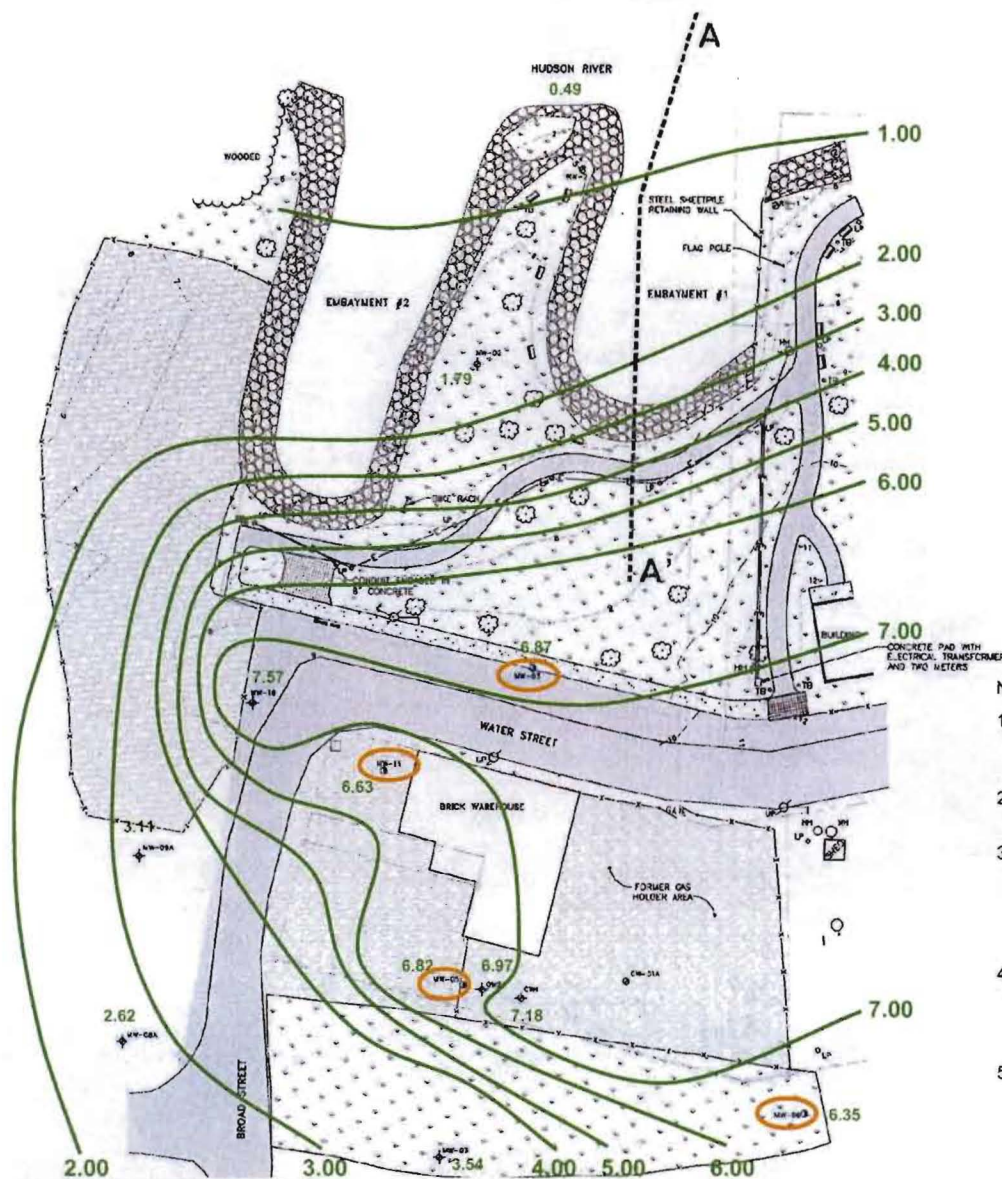
GRAPHIC SCALE

NATIONAL GRID
HUDSON (WATER STREET)

EQUIPOTENTIAL FLOW

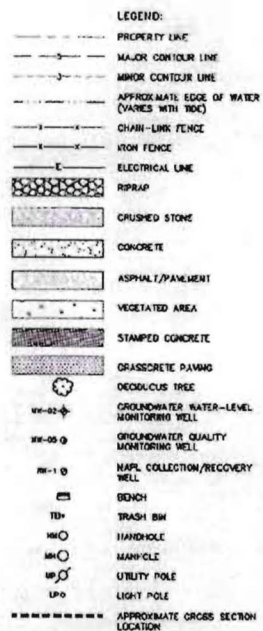
CDM

Figure
3



Notes:

1. Base map taken from OM&M Plan prepared by Arcadis BBL.
2. Static water levels taken on July 24, 2007.
3. Water elevations are based on NAVD 1988 (shown in green). Equipotential lines have also been drawn in green.
4. Wells circled in orange are the monitoring wells that have been chosen to be sampled.
5. CW-01A, RW-1 and RW-2 are DNAPL monitoring wells and are not included in the monitoring network per the OM&M plan.



NOTE:

1. SURVEY DATA WAS OBTAINED FROM SURVEYS BY C.T. MALE ASSOCIATES, DATED AUGUST 23, 2005 AND NOVEMBER 15, 2006. DRAWING JEFS E-ASRUR.T.DWG AND W-ASRUR.T.DWG, RESPECTIVELY.



NATIONAL GRID
HUDSON (WATER STREET)

EQUIPOTENTIAL FLOW

CDM

Figure
4