

**REPORT**

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***Data Report –  
2003 Land Investigation Activities***

**North Water Street Former MGP Site  
(Site No. 03-14-070)**

**Central Hudson Gas & Electric Corporation  
Poughkeepsie, New York**

**May 2004**

**BBL**<sup>®</sup>  
BLASLAND, BOUCK & LEE, INC.  
*engineers, scientists, economists*

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# **1. Introduction**

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Between November 3, 2003 and March 8, 2004, land investigation activities were conducted at the Central Hudson Gas & Electric Corporation (CHGE) North Water Street Former Manufactured Gas Plant (MGP) Site in Poughkeepsie, New York (the site; Figures 1 and 2). The purposes of the investigation were to evaluate the presence, thickness, and potential recoverability of non-aqueous phase liquids (NAPLs) within the overburden and bedrock adjacent Hudson River and along a portion of the site's northern property boundary. Investigation activities included the advancement of soil borings, installation of bedrock and overburden NAPL monitoring wells, installation of groundwater monitoring wells, NAPL monitoring, NAPL recovery testing, and groundwater-/river-level monitoring. These activities were conducted in accordance with a work plan that was submitted to the New York State Department of Environmental Conservation (NYSDEC) on September 29, 2003 and an October 16, 2003 letter from CHGE to the NYSDEC, which documented agreed upon scope changes to the September 29, 2003 work plan.

The remainder of this data report is divided into the following sections:

- Section 2 – Soil Borings;
- Section 3 – Well Installations;
- Section 4 – Well Development;
- Section 5 – NAPL Monitoring;
- Section 6 – NAPL Recovery Testing;
- Section 7 – Groundwater- and River-Level Monitoring;
- Section 8 – Equipment Cleaning;
- Section 9 – Waste Management;
- Section 10 – Surveying; and
- Section 11 – Site Observations.

Within each section, the scope, techniques, and findings of the various investigation activities are summarized. Tables, figures, and attachments are also included, and are referenced throughout the text.

## **2. Soil Borings**

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A total of 22 soil borings (SB-100 through SB-121) were advanced at the site between November 3 and 21, 2003. Of the 22 borings, 19 (SB-100 through SB-118) were installed adjacent the Hudson River, along the western boundary of the site. The remaining 3 borings (SB-119 through SB-121) were advanced in Dutchess Avenue, along the northern property boundary of the site. The locations of the soil borings are shown on Figure 3. As shown on Figure 3, the soil borings were spaced approximately 25 feet apart.

Prior to advancing the soil borings, public utilities were notified of the drilling activities through Dig Safely New York Ticket # 10273-028-081, and subsurface utilities present within the work areas were located and marked. Subsurface utilities associated with CHGE's propane plant and natural gas regulator station were located and marked by representatives of CHGE. Subsurface utilities located within the work area included a cathode protection system in the vicinity of boring locations SB-108 through SB-113, two main gas lines between boring locations SB-117 and SB-118 that cross under the Hudson River, a temporarily out of service gas line in the vicinity of boring location SB-108, and a storm sewer in Dutchess Avenue. In addition to locating subsurface utilities, a street opening permit was obtained from the City of Poughkeepsie prior to conducting drilling activities within Dutchess Avenue.

The soil borings were drilled by Parratt-Wolff, Inc. (Parratt-Wolff) of Syracuse, New York under the direction of an onsite Blasland, Bouck & Lee, Inc. (BBL) representative. A CME-55 drill rig with 4.25-inch diameter hollow-stem augers was used to advance the borings. Continuous soil samples were obtained at 2-foot intervals using 2-inch diameter split-spoon samplers. Recovered soils were visually characterized and screened with a photoionization detector (PID) by BBL. Observations of the recovered soils – including predominant soil types, presence of fill materials, moisture content, plasticity, presence of NAPL/sheens/odors, and PID readings – were recorded in the field notebook. Borings were advanced to the top of the underlying bedrock, which ranged in depth from 20.7 to 60.9 feet below ground surface (bgs). Borings were grouted upon completion unless casing installation was to immediately follow (see section below on installation of bedrock wells) to minimize the potential for downward migration of NAPLs.

Soil boring information – including boring ID, date installed, depth to bedrock, and intervals of observed impacts (e.g., odors, staining, sheens, and/or NAPLs) – are summarized in Table 1. A cross-section depicting the depths of soil/material types, NAPL-impacted intervals, and top of bedrock encountered at each soil boring

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location is provided as Figure 4. Soil boring logs used to prepare the cross-section are provided in Attachment 1.

## ***3. Well Installations***

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A total of 35 NAPL monitoring wells (21 bedrock and 14 overburden) and two overburden groundwater monitoring wells were installed at the site. The wells were installed by Parratt-Wolff between November 3 and December 19, 2003. The installa

### **3.1 Bedrock NAPL Monitoring Wells**

As indicated above, 21 bedrock NAPL monitoring wells were installed at the site (Figure 3). Installation of the bedrock NAPL monitoring wells was conducted in three phases. First, a CME-75 drill rig was used to drill two feet into bedrock with 8.25-inch diameter augers. Where possible, augers were advanced by overdrilling the previously installed soil boring locations. Continuous sampling of the overburden was not performed during drilling for the well installations. Following advancement of the augers, 6-inch diameter steel casing was set in the borehole, 2 feet into bedrock. The outside of the casing was then tremie grouted in place as the augers were withdrawn from the borehole. The grout was allowed to set at least 24 hours prior to the second phase of installation.

The second phase of installation consisted of drilling open bedrock coreholes at each location using fluid rotary drilling techniques. The bedrock drilling was performed using a CME-55 drill rig with a 5.875-inch diameter roller bit to depths of approximately 77 feet bgs. Drill cuttings (bedrock chips) and recirculation water were observed throughout the drilling; observations of odors, sheens, and/or NAPLs were recorded in the field notebook.

The third phase of installation consisted of constructing and installing sumps in each well, which was done following well development activities. The sumps were constructed of a 2-foot long (approximate), 4-inch diameter steel cylinder (enclosed at the bottom), fitted with a threaded rubber shale trap/formation packer at the top. Prior to installing the sumps, a calculated amount of grout was mixed and tremied to the bottom of the open bedrock corehole. Sumps were placed in the well and pushed into the bottom of the corehole using drill rods. As the sump reached the bottom of the corehole, the grout was displaced around the outside of the sump up to the bottom of the rubber shale trap/formation packer. The wells were completed at the surface with concrete pads and bolted flush-mount covers.

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Bedrock NAPL monitoring well specifications – including well ID, date steel casing installed, depth to bedrock, steel casing depth, date bedrock drilled, total depth, date sump installed, sump interval, and drilling notes/observations – are summarized in Table 2. Well construction diagrams are provided in Attachment 1.

### **3.2 Overburden NAPL Monitoring Wells**

Fourteen overburden NAPL monitoring wells were installed at selected locations where NAPL was observed in the overburden during the soil boring activities (Figure 3). The 14 wells included 13 6-inch diameter wells and one 2-inch diameter well.

The boreholes for the 6-inch diameter overburden NAPL monitoring wells were drilled using a CME-75 drill rig with 8.25-inch diameter augers. Because the monitoring wells were installed adjacent to previously advanced soil boring locations, continuous split-spoon sampling was not performed. After each borehole was advanced to the targeted depth, a 6-inch diameter flush-joint, schedule 40 PVC well assembly (solid riser pipe, 0.020-inch slotted screen, and sump) was placed into the borehole (sump construction and installation techniques are further discussed below). Screen intervals were generally selected to include the intervals where NAPL-impacted materials were observed in the soil borings. As the augers were removed from the borehole, a #2 silica sand pack was installed in the annular space beginning at the top of the sump and extending up to between 1 and 3 feet above the top of the well screen. A 2 to 3 foot bentonite seal consisting of hydrated bentonite chips was placed above the sand pack, and the remaining annular space was filled with a cement/bentonite grout to approximately 1 foot bgs. The wells were completed at the surface with concrete pads and bolted flush-mount covers.

As indicated above, each 6-inch diameter overburden NAPL monitoring well was completed with a 2-foot long (approximate) sump attached below the screened interval. The sumps were installed to collect dense, non-aqueous phase liquids (DNAPLs) that may enter the wells. As summarized below, three different methods were used to install the sumps, depending on the geologic material present at each location in which the sump was targeted to be set.

At well locations NMW-110S, NMW-112S, NMW-115S, NMW-116S, and NMW-117S, where NAPL and/or impacted materials were observed directly above a confining unit (e.g., silt/clay layer), sumps were installed as follows:

- 8.25-inch diameter augers were advanced into the top of the confining unit;



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- a 5.875-inch diameter roller bit was advanced in front of the augers an additional 2 feet into the confining unit;
  - the roller bit and associated rods were withdrawn from the augers; and
  - a 6-inch diameter well assembly including a 2-foot sump (with a shale trap/formation packer fitted around the top of the sump) were pushed into place so that the shale trap/formation packer sealed off the top of the confining unit.

At well locations NMW-106S, NMW-111S, and NMW-113S, where NAPL-impacted materials were observed at or near the overburden/bedrock interface, sumps were installed as follows:

- 8.25-inch diameter augers were advanced to the top of bedrock;
- a 7.875-inch diameter roller bit was advanced ahead of the augers, 2 feet into the underlying bedrock;
- the roller bit and associated rods were withdrawn from the augers;
- a calculated amount of grout was tremied to the bottom of the borehole; and
- a 6-inch diameter well assembly including a 2-foot sump (with a shale trap/formation packer fitted around the top of the sump) were pushed into place, such that the grout was displaced to surround the sump up to the bottom of the shale trap/formation packer.

At well locations NMW-104S, NMW-105S, NMW-107S, NMW-108S, and NMW-109S, where the sumps were not set into a confining layer or bedrock, sumps were installed as follows:

- 8.25-inch diameter augers were advanced to the targeted depth;
- a calculated amount of grout was tremied to the bottom of the borehole; and
- a 6-inch diameter well assembly including a 2-foot sump (with a shale trap/formation packer fitted around the top of the sump) were pushed into place, such that the grout was displaced to surround the sump up to the bottom of the shale trap/formation packer.

During the advancement of soil borings SB-101, SB-102, and SB-103, trace brown oil exhibiting a petroleum odor was observed. Therefore, to monitor for the potential presence of light, non-aqueous phase liquids (LNAPLs) in this area of the site, a 2-inch diameter well (NMW-102S) was installed at boring location SB-102. The borehole for NMW-102S was drilled using a CME-55 drill rig with 4.25-inch diameter augers. After the borehole was advanced to the targeted depth, a calculated amount of grout was tremied to the bottom of the borehole and a 2-inch diameter flush-joint, schedule 40 PVC well assembly (solid riser pipe, 0.020-inch slotted

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screen, and 2-foot long sump) was placed into the borehole. The grout was displaced up to the top of the sump and allowed to harden overnight. As the augers were removed from the borehole, a #2 silica sand pack was installed in the annular space beginning at the top of the sump and extending up to 1 foot above the top of the well screen. A 1.5 foot bentonite seal consisting of hydrated bentonite chips was placed above the sand pack. The well was completed at the surface with a concrete pad and bolted flush-mount cover.

Overburden NAPL monitoring well specifications – including well ID, date installed, casing diameter, total depth, screen interval, and sump interval – are summarized in Table 3. Well construction diagrams are provided in Attachment 1.

### **3.3 Overburden Groundwater Monitoring Wells**

In addition to the NAPL monitoring wells, two groundwater monitoring wells (MW-200 and MW-201) were installed at the site. These wells were installed to monitor groundwater quality at the north (MW-201) and south (MW-200) ends of the site adjacent to the Hudson River (Figure 3). The monitoring wells were drilled using a CME-55 drill rig with 4.25-inch diameter augers. Because the monitoring wells were installed adjacent to previously advanced soil boring locations, continuous split-spoon sampling was not performed. The wells were constructed of a 2-inch diameter flush-joint, schedule 40 PVC well assembly (solid riser pipe and 10-foot long, 0.020-inch slotted screen). As the augers were removed from the borehole, a #2 silica sand pack was installed in the annular space beginning at the well bottom and extending up to between 1 and 1.5 feet above the top of the well screen. A 1.5 foot bentonite seal consisting of hydrated bentonite chips was placed above the sand pack, followed by cement/bentonite grout to approximately 1 foot bgs. The wells were completed at the surface with concrete pads and bolted flush-mount covers.

Specifications for the two overburden groundwater monitoring wells – including well ID, date installed, casing diameter, total depth, and screen interval – are summarized in Table 3. Well construction diagrams are provided in Attachment 1.

## ***4. Well Development***

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Following installation, Parratt-Wolff developed each well to remove fine-grained materials that may have settled in or around the wells during installation, and to insure that the wells properly transmit groundwater/NAPL. The NAPL monitoring wells were developed using air lifting techniques. This method uses an air compressor to introduce air to the bottom of the well, forcing water and fine-grained materials up through hollow steel rods and out of the well casing. Groundwater monitoring wells MW-200 and MW-201, and overburden NAPL monitoring well NMW-102S were developed using an electric submersible pump to remove water and fine-grained materials from the well.

On January 19 and 20, 2004, BBL redeveloped wells NMW-102S, NMW-103D, NMW-104D, NMW-105D, NMW-105S, NMW-106D, NMW-107D, NMW-108D, NMW-108S, NMW-110S, NMW-111D, and NMW-113D to remove accumulations of fine-grained materials from the sumps. An inertial hydrolift pump (with tubing and a foot valve) and/or disposable bailers were used to redevelop these wells.

Table 4 summarizes information recorded during the well development activities, including date(s) developed, volume of water removed, and notes/observations.

## ***5. NAPL Monitoring***

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Five NAPL monitoring events (January 7/8, January 19/20, February 9/10, February 20, and March 8, 2004) were conducted by BBL to monitor accumulations of NAPL in the newly installed NAPL monitoring wells and existing monitoring wells. During each event, groundwater levels and NAPL thicknesses were measured with an oil/water interface probe and/or weighted measuring tape. Measurable NAPL accumulations were removed using an inertial hydrolift pump (with tubing and a foot valve) and/or disposable bailers. To quantify the volume of NAPL removed from each well, the removed NAPL/water mixture was allowed to settle, the water was decanted from the NAPL, and the remaining volume of NAPL was measured.

The NAPL monitoring data are summarized in Table 5. As indicated in Table 5, wells NMW-116S and NMW-117S are the only two wells in which NAPL accumulations have been observed. Measured NAPL thicknesses ranged from approximately 1.2 to 4.5 feet at NMW-116S and from approximately 4.0 to 11.0 feet at NMW-117S. NAPL removal volumes ranged from approximately 0.26 to 7 gallons at NMW-116S and from approximately 6 to 22 gallons at NMW-117S. The measured NAPL thicknesses and NAPL removal volumes for NMW-116S and NMW-117S are depicted graphically on Figure 5 and Figure 6, respectively.

## ***6. NAPL Recovery Testing***

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Between February 9 and 20, 2004, BBL conducted NAPL recovery testing at wells NMW-116S and NMW-117S to determine NAPL recovery rates. The tests consisted of measuring initial NAPL thickness, removing NAPL from the wells, and then periodically measuring NAPL thicknesses as NAPL re-entered the wells. This process was repeated twice at NMW-116S and four times at NMW-117S. During the two pumpings at NMW-116S, approximately 9 gallons of NAPL were removed. During the four pumpings at NMW-117S, approximately 19.5 gallons of NAPL were removed.

The NAPL recovery test data is presented in Table 6 (NMW-116S) and Table 7 (NMW-117S). In addition, the data is graphically depicted on Figure 7 (NMW-116S) and Figure 8 (NMW-117S).

## **7. Groundwater-Level and River-Level Monitoring**

During each of the five NAPL monitoring events, ground-water level measurements were obtained at each monitoring well by measuring the depth to water (from the top of the inner well casing) using an electric indicator probe. In addition, during the last three events, water-level measurements were also obtained for the Hudson River by measuring the depth to water from a surveyed point on a steel structure located approximately 290 feet south of well MW-200 (Figure 3).

The depth-to-water measurements and calculated groundwater/surface water elevations are summarized in Table 8.

## ***8. Equipment Cleaning***

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Drilling equipment (e.g., augers, roller bits, split-spoon samplers, etc.) was steam cleaned prior to initiating the drilling activities, in between each soil boring/well location, and at the completion of the project prior to leaving the site. All steam cleaning activities were conducted in an equipment cleaning pad (lined with multiple layers of 6 mil polyethylene sheeting) located on south of the existing propane storage tanks and retaining wall (Figure3). Split-spoon samplers were cleaned with an Alconox solution followed by a clean water rinse. As needed, a citrus cleaner/degreaser was used to remove NAPL from the drilling equipment.

## **9. Waste Management**

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Wastes generated during the investigation activities included soil cuttings/bedrock chips, groundwater, NAPL, disposable equipment/supplies, and personal protective equipment (PPE). These wastes were managed as follows:

- Soil cuttings/bedrock chips generated during the soil boring and well installation activities were placed into covered rolloff containers. A wooden containment box was placed around the augers and borehole to contain the cuttings brought to the surface to minimize the potential for contact with the ground surface.
- Groundwater and NAPL generated during the soil boring, well installation, well development, and equipment cleaning activities were placed into a 10,000-gallon frac tank.
- Groundwater generated during redevelopment of selected wells on January 19 and 20, 2004 was placed into a 500-gallon polyethylene storage container.
- NAPL and groundwater generated during NAPL monitoring and recovery testing was containerized in 5-gallon buckets.
- Disposable equipment/supplies and PPE generated during the investigation activities were containerized in 55-gallon drums and/or garbage bags.

The above-referenced waste materials were subject to characterization and appropriate disposal by CHGE.



## ***10. Surveying***

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The locations of the newly installed wells were surveyed by Morris Associates of Poughkeepsie, New York. In addition, the ground-surface and top-of-inner-casing elevation at each well was surveyed. As indicated above, the measuring point elevation of a steel structure extending into the Hudson River was also surveyed for use in determining Hudson River surface water elevations.

The survey data is summarized in Table 9 and the surveyed well locations are shown on Figure 3.

# **11. Site Observations**

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Observations recorded during a low tide Hudson River shoreline reconnaissance and Dutchess Avenue sewer improvements are summarized below. Photographs of these activities are provided in Attachment 2.

## **11.1 Low Tide Hudson River Shoreline Reconnaissance**

On November 14, 2003, representatives of BBL, CHGE, and the NYSDEC conducted a reconnaissance of the Hudson River shoreline adjacent to the site to observe shoreline conditions during low tide. During the reconnaissance, NAPL was observed within silty sand/gravel/cobble material at the edge of water, approximately 10 to 15 feet from the existing bulkhead/retaining wall, adjacent to soil boring locations SB-112 and SB-113 (Figure 3).

In addition to the NAPL observations, remains of a former wooden bulkhead were also observed during low tide conditions. The wooden bulkhead was located approximately 2 to 15 feet west of the existing bulkhead/retaining wall.

## **11.2 Dutchess Avenue Sewer Improvements**

In December 2003, the City of Poughkeepsie began improvements to the sewer line in Dutchess Avenue, including the installation of a new pump station. As part of the sewer line improvements, a trench (approximately 8 feet wide by 8 feet deep) was excavated in Dutchess Avenue, beginning approximately 230 feet east of the Hudson River and extending up to North Water Street (Figure 3). At the western end of the trench, a new pump station was installed; excavation for the pump station extended approximately 14 feet bgs. BBL and CHGE representatives observed the excavation activities associated with the sewer line improvements; no NAPL or other site-related impacts were observed.

# **Tables**

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Table 1

Central Hudson Gas & Electric Corporation  
 North Water Street Former MGP Site  
 Poughkeepsie, New York

Soil Boring Information

Boring ID	Date	Depth to Bedrock (ft)	Impacted Intervals (ft) <sup>1</sup>	NAPL Intervals (ft)	Comments
SB-100	Nov. 3	24.1	None	None	No impacted materials observed
SB-101	Nov. 5	20.7	8.0-18.8	8-11.1	Brown oil
SB-102	Nov. 5	25.8	6.0-16.9	12.8-13.2	Brown oil
SB-103	Nov. 18	34.4	8.0-24.6	10.0-16.6	Brown oil
SB-104	Nov. 7	24.8	8.0-24.5	8.0-21.5	Brown oil
SB-105	Nov. 18	27.7	6.0-26.2	8.0-25.1	Brown oil from 8.0-12.0; Dark brown to black oil from 12.0-25.1
SB-106	Nov. 7	26.9	4.5-4.9, 12.0-26.7	4.5-4.9, 12.0-20.5, 24.3-26.7	Wood containing NAPL from 4.5-4.9; Dark brown to black oil
SB-107	Nov. 19,20	31.3	5.0-29.9	5.0-12.5, 18.0-22.5	Brown oil
SB-108	Nov. 6	31.6	4.0-27.6	8.0-19.0	Dark brown to black oil
SB-109	Nov. 4	28.9	4.7-28.9	8.0-20.5	Dark brown to black oil
SB-110	Nov. 6	31.5	4.8-23.0	4.8-16.5, 20.0-23.0	Dark brown to black oil
SB-111	Nov. 10	29.8	4.2-11.0, 12.0-19.0, 22.0-29.4	6.4-11.0, 18.0-19.0, 28.0-29.4	Dark brown to black oil
SB-112	Nov. 11,12	34.2	0.5-1.8, 8.0-22.7, 32.7-34.2	10.5-22.7, 32.7-33.9	Dark brown to black oil
SB-113	Nov. 13	30.3	4.5-10.8, 14.0-15.0, 22.5-27.5	4.5-10.4, 22.5, 26.0-27.0	Dark brown to black oil
SB-114	Nov. 10,11	37.6	6.4-9.1	None	Wood with odor/sheen from 6.4-9.1
SB-115	Nov. 14	47.8	6.0-13.6, 34.0-34.4	8.0-11.0, 34.0-34.3	Dark brown to black oil
SB-116	Nov. 12	60.7	8.0-9.0, 36.3-36.9, 40.0-51.7	None	NAPL in slough at 44.0-50.0
SB-117	Nov. 17	60.9	4.0-11.1, 36.0-41.7	36.0-38.6	Red-brown oil
SB-118	Nov. 13,14	49.8	6.0-9.0	None	
SB-119	Nov. 19	53.5	6.0-7.1	None	
SB-120	Nov. 20	37.8	6.0-12.1	None	
SB-121	Nov. 21	34.8	6.8-12.7	None	NAPL (yellow-brown oil) in slough at 10.0-11.0

Notes:

1. Impacted materials include observations of odor, staining, sheens, and/or NAPLs.

Table 2

Central Hudson Gas & Electric Corporation  
North Water Street Former MGP Site  
Poughkeepsie, New York

## Bedrock Well Information

Well ID	Date 6" Steel Casing Installed	Depth to Bedrock (ft)	Steel Casing Depth (ft)	Date Bedrock Drilled	Total Depth (ft)	Date Sump Installed	Sump Interval (ft)	Drilling Notes/Observations
NMW-100D	Nov. 6	24.1	28.0	Nov. 18	77.0	Dec. 15	75.0-77.0	No odors, sheens, or NAPL observed in drilling water or cuttings
NMW-102D	Nov. 5	29.8	31.0	Nov. 24, 29	77.0	Dec. 16	75.0-77.0	No odors, sheens, or NAPL observed in drilling water or cuttings
NMW-103D	Dec. 10	34.4	36.5	Dec. 16, 17	77.0	Dec. 30	75.0-77.0	No odors, sheens, or NAPL observed in drilling water or cuttings
NMW-104D	Nov. 13	24.8	31.0	Nov. 25	77.5	Dec. 29	75.5-77.5	Trace sheens observed in drilling water at 36.0'; trace NAPL blebs and sheens observed in drilling water from 55.0-77.5'
NMW-105D	Dec. 10	27.7	33.5	Dec. 17, 18	77.0	Dec. 30	75.0-77.0	Trace sheens observed in drilling water at 42.0'
NMW-106D	Nov. 7	26.9	28.5	Nov. 26, Dec. 1	77.0	Dec. 12	73.0-75.0	Trace NAPL blebs and sheens observed in drilling water from 30.0-62.0'; zone of easy drilling from 44.0-45.0' (began losing significant water after this zone)
NMW-107D	Dec. 18	31.3	31.0	Dec. 19	77.0	Dec. 30	75.0-77.0	No odors, sheens, or NAPL observed in drilling water or cuttings
NMW-108D	Nov. 6	31.6	33.5	Dec. 2	77.0	Dec. 12	75.0-77.0	Trace sheens observed in drilling water from 33.5-55.0'
NMW-109D	Dec. 17	28.9	31.5	Dec. 18	77.0	Dec. 29	75.0-77.0	Trace sheens observed in drilling water from 52.0-77.0'
NMW-110D	Nov. 7	31.5	33.5	Dec. 1, 2	77.0	Dec. 12	75.0-77.0	Trace sheens observed in drilling water from 33.5-77.0' (sheens less apparent below 53.0')
NMW-111D	Nov. 11	29.8	34.0	Dec. 3	77.0	Dec. 29	75.0-77.0	Trace sheens observed in drilling water from 34.0-55.0'
NMW-112D	Nov. 12	34.2	36.5	Dec. 3, 4	77.5	Dec. 29	75.5-77.5	Trace sheens observed in drilling water from 36.5-51.0'; began losing water at 51.0'
NMW-113D	Nov. 14	30.3	32.0	Dec. 4, 5	77.5	Dec. 19	75.5-77.5	Trace sheens observed in drilling water; began losing water at 54.0' (artesian conditions observed at NMW-111D and NMW-112D; trace NAPL blebs observed in water from NMW-112D during artesian conditions; rising water levels observed at NMW-108D and NMW-110D)
NMW-114D	Nov. 12	37.6	41.5	Dec. 8, 9	77.0	Dec. 18	75.0-77.0	Trace sheens observed in drilling water from 41.5-77.0'; trace NAPL bleb (one) observed in drilling water at 65.0'
NMW-115D	Nov. 17	47.8	51.0	Dec. 9	77.0	Dec. 16	75.0-77.0	Trace sheens observed in drilling water at 62.0'
NMW-116D	Nov. 19	60.7	63.0	Dec. 10	77.5	Dec. 17	75.5-77.5	Trace sheens observed in drilling water from 63.0-77.5'
NMW-117D	Nov. 20	60.9	63.0	Dec. 10	77.5	Dec. 17	75.5-77.5	Trace to little NAPL blebs and sheens observed in drilling water from 63.0-77.5'
NMW-118D	Nov. 14	49.8	52.0	Dec. 11	77.5	Dec. 17	75.5-77.5	Trace sheens observed in drilling water from 52.0-77.5'
NMW-119D	Nov. 21	53.5	55.5	Dec. 11	77.5	Dec. 17	75.5-77.5	Trace sheens observed in drilling water from 55.5-77.5'
NMW-120D	Nov. 25	37.8	41.0	Dec. 15, 16	77.0	Dec. 18	75.0-77.0	No odors, sheens, or NAPL observed in drilling water or cuttings
NMW-121D	Nov. 24	34.8	37.0	Dec. 12	77.0	Dec. 18	75.0-77.0	No odors, sheens, or NAPL observed in drilling water or cuttings

Table 3

Central Hudson Gas & Electric Corporation  
 North Water Street Former MGP Site  
 Poughkeepsie, New York

## Overburden Well Information

Well ID	Date Installed	Diameter	Total Depth (ft)	Screen Interval (ft)	Sump Interval (ft)
MW-200	Dec. 10	2"	16.0	6.0-16.0	--
MW-201	Dec. 10	2"	14.0	4.0-14.0	--
NMW-102S	Dec. 11	2"	21.0	4.0-19.0	19.0-21.0
NMW-104S	Dec. 11	6"	22.2	5.0-20.0	20.0-22.2
NMW-105S	Dec. 11	6"	28.2	6.0-26.0	26.0-28.2
NMW-106S	Dec. 2	6"	27.2	10.0-25.0	25.0-27.2
NMW-107S	Nov. 26	6"	26.5	4.0-24.0	24.0-26.5
NMW-108S	Dec. 1	6"	26.2	4.0-24.0	24.0-26.2
NMW-109S	Dec. 3	6"	23.2	6.0-21.0	21.0-23.2
NMW-110S	Dec. 3	6"	26.2	4.0-24.0	24.0-26.2
NMW-111S	Dec. 16	6"	32.0	5.0-30.0	30.0-32.0
NMW-112S	Dec. 9	6"	27.2	5.0-25.0	25.0-27.2
NMW-113S	Dec. 15	6"	32.0	5.0-30.0	30.0-32.0
NMW-115S	Dec. 4	6"	37.5	30.3-35.3	35.3-37.5
NMW-116S	Dec. 5	6"	43.4	31.2-41.2	41.2-43.4
NMW-117S	Dec. 9	6"	42.2	35.0-40.0	40.0-42.2

Table 4

Central Hudson Gas & Electric Corporation  
North Water Street Former MGP Site  
Poughkeepsie, New York

**Well Development Information**

Well ID	Date Developed	Volume of Water Removed (gal)	Development Notes/Observations
MW-200	Jan. 6	20	No NAPL, odor, or sheens observed in purge water
MW-201	Jan. 5	20	No NAPL, odor, or sheens observed in purge water
NMW-102S	Jan. 6	25	Little sheens observed in purge water
	Jan. 20	15	Moderate sheen observed in purge water
NMW-104S	Dec. 30	100	Slight sheen observed in purge water
NMW-105S	Dec. 30	100	Sheens and strong odor observed in purge water
	Jan. 20	20	Slight sheen and odor observed in purge water
NMW-106S	Dec. 29	50	Went dry after 50 gal; sheens and strong odor observed in purge water
NMW-107S	Dec. 30	Not recorded	Sheens and strong odor observed in purge water
NMW-108S	Dec. 30	Not recorded	Not recorded
	Jan. 20	20	Trace sheens observed in purge water
NMW-109S	Dec. 31	Not recorded	NAPL observed in purge water
NMW-110S	Dec. 31	100	Sheens and odor observed in purge water
	Jan. 20	15	Trace NAPL blebs observed in purge water
NMW-111S	Dec. 30, 31	Not recorded	Sheens and odor observed in purge water
NMW-112S	Dec. 31	100	Sheens and odor observed in purge water
NMW-113S	Dec. 31	75	Sheens and odor observed in purge water
NMW-115S	Dec. 31	75	Sheens and odor observed in purge water
NMW-116S	Jan. 5	200	NAPL observed in purge water
NMW-117S	Jan. 5	200	Pumped 10 gal NAPL then 200 gal water; NAPL observed in purge water
NMW-100D	Dec. 12, 15	250	Pumped 100 gal (went dry) on 12/12; pumped 150 gal (went dry) on 12/15; no NAPL, odor, or sheens observed in purge water
NMW-102D	Dec. 15	300	No NAPL, odor, or sheens observed in purge water
NMW-103D	Dec. 30	300	Slight sheen observed in purge water
	Jan. 20	15	Slight odor observed in purge water
NMW-104D	Dec. 16	300	Trace NAPL blebs, sheens, and faint odor observed in purge water
	Dec. 30	300	Not recorded
	Jan. 20	15	Slight sheen observed in purge water
NMW-105D	Dec. 30	Not recorded	Not recorded
	Jan. 20	15	Slight sheen observed in purge water
NMW-106D	Dec. 11	500	Some NAPL observed in purge water
	Jan. 20	15	No NAPL, odor, or sheens observed in purge water
NMW-107D	Dec. 29	200	Sheens and odor observed in purge water
	Jan. 20	20	Slight sheen observed in purge water
NMW-108D	Dec. 11	500	Trace NAPL observed in purge water
	Jan. 20	20	Trace sheens observed in purge water
NMW-109D	Dec. 29	200	Sheens and strong odor observed in purge water
NMW-110D	Dec. 12	500	Little to some NAPL observed in purge water
NMW-111D	Dec. 19	300	Little to some NAPL observed in purge water
	Jan. 20	15	No NAPL, odor, or sheens observed in purge water
NMW-112D	Dec. 19	300	Trace to little NAPL blebs observed in purge water
NMW-113D	Dec. 18	200	Trace NAPL blebs and sheens observed in purge water
	Jan. 19	25	Trace sheens observed in purge water
NMW-114D	Dec. 18	Not recorded	Faint odor observed in purge water
NMW-115D	Dec. 16	300	Faint odor observed in purge water
NMW-116D	Dec. 16, 17	110	Pumped 60 gal (went dry) on Dec. 16; pumped 50 gal (went dry) on Dec. 17; faint odor observed in purge water
NMW-117D	Dec. 17	75	Went dry after 75 gal; faint odor observed in purge water
NMW-118D	Dec. 17	170	Pumped 150 gal (went dry); pumped another 20 gal; no NAPL, odor, or sheens observed in purge water
NMW-119D	Dec. 17	110	Pumped 35 gal (went dry); pumped another 75 gal; faint odor observed in purge water
NMW-120D	Dec. 18	Not recorded	No NAPL, odor, or sheens observed in purge water
NMW-121D	Dec. 18	100	No NAPL, odor, or sheens observed in purge water

Table 5

Central Hudson Gas & Electric Corporation  
 North Water Street Former MGP Site  
 Poughkeepsie, NY

## NAPL Monitoring Data

Well ID	Date	Time	Depth to Water (ft)	Depth to Top of DNAPL (ft)	Total Well Depth (ft)	Approx. DNAPL Thickness (ft)	Approx. Volume DNAPL Removed (liter) <sup>2</sup>
NMW-100D	1/7/04	8:07	8.02	--	71.97	--	0.0
	2/10/04	9:33	8.38	--	74.74	--	0.0
	2/20/04	17:55	6.77	--	74.74	--	0.0
	3/8/04	14:47	3.98	--	74.75	--	0.0
NMW-102D	1/7/04	8:29	7.66	--	72.42	--	0.0
	2/10/04	9:34	8.30	--	73.25	--	0.0
	2/20/04	17:49	6.62	--	73.25	--	0.0
	3/8/04	14:43	3.79	--	73.25	--	0.0
NMW-102S	1/7/04	8:22	7.45	--	18.00	--	0.0
	1/20/04	8:49	6.28	--	20.78 *	--	0.0
	2/10/04	9:34	7.92	--	20.81	--	0.0
	2/20/04	17:51	6.12	--	20.82	--	0.0
	3/8/04	14:45	3.39	--	20.79	--	0.0
NMW-103D	1/7/04	8:36	8.04	--	74.04	--	0.0
	1/20/04	8:46	6.70	--	74.45 *	--	0.0
	2/10/04	9:35	8.30	--	74.90	--	0.0
	2/20/04	17:39	6.46	--	74.90	--	0.0
	3/8/04	14:35	3.67	--	74.92	--	0.0
NMW-104D	1/7/04	9:12	7.18	--	73.00	--	0.0
	1/20/04	8:43	6.55	--	72.99	--	0.0
	2/10/04	9:36	8.50	--	72.47	--	0.0
	2/20/04	17:32	6.67	--	72.49	--	0.0
	3/8/04	14:25	3.76	--	72.50	--	0.0
NMW-104S	1/7/04	9:03	7.00	--	21.58	--	0.0
	2/10/04	9:36	8.13	--	21.75	--	0.0
	2/20/04	17:36	6.14	--	21.75	--	0.0
	3/8/04	14:29	3.29	--	21.78	--	0.0
NMW-105D	1/7/04	9:35	6.90	--	74.55	--	0.0
	1/20/04	8:37	6.64	--	75.70 *	--	0.0
	2/10/04	9:38	8.57	--	76.19	--	0.0
	2/20/04	17:26	6.71	--	76.20	--	0.0
	3/8/04	14:18	3.75	--	76.22	--	0.0
NMW-105S	1/7/04	9:21	6.66	--	26.53	--	0.0
	1/20/04	8:40	6.11	--	27.08 *	--	0.0
	2/10/04	9:37	8.33	--	27.20	--	0.0
	2/20/04	17:30	6.57	--	27.20	--	0.0
	3/8/04	14:22	3.40	--	27.30	--	0.0
NMW-106D	1/7/04	9:52	6.22	--	72.19	trace	0.0
	1/19/04	10:41	3.60	--	72.50 *	--	0.0
	2/10/04	9:39	8.11	--	72.49	--	0.0
	2/20/04	17:10	6.06	--	72.48	--	0.0
	3/8/04	14:05	3.27	--	74.20	--	0.0
NMW-106S	1/7/04	9:44	6.60	--	26.46	--	0.0
	2/10/04	9:39	8.57	--	26.52	--	0.0
	2/20/04	17:15	6.57	--	26.54	--	0.0
	3/8/04	14:12	3.60	--	26.55	--	0.0
NMW-107D	1/7/04	10:22	5.50	--	71.18	--	0.0
	1/20/04	8:31	5.91	--	74.50 *	--	0.0
	2/10/04	9:40	7.78	--	75.95	--	0.0
	2/20/04	17:19	5.85	--	73.78	--	0.0
	3/8/04	13:57	2.92	--	73.78	--	0.0



Table 5

Central Hudson Gas & Electric Corporation  
 North Water Street Former MGP Site  
 Poughkeepsie, NY

## NAPL Monitoring Data

Well ID	Date	Time	Depth to Water (ft)	Depth to Top of DNAPL (ft)	Total Well Depth (ft)	Approx. DNAPL Thickness (ft)	Approx. Volume DNAPL Removed (liter) <sup>2</sup>
NMW-107S	1/7/04	10:02	6.25	--	26.25	--	0.0
	2/10/04	9:40	8.42	--	26.26	--	0.0
	2/20/04	17:06	6.32	--	26.27	--	0.0
	3/8/04	14:03	3.44	--	26.30	--	0.0
NMW-108D	1/7/04	10:39	5.33	--	74.40	--	0.0
	1/20/04	8:25	6.05	--	74.53 *	--	0.0
	2/10/04	9:42	7.84	--	74.55	--	0.0
	2/20/04	Well could not be accessed - covered with thick layer of ice					
	3/8/04	13:30	2.96	--	75.10	--	0.0
NMW-108S	1/7/04	10:29	5.99	--	23.03	--	0.0
	1/20/04	8:28	6.47	--	24.53 *	--	0.0
	2/10/04	9:41	8.42	--	24.80	--	0.0
	2/20/04	17:00	5.69	--	24.45	--	0.0
	3/8/04	13:45	3.41	--	24.55	--	0.0
NMW-109D	1/7/04	11:09	5.51	--	76.43	--	0.0
	2/10/04	9:44	8.30	--	76.55	--	0.0
	2/20/04	16:48	5.90	--	76.55	--	0.0
	3/8/04	13:19	3.45	--	76.58	--	0.0
NMW-109S	1/7/04	11:00	5.20	--	22.12	--	0.0
	1/20/04	8:19	6.40	--	22.16	--	0.0
	2/10/04	9:44	7.86	--	22.30	--	0.0
	2/20/04	16:52	4.88	--	22.24	--	0.0
	3/8/04	13:23	2.92	--	22.40	--	0.0
NMW-110D	1/7/04	13:15	4.89	--	76.32	--	0.0
	2/10/04	9:45	8.48	--	76.70	--	0.0
	2/20/04	16:36	6.05	--	75.05	--	0.0
	3/8/04	11:26	4.25	--	77.24	--	0.0
NMW-110S	1/7/04	13:05	4.91	--	24.71	trace	0.0
	1/19/04	10:47	3.93	--	24.82 *	trace	0.0
	2/10/04	9:45	8.58	--	24.90	--	0.0
	2/20/04	16:44	6.28	--	25.00	--	0.0
	3/8/04	11:35	4.16	--	25.37	--	0.0
NMW-111D	1/7/04	13:36	4.55	--	74.85	--	0.0
	1/20/04	8:13	6.53	--	77.05 *	--	0.0
	2/10/04	9:47	8.00	--	77.09	--	0.0
	2/20/04	16:27	5.44	--	77.10	--	0.0
	3/8/04	11:21	4.00	--	77.12	--	0.0
NMW-111S	1/7/04	13:27	4.10	--	30.60	--	0.0
	1/20/04	7:55	6.33	--	30.84	--	0.0
	2/10/04	9:46	7.71	--	30.79	--	0.0
	2/20/04	16:31	5.10	--	30.76	--	0.0
	3/8/04	11:23	3.50	--	30.84	--	0.0
NMW-112D	1/7/04	14:02	4.30	--	74.57	--	0.0
	1/20/04	8:00	6.32	--	76.77	--	0.0
	2/10/04	9:49	7.57	--	76.79	--	0.0
	2/20/04	16:14	4.82	--	76.79	--	0.0
	3/8/04	11:12	3.65	--	76.80	--	0.0

Table 5

Central Hudson Gas & Electric Corporation  
 North Water Street Former MGP Site  
 Poughkeepsie, NY

## NAPL Monitoring Data

Well ID	Date	Time	Depth to Water (ft)	Depth to Top of DNAPL (ft)	Total Well Depth (ft)	Approx. DNAPL Thickness (ft)	Approx. Volume DNAPL Removed (liter) <sup>2</sup>
NMW-112S	1/7/04	13:50	4.35	--	26.50	trace	0.0
	1/19/04	10:52	3.24	--	26.65	trace	0.0
	2/10/04	10:06	7.67	--	26.77	trace	0.0
	2/20/04	16:19	5.05	--	26.77	trace	0.0
	3/8/04	11:14	3.69	--	26.80	trace	0.0
NMW-113D	1/7/04	14:23	4.54	--	74.22	--	0.0
	2/10/04	9:50	7.65	--	74.85	--	0.0
	2/20/04	15:55	4.65	--	74.68	--	0.0
	3/8/04	11:03	4.82	--	74.70	--	0.0
NMW-113S	1/7/04	14:14	4.54	--	31.23	--	0.0
	2/10/04	10:02	7.46	--	31.51	--	0.0
	2/20/04	16:04	4.72	--	31.50	--	0.0
	3/8/04	11:09	3.90	--	31.52	--	0.0
NMW-114D	1/7/04	14:33	3.66	--	74.89	--	0.0
	2/10/04	9:50	6.06	--	76.72	--	0.0
	2/20/04	15:49	3.05	--	76.76	--	0.0
	3/8/04	10:56	4.40	--	76.76	--	0.0
NMW-115D	1/7/04	14:45	4.38	--	73.99	--	0.0
	2/10/04	9:51	7.19	--	76.40	--	0.0
	2/20/04	15:32	3.86	--	74.60	--	0.0
	3/8/04	10:48	3.58	--	76.60	--	0.0
NMW-115S	1/7/04	14:39	4.15	--	36.36	trace	0.0
	1/19/04	10:59	2.77	--	36.45	trace	0.0
	2/10/04	9:51	6.80	--	36.51	--	0.0
	2/20/04	15:44	3.85	--	36.51	--	0.0
	3/8/04	10:53	3.29	--	36.55	--	0.0
NMW-116D	1/7/04	15:06	4.00	--	74.30	--	0.0
	2/10/04	9:53	6.12	--	76.36	--	0.0
	2/20/04	15:27	2.95	--	76.35	--	0.0
	3/8/04	10:45	4.45	--	76.55	--	0.0
NMW-116S	1/7/04	14:49	4.61	38.65	42.85	4.20	1.0
	1/19/04	11:09	3.27	38.65	41.35	2.70	7.0
	2/9/04	10:57	6.20	38.40	42.90	4.50	26.5
	2/20/04	9:00	5.00	41.65	42.92	1.27	7.6
	3/8/04	9:15	5.05	41.95	43.15	1.20	7.6
NMW-117D	1/7/04	15:20	3.99	--	71.90	--	0.0
	2/10/04	8:05	4.44	--	74.10	--	0.0
	2/20/04	15:16	3.46	--	72.87	--	0.0
	3/8/04	10:20	3.71	--	72.80	--	0.0
NMW-117S	1/7/04	15:00	13.36	32.33	41.24	8.70	22.7
	1/19/04	11:25	4.00	30.16	41.16	11.00	83.3
	2/9/04	10:50	6.85	37.20	41.20	4.00	26.5
	2/20/04	10:08	4.67	37.05	41.25	4.20	26.5
	3/8/04	9:22	5.21	37.25	41.25	4.00	28.4
NMW-118D	1/7/04	15:31	3.47	--	73.66	--	0.0
	2/10/04	9:58	5.11	--	75.00	--	0.0
	2/20/04	13:33	2.75	--	75.00	--	0.0
	3/8/04	10:15	3.64	--	75.00	--	0.0

Table 5

Central Hudson Gas & Electric Corporation  
 North Water Street Former MGP Site  
 Poughkeepsie, NY

## NAPL Monitoring Data

Well ID	Date	Time	Depth to Water (ft)	Depth to Top of DNAPL (ft)	Total Well Depth (ft)	Approx. DNAPL Thickness (ft)	Approx. Volume DNAPL Removed (liter) <sup>2</sup>
NMW-119D	1/7/04	15:40	2.73	--	70.10	--	0.0
	2/10/04	8:12	3.48	--	77.05	--	0.0
	2/20/04	13:22	3.05	--	77.08	--	0.0
	3/8/04	10:10	2.80	--	77.08	--	0.0
NMW-120D	1/7/04	15:50	3.95	--	76.03	--	0.0
	2/10/04	8:19	4.62	--	76.50	--	0.0
	2/20/04	13:17	4.15	--	76.65	--	0.0
	3/8/04	10:05	3.86	--	76.69	--	0.0
NMW-121D	1/7/04	16:00	5.36	--	74.33	--	0.0
	2/10/04	8:24	6.16	--	76.40	--	0.0
	2/20/04	13:05	5.60	--	76.36	--	0.0
	3/8/04	10:00	5.20	--	76.39	--	0.0
MW-1	1/7/04	12:30	14.97	--	25.99	trace	0.0
MW-2	1/7/04	Well could not be located - possibly paved over					
MW-3	1/7/04	12:22	11.33	--	26.15	--	0.0
MW-4	1/7/04	13:43	4.48	--	15.64	--	0.0
	2/10/04	9:47	7.70	--	15.83	--	0.0
	2/20/04	16:23	5.18	--	15.74	--	0.0
	3/8/04	11:18	3.70	--	15.72	--	0.0
MW-5	1/7/04	10:47	5.74	--	13.65	trace	0.0
	2/20/04	16:56	5.95	--	13.70	--	0.0
	3/8/04	13:27	Ice buildup in casing - unable to obtain measurements				
MW-6	1/7/04	8:47	7.73	--	13.65	trace	0.0
	2/20/04	17:43	5.78	--	13.73	--	0.0
	3/8/04	14:37	4.13	--	13.58	--	0.0

**Notes:**

All depth measurements are made from the top of the inner casing.

\* Total well depth measurement obtained following re-development on 1/20/04.

Table 6

Central Hudson Gas & Electric Corporation  
 North Water Street Former MGP Site  
 Poughkeepsie, New York

**NMW-116S NAPL Recovery Test Data**

Date/Time	Depth to NAPL (ft)	NAPL Thickness (ft)
Pump 1: 2/9/04 15:17 - 15:32 (7 gallons NAPL removed; very silty)		
2/9/04 3:17 PM	38.15	4.75
2/9/04 3:20 PM	38.70	4.20
2/9/04 3:23 PM	39.30	3.60
2/9/04 3:25 PM	40.39	2.51
2/9/04 3:27 PM	41.15	1.75
2/9/04 3:28 PM	41.65	1.25
2/9/04 3:30 PM	42.25	0.65
2/9/04 3:32 PM	--	0.00
Recovery 1		
2/9/04 3:41 PM	*	0.00
2/9/04 3:58 PM	*	0.10
2/9/04 4:40 PM	*	0.20
2/9/04 5:00 PM	*	0.25
2/9/04 7:49 PM	*	0.25
2/10/04 7:45 AM	*	0.30
2/10/04 1:06 PM	*	0.35
2/10/04 4:02 PM	*	0.50
2/20/04 9:00 AM	41.65	1.25
Pump 2: 2/20/04 11:58 - 12:43 (2 gallons NAPL removed; very silty)		
2/20/04 12:43 PM	--	0.00
Recovery 2		
2/20/04 2:55 PM	*	0.00
2/20/04 6:05 PM	*	0.00

**Notes:**

NAPL thicknesses and removal volumes are approximate

NAPL thickness measurement likely indicate thickness of NAPL/silt mixture

\* Interface probe not functioning correctly - possibly affected by NAPL/silt mixture in well bottom

Table 7

Central Hudson Gas & Electric Corporation  
 North Water Street Former MGP Site  
 Poughkeepsie, New York

NMW-117S NAPL Recovery Test Data

Date/Time	Depth to NAPL (ft)	NAPL Thickness (ft)
Pump 1: 2/9/04 12:53 - 13:05 (approx. 7 gallons NAPL removed)		
2/9/04 12:53 PM	36.80	4.40
2/9/04 12:56 PM	38.30	2.90
2/9/04 12:58 PM	38.75	2.45
2/9/04 1:00 PM	39.50	1.70
2/9/04 1:01 PM	40.05	1.15
2/9/04 1:03 PM	40.65	0.55
2/9/04 1:05 PM	--	0.00
Recovery 1		
2/9/04 1:11 PM	40.90	0.30
2/9/04 1:20 PM	40.80	0.40
2/9/04 1:25 PM	40.70	0.50
2/9/04 1:30 PM	40.50	0.70
2/9/04 1:35 PM	40.45	0.75
2/9/04 1:40 PM	40.34	0.86
2/9/04 1:45 PM	40.25	0.95
2/9/04 1:50 PM	40.16	1.04
2/9/04 1:55 PM	40.11	1.09
2/9/04 2:00 PM	40.01	1.19
2/9/04 2:05 PM	39.96	1.24
2/9/04 2:10 PM	39.90	1.30
2/9/04 2:15 PM	39.83	1.37
2/9/04 2:25 PM	39.75	1.45
2/9/04 2:35 PM	39.75	1.45
2/9/04 2:45 PM	39.71	1.49
2/9/04 2:59 PM	39.55	1.65
2/9/04 3:38 PM	39.38	1.82
2/9/04 4:00 PM	39.22	1.98
2/9/04 4:14 PM	39.15	2.05
Pump 2: 2/9/04 16:17 - 16:23 (approx. 3 gallons NAPL removed)		
2/9/04 4:20 PM	40.30	0.90
2/9/04 4:21 PM	40.50	0.70
2/9/04 4:23 PM	--	0.00
Recovery 2		
2/9/04 4:35 PM	41.00	0.20
2/9/04 4:40 PM	40.94	0.26
2/9/04 4:50 PM	40.86	0.34
2/9/04 5:00 PM	40.80	0.40
2/9/04 5:11 PM	40.76	0.44
2/9/04 5:21 PM	40.73	0.47
2/9/04 5:31 PM	40.71	0.49
2/9/04 5:43 PM	40.70	0.50
2/9/04 7:48 PM	40.67	0.53
2/10/04 7:43 AM	39.91	1.29
2/10/04 10:12 AM	39.90	1.30
2/10/04 1:04 PM	39.66	1.54
2/10/04 2:50 PM	39.45	1.75
2/10/04 3:01 PM	39.45	1.75
2/10/04 3:04 PM	39.85	1.35

Table 7

Central Hudson Gas & Electric Corporation  
 North Water Street Former MGP Site  
 Poughkeepsie, New York

**NMW-117S NAPL Recovery Test Data**

Date/Time	Depth to NAPL (ft)	NAPL Thickness (ft)
<b>Pump 3: 2/10/04 15:01 - 15:13 (approx. 2.5 gallons NAPL removed)</b>		
2/10/04 3:06 PM	40.60	0.60
2/10/04 3:08 PM	40.80	0.40
2/10/04 3:09 PM	41.00	0.20
2/10/04 3:10 PM	--	0.00
2/10/04 3:13 PM	--	0.00
<b>Recovery 3</b>		
2/10/04 3:23 PM	--	0.00
2/10/04 3:33 PM	41.00	0.20
2/10/04 3:43 PM	40.85	0.35
2/10/04 3:53 PM	40.79	0.41
2/10/04 4:05 PM	40.73	0.47
2/10/04 4:17 PM	40.68	0.52
2/10/04 4:28 PM	40.62	0.58
2/10/04 4:39 PM	40.60	0.60
2/10/04 4:52 PM	40.59	0.61
2/20/04 11:02 AM	37.00	4.20
<b>Pump 4: 2/20/04 11:03 - 11:17 (approx. 7 gallons NAPL removed)</b>		
2/20/04 11:05 AM	38.10	3.10
2/20/04 11:06 AM	38.30	2.90
2/20/04 11:07 AM	38.70	2.50
2/20/04 11:10 AM	39.50	1.70
2/20/04 11:12 AM	40.20	1.00
2/20/04 11:15 AM	40.90	0.30
2/20/04 11:17 AM	--	0.00
<b>Recovery 4</b>		
2/20/04 11:40 AM	40.75	0.45
2/20/04 1:48 PM	40.55	0.65
2/20/04 2:56 PM	39.67	1.53
2/20/04 6:10 PM	39.60	1.60

**Notes:**

NAPL thicknesses and removal volumes are approximate.

Table 8

Central Hudson Gas & Electric Corporation  
North Water Street Former MGP Site  
Poughkeepsie, NY

Groundwater and Surface Water Elevation Data

Well ID	Date	Time	Measuring Point Elevation (feet AMSL) <sup>1</sup>	Depth to Water (ft)	Groundwater Elevation (feet AMSL)
MW-200	1/7/04	8:00	6.70	7.75	-1.05
	2/10/04	9:30	6.70	7.97	-1.27
	2/20/04	17:57	6.70	5.80	0.90
MW-201	1/19/04	10:35	5.35	2.45	2.90
	2/10/04	10:08	5.35	6.21	-0.86
	2/20/04	13:30	5.35	2.02	3.33
NMW-100D	1/7/04	8:07	7.18	8.02	-0.84
	2/10/04	9:33	7.18	8.38	-1.20
	2/20/04	17:55	7.18	6.77	0.41
	3/8/04	14:47	7.18	3.98	3.20
NMW-102D	1/7/04	8:29	7.01	7.66	-0.65
	2/10/04	9:34	7.01	8.30	-1.29
	2/20/04	17:49	7.01	6.62	0.39
	3/8/04	14:43	7.01	3.79	3.22
NMW-102S	1/7/04	8:22	6.61	7.45	-0.84
	1/20/04	8:49	6.61	6.28	0.33
	2/10/04	9:34	6.61	7.92	-1.31
	2/20/04	17:51	6.61	6.12	0.49
	3/8/04	14:45	6.61	3.39	3.22
NMW-103D	1/7/04	8:36	6.99	8.04	-1.05
	1/20/04	8:46	6.99	6.70	0.29
	2/10/04	9:35	6.99	8.30	-1.31
	2/20/04	17:39	6.99	6.46	0.53
	3/8/04	14:35	6.99	3.67	3.32
NMW-104D	1/7/04	9:12	7.08	7.18	-0.10
	1/20/04	8:43	7.08	6.55	0.53
	2/10/04	9:36	7.08	8.50	-1.42
	2/20/04	17:32	7.08	6.67	0.41
	3/8/04	14:25	7.08	3.76	3.32
NMW-104S	1/7/04	9:03	6.65	7.00	-0.35
	2/10/04	9:36	6.65	8.13	-1.48
	2/20/04	17:36	6.65	6.14	0.51
	3/8/04	14:29	6.65	3.29	3.36
NMW-105D	1/7/04	9:35	7.13	6.90	0.23
	1/20/04	8:37	7.13	6.64	0.49
	2/10/04	9:38	7.13	8.57	-1.44
	2/20/04	17:26	7.13	6.71	0.42
	3/8/04	14:18	7.13	3.75	3.38
NMW-105S	1/7/04	9:21	6.74	6.66	0.08
	1/20/04	8:40	6.74	6.11	0.63
	2/10/04	9:37	6.74	8.33	-1.59
	2/20/04	17:30	6.74	6.57	0.17
	3/8/04	14:22	6.74	3.40	3.34
NMW-106D	1/7/04	9:52	6.66	6.22	0.44
	1/19/04	10:41	6.66	3.60	3.06
	2/10/04	9:39	6.66	8.11	-1.45
	2/20/04	17:10	6.66	6.06	0.60
	3/8/04	14:05	6.66	3.27	3.39
NMW-106S	1/7/04	9:44	6.99	6.60	0.39
	2/10/04	9:39	6.99	8.57	-1.58
	2/20/04	17:15	6.99	6.57	0.42
	3/8/04	14:12	6.99	3.60	3.39

Table 8

Central Hudson Gas & Electric Corporation  
 North Water Street Former MGP Site  
 Poughkeepsie, NY

## Groundwater and Surface Water Elevation Data

Well ID	Date	Time	Measuring Point Elevation (feet AMSL) <sup>1</sup>	Depth to Water (ft)	Groundwater Elevation (feet AMSL)
NMW-107D	1/7/04	10:22	6.33	5.50	0.83
	1/20/04	8:31	6.33	5.91	0.42
	2/10/04	9:40	6.33	7.78	-1.45
	2/20/04	17:19	6.33	5.85	0.48
	3/8/04	13:57	6.33	2.92	3.41
NMW-107S	1/7/04	10:02	6.83	6.25	0.58
	2/10/04	9:40	6.83	8.42	-1.59
	2/20/04	17:06	6.83	6.32	0.51
	3/8/04	14:03	6.83	3.44	3.39
NMW-108D	1/7/04	10:39	6.37	5.33	1.04
	1/20/04	8:25	6.37	6.05	0.32
	2/10/04	9:42	6.37	7.84	-1.47
	2/20/04	Well not accessible due to ice			
NMW-108S	3/8/04	13:30	6.37	2.96	3.41
	1/7/04	10:29	6.90	5.99	0.91
	1/20/04	8:28	6.90	6.47	0.43
	2/10/04	9:41	6.90	8.42	-1.52
	2/20/04	17:00	6.90	5.69	1.21
	3/8/04	13:45	6.90	3.41	3.49
NMW-109D	1/7/04	11:09	6.90	5.51	1.39
	2/10/04	9:44	6.90	8.30	-1.40
	2/20/04	16:48	6.90	5.90	1.00
	3/8/04	13:19	6.90	3.45	3.45
NMW-109S	1/7/04	11:00	6.37	5.20	1.17
	1/20/04	8:19	6.37	6.40	-0.03
	2/10/04	9:44	6.37	7.86	-1.49
	2/20/04	16:52	6.37	4.88	1.49
	3/8/04	13:23	6.37	2.92	3.45
NMW-110D	1/7/04	13:15	7.00	4.89	2.11
	2/10/04	9:45	7.00	8.48	-1.48
	2/20/04	16:36	7.00	6.05	0.95
	3/8/04	11:26	7.00	4.25	2.75
NMW-110S	1/7/04	13:05	7.01	4.91	2.10
	1/19/04	10:47	7.01	3.93	3.08
	2/10/04	9:45	7.01	8.58	-1.57
	2/20/04	16:44	7.01	6.28	0.73
	3/8/04	11:35	7.01	4.16	2.85
NMW-111D	1/7/04	13:36	6.66	4.55	2.11
	1/20/04	8:13	6.66	6.53	0.13
	2/10/04	9:47	6.66	8.00	-1.34
	2/20/04	16:27	6.66	5.44	1.22
	3/8/04	11:21	6.66	4.00	2.66
NMW-111S	1/7/04	13:27	6.18	4.10	2.08
	1/20/04	7:55	6.18	6.33	-0.15
	2/10/04	9:46	6.18	7.71	-1.53
	2/20/04	16:31	6.18	5.10	1.08
	3/8/04	11:23	6.18	3.50	2.68
NMW-112D	1/7/04	14:02	6.19	4.30	1.89
	1/20/04	8:00	6.19	6.32	-0.13
	2/10/04	9:49	6.19	7.57	-1.38
	2/20/04	16:14	6.19	4.82	1.37
	3/8/04	11:12	6.19	3.65	2.54



Table 8

Central Hudson Gas & Electric Corporation  
 North Water Street Former MGP Site  
 Poughkeepsie, NY

## Groundwater and Surface Water Elevation Data

Well ID	Date	Time	Measuring Point Elevation (feet AMSL) <sup>1</sup>	Depth to Water (ft)	Groundwater Elevation (feet AMSL)
NMW-112S	1/7/04	13:50	6.20	4.35	1.85
	1/19/04	10:52	6.20	3.24	2.96
	2/10/04	10:06	6.20	7.67	-1.47
	2/20/04	16:19	6.20	5.05	1.15
	3/8/04	11:14	6.20	3.69	2.51
NMW-113D	1/7/04	14:23	6.29	4.54	1.75
	2/10/04	9:50	6.29	7.65	-1.36
	2/20/04	15:55	6.29	4.65	1.64
	3/8/04	11:03	6.29	4.82	1.47
NMW-113S	1/7/04	14:14	6.22	4.54	1.68
	2/10/04	10:02	6.22	7.46	-1.24
	2/20/04	16:04	6.22	4.72	1.50
	3/8/04	11:09	6.22	3.90	2.32
NMW-114D	1/7/04	14:33	5.71	3.66	2.05
	2/10/04	9:50	5.71	6.06	-0.35
	2/20/04	15:49	5.71	3.05	2.66
	3/8/04	10:56	5.71	4.40	1.31
NMW-115D	1/7/04	14:45	5.86	4.38	1.48
	2/10/04	9:51	5.86	7.19	-1.33
	2/20/04	15:32	5.86	3.86	2.00
	3/8/04	10:48	5.86	3.58	2.28
NMW-115S	1/7/04	14:39	5.53	4.15	1.38
	1/19/04	10:59	5.53	2.77	2.76
	2/10/04	9:51	5.53	6.80	-1.27
	2/20/04	15:44	5.53	3.85	1.68
	3/8/04	10:53	5.53	3.29	2.24
NMW-116D	1/7/04	15:06	5.75	4.00	1.75
	2/10/04	9:53	5.75	6.12	-0.37
	2/20/04	15:27	5.75	2.95	2.80
	3/8/04	10:45	5.75	4.45	1.30
NMW-116S	1/7/04	14:49	6.00	4.61	1.39
	1/19/04	11:09	6.00	3.27	2.73
	2/9/04	10:57	6.00	6.20	-0.20
	2/20/04	9:00	6.00	5.00	1.00
	3/8/04	9:15	6.00	5.05	0.95
NMW-117D	1/7/04	15:20	5.77	3.99	1.78
	2/10/04	8:05	5.77	4.44	1.33
	2/20/04	15:16	5.77	3.46	2.31
	3/8/04	10:20	5.77	3.71	2.06
NMW-117S	1/7/04	15:00	5.63	13.36	-7.73
	1/19/04	11:25	5.63	4.00	1.63
	2/9/04	10:50	5.63	6.85	-1.22
	2/20/04	10:08	5.63	4.67	0.96
	3/8/04	9:22	5.63	5.21	0.42
NMW-118D	1/7/04	15:31	5.87	3.47	2.40
	2/10/04	9:58	5.87	5.11	0.76
	2/20/04	13:33	5.87	2.75	3.12
	3/8/04	10:15	5.87	3.64	2.23
NMW-119D	1/7/04	15:40	5.17	2.73	2.44
	2/10/04	8:12	5.17	3.48	1.69
	2/20/04	13:22	5.17	3.05	2.12
	3/8/04	10:10	5.17	2.80	2.37

Table 8

Central Hudson Gas & Electric Corporation  
North Water Street Former MGP Site  
Poughkeepsie, NY

**Groundwater and Surface Water Elevation Data**

Well ID	Date	Time	Measuring Point Elevation (feet AMSL) <sup>1</sup>	Depth to Water (ft)	Groundwater Elevation (feet AMSL)
NMW-120D	1/7/04	15:50	6.45	3.95	2.50
	2/10/04	8:19	6.45	4.62	1.83
	2/20/04	13:17	6.45	4.15	2.30
	3/8/04	10:05	6.45	3.86	2.59
NMW-121D	1/7/04	16:00	8.10	5.36	2.74
	2/10/04	8:24	8.10	6.16	1.94
	2/20/04	13:05	8.10	5.60	2.50
	3/8/04	10:00	8.10	5.20	2.90
MW-1	1/7/04	12:30	66.82	14.97	51.85
MW-2	1/7/04	Well could not be located - possibly paved over			
MW-3	1/7/04	12:22	48.08	11.33	36.75
MW-4	1/7/04	13:43	6.24	4.48	1.76
	2/10/04	9:47	6.24	7.70	-1.46
	2/20/04	16:23	6.24	5.18	1.06
	3/8/04	11:18	6.24	3.70	2.54
MW-5	1/7/04	10:47	7.14	5.74	1.40
	2/20/04	16:56	7.14	5.95	1.19
	3/8/04	Well not accessible due to ice			
MW-6	1/7/04	8:47	7.32	7.73	-0.41
	2/20/04	17:43	7.32	5.78	1.54
	3/8/04	14:37	7.32	4.13	3.19

Location	Date	Time	Measuring Point Elevation (feet AMSL) <sup>1</sup>	Depth to Water (ft)	Surface Water Elevation (feet AMSL)
Hudson River Measuring Point	2/10/04	9:35	6.08	7.59	-1.51
	2/20/04	18:00	6.08	6.30	-0.22
	3/8/04	14:55	6.08	2.80	3.28

**Notes:**

AMSL = Above mean sea level

1. Measuring points for all wells is the top of inner well casing. Hudson River measuring point is the southwest corner of a steel structure that extends into the river and is located approximately 290 feet south of MW-200.

Table 9

Central Hudson Gas & Electric Corporation  
 North Water Street Former MGP Site  
 Poughkeepsie, NY

## Survey Data

Well ID	Northing	Easting	Ground Surface Elevation (feet AMSL)	Top of Casing Elevation (feet AMSL)
MW-200	4800.57	4622.38	7.36	6.70
MW-201	5255.27	4740.02	5.68	5.35
NMW-100D	4809.44	4623.11	7.62	7.18
NMW-102D	4860.21	4621.72	7.77	7.01
NMW-102S	4857.24	4619.72	7.57	6.61
NMW-103D	4884.63	4623.36	7.51	6.99
NMW-104D	4910.11	4627.92	7.28	7.08
NMW-104S	4908.83	4624.71	7.11	6.65
NMW-105D	4932.06	4631.49	7.39	7.13
NMW-105S	4926.40	4632.70	7.46	6.74
NMW-106D	4958.00	4633.78	7.13	6.66
NMW-106S	4955.09	4634.44	7.27	6.99
NMW-107D	4983.94	4638.61	7.25	6.33
NMW-107S	4980.32	4636.66	7.17	6.83
NMW-108D	5005.52	4644.07	7.00	6.37
NMW-108S	4999.10	4641.49	7.09	6.90
NMW-109D	5028.99	4655.04	7.22	6.90
NMW-109S	5025.14	4654.29	7.10	6.37
NMW-110D	5052.02	4663.73	7.31	7.00
NMW-110S	5048.93	4663.30	7.32	7.01
NMW-111D	5075.21	4673.13	7.12	6.66
NMW-111S	5072.21	4672.18	7.11	6.18
NMW-112D	5097.57	4682.66	6.77	6.19
NMW-112S	5094.77	4682.14	6.79	6.20
NMW-113D	5118.98	4698.31	6.63	6.29
NMW-113S	5115.37	4698.38	6.64	6.22
NMW-114D	5143.51	4700.93	6.39	5.71
NMW-115D	5163.66	4718.95	6.50	5.86
NMW-115S	5160.26	4717.64	6.39	5.53
NMW-116D	5190.46	4719.29	6.46	5.75
NMW-116S	5186.88	4717.37	6.36	6.00
NMW-117D	5207.95	4727.93	6.41	5.77
NMW-117S	5203.92	4725.49	6.39	5.63
NMW-118D	5225.72	4745.19	6.39	5.87
NMW-119D	5257.77	4748.38	5.56	5.17
NMW-120D	5246.81	4775.30	6.91	6.45
NMW-121D	5238.82	4795.63	8.48	8.10
MW-4	5087.45	4685.21	6.90	6.24
MW-5	5016.11	4651.56	7.18	7.14
MW-6	4882.08	4629.29	7.54	7.32

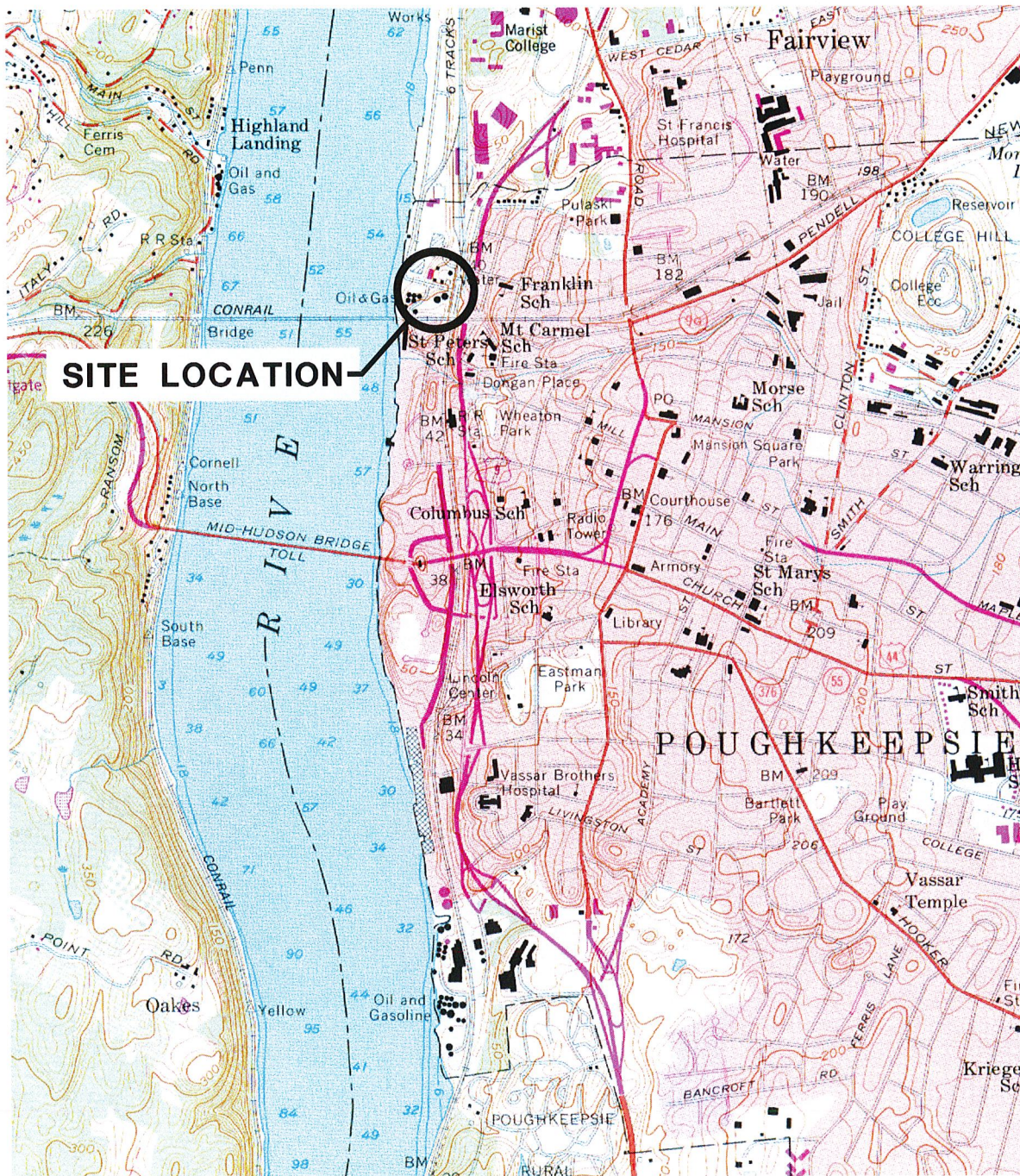
Location	Northing	Easting	Measuring Point Elevation (feet AMSL)
Hudson River Measuring Point	4515.65	4577.91	6.08

## Notes:

AMSL = Above mean sea level

# *Figures*

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FROM USGS POUGHKEEPSIE, N.Y. QUADRANGLE PHOTOREVISED 1982



GRAPHIC SCALE



QUADRANGLE LOCATION

CENTRAL HUDSON GAS & ELECTRIC CORPORATION  
 NORTH WATER STREET FORMER MGP SITE  
 POUGHKEEPSIE, NEW YORK

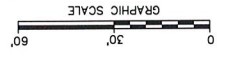
**SITE LOCATION MAP**



FIGURE  
**1**

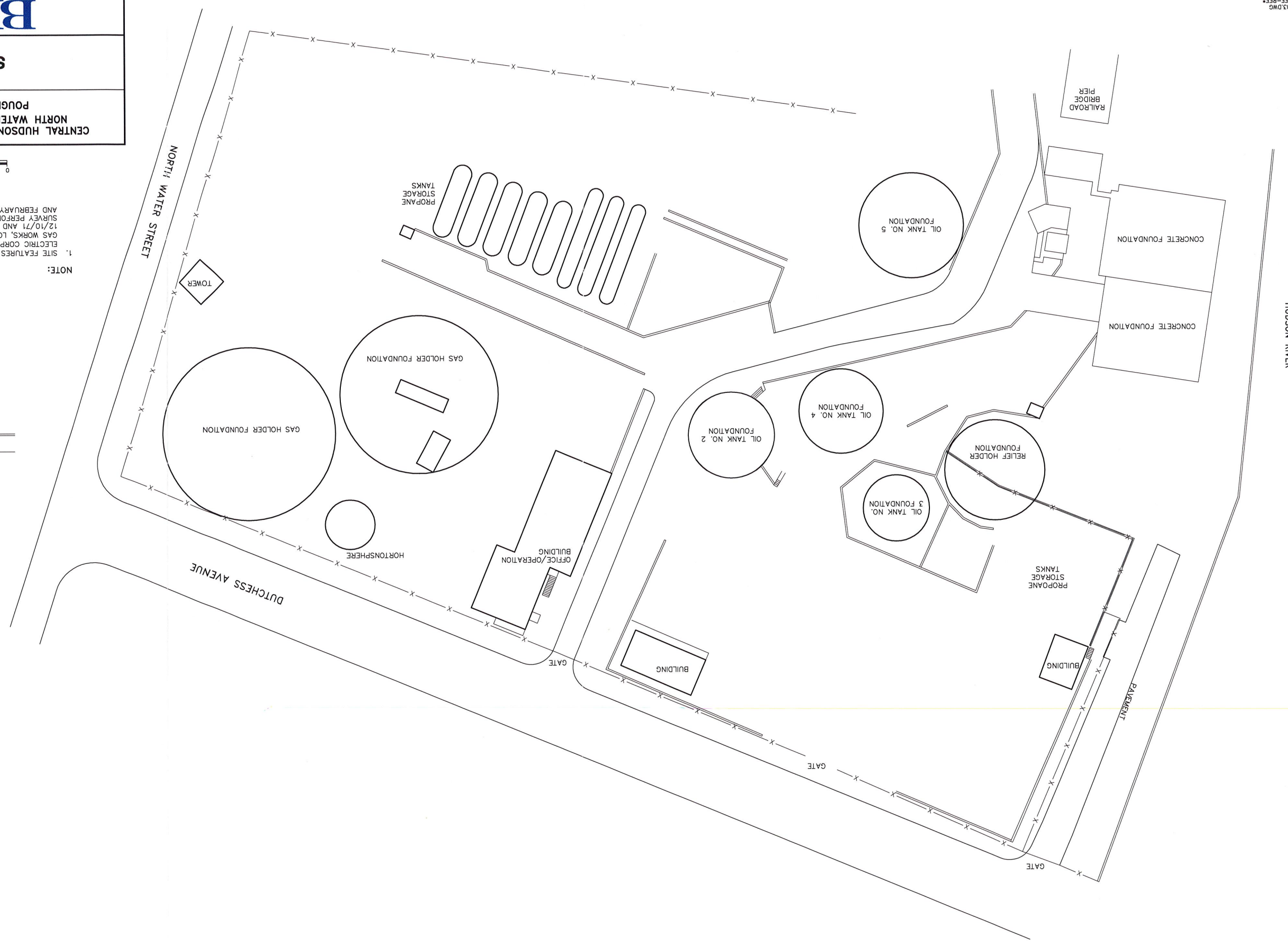
### SITE PLAN

CENTRAL HUDSON GAS & ELECTRIC CORPORATION  
NORTH WATER STREET FORMER MGP SITE  
POUGHKEEPSIE, NEW YORK



NOTE:  
1. SITE FEATURES OBTAINED FROM CENTRAL HUDSON GAS & ELECTRIC CORPORATION DRAWING TITLED "POUGHKEEPSIE GAS WORKS, LOCATION PLAN & TOPOGRAPHIC MAP, (DATED 12/10/71 AND LAST REVISED 10/21/97) AND FIELD SURVEY PERFORMED BY MORRIS ASSOCIATES IN JANUARY AND FEBRUARY 2004.

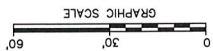
LEGEND:  
——— RETAINING WALL  
-X- CHAIN LINK FENCE





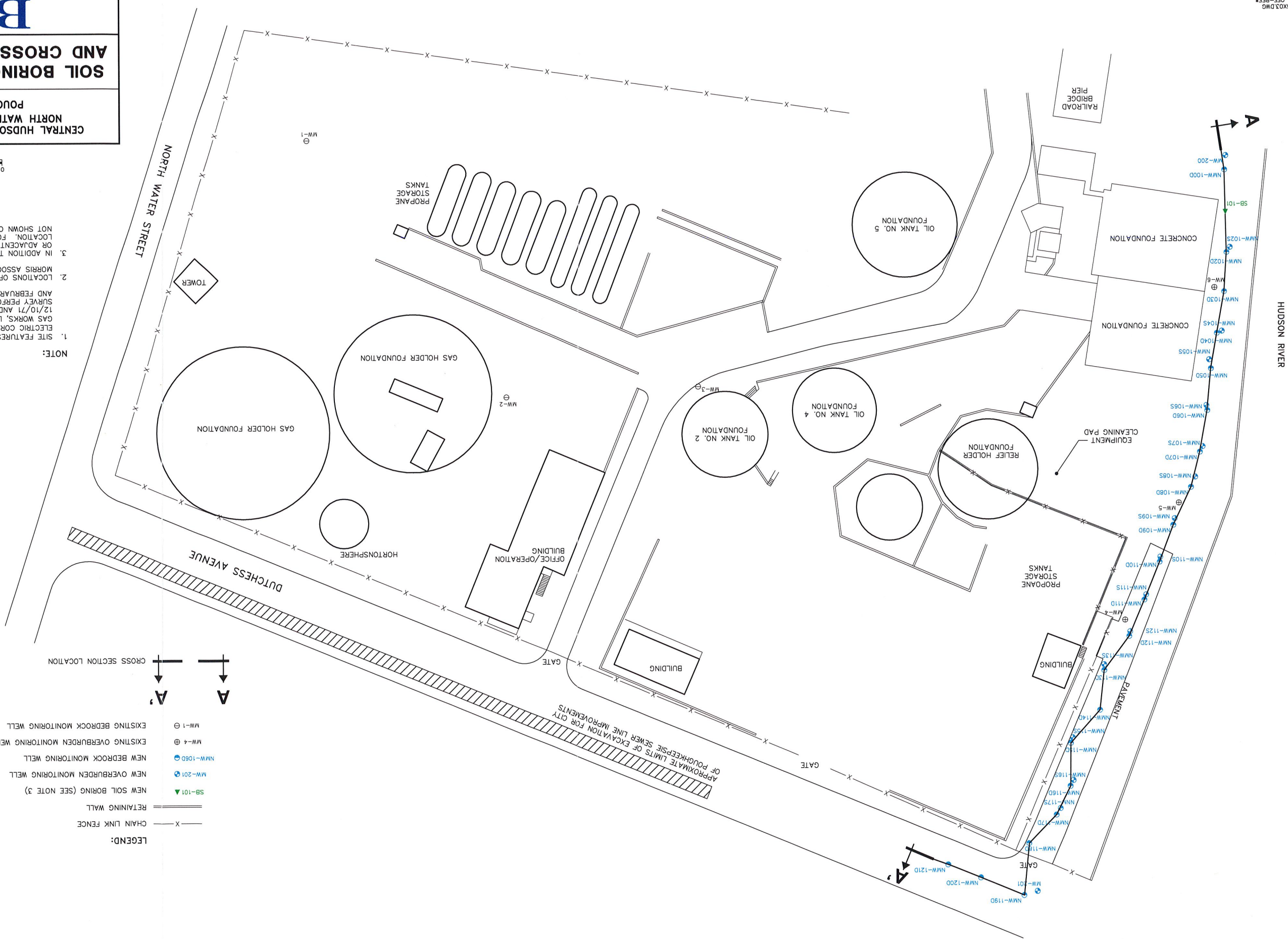
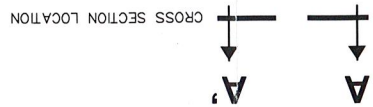
**SOIL BORING, MONITORING WELL, AND CROSS SECTION LOCATIONS**

CENTRAL HUDSON GAS & ELECTRIC CORPORATION  
 NORTH WATER STREET FORMER MGP SITE  
 POUGHKEEPSIE, NEW YORK



- NOTE:
1. SITE FEATURES OBTAINED FROM CENTRAL HUDSON GAS & ELECTRIC CORPORATION DRAWING TITLED "POUGHKEEPSIE GAS WORKS, LOCATION PLAN & TOPOGRAPHIC MAP, (DATED 12/10/71 AND LAST REVISED 10/21/97) AND FIELD SURVEY PERFORMED BY MORRIS ASSOCIATES IN JANUARY AND FEBRUARY 2004.
  2. LOCATIONS OF NEW MONITORING WELLS SURVEYED BY MORRIS ASSOCIATES IN JANUARY AND FEBRUARY 2004.
  3. IN ADDITION TO SB-101, SOIL BORINGS WERE ADVANCED AT OR ADJACENT TO EACH NEW BEDROCK MONITORING WELL. FOR CLARITY, THOSE BORING LOCATIONS ARE NOT SHOWN ON THIS FIGURE.

- LEGEND:
- SB-101 NEW SOIL BORING (SEE NOTE 3)
  - NM-201 NEW OVERBURDEN MONITORING WELL
  - NM-1050 NEW BEDROCK MONITORING WELL
  - MW-4 EXISTING OVERBURDEN MONITORING WELL
  - MW-1 EXISTING BEDROCK MONITORING WELL
  - RETAINING WALL
  - CHAIN LINK FENCE



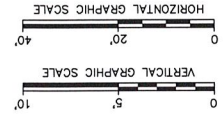
APPROXIMATE LIMITS OF EXCAVATION FOR CITY OF POUGHKEEPSIE SEWER LINE IMPROVEMENTS



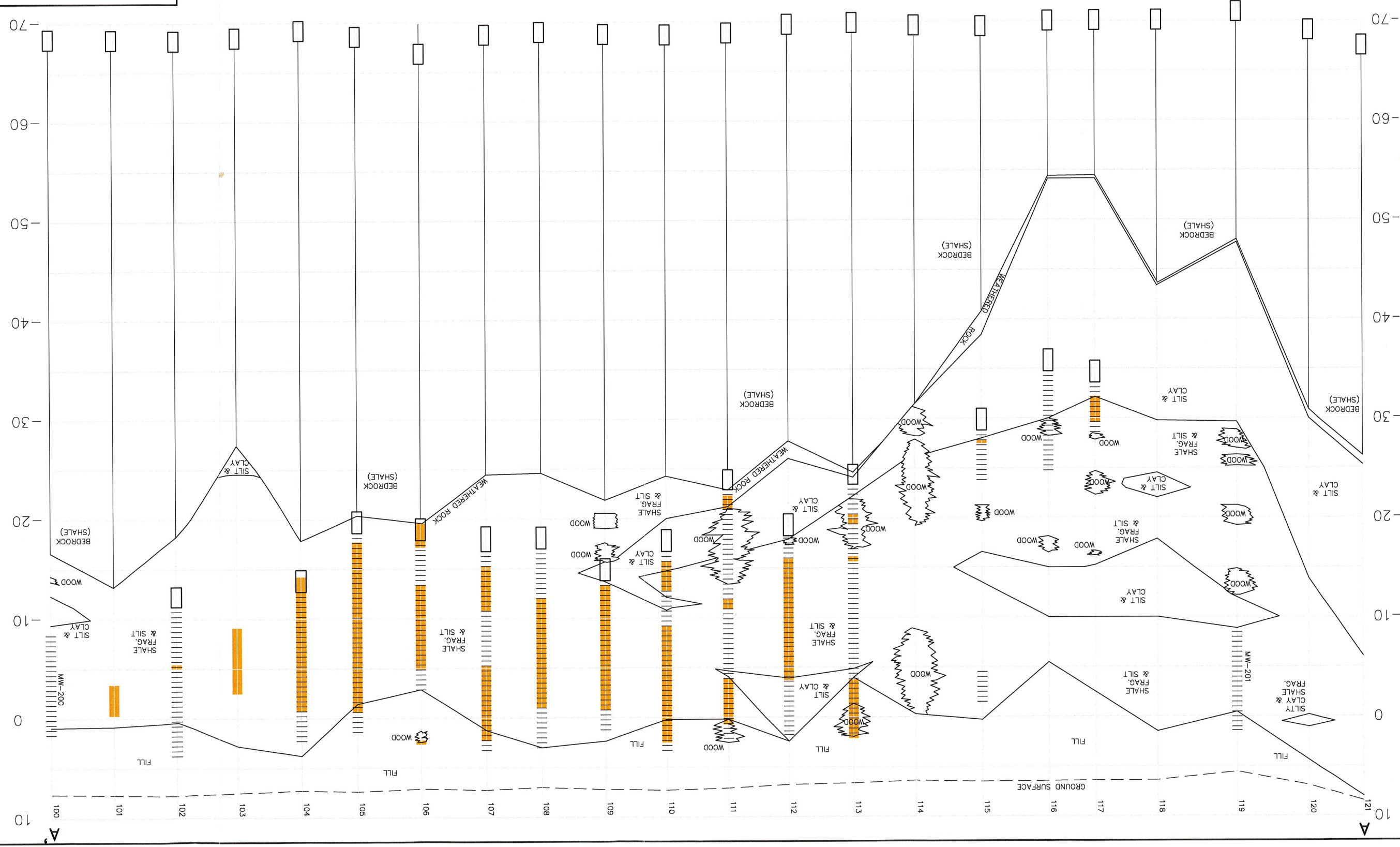


**CROSS SECTION A-A'**

**CENTRAL HUDSON GAS & ELECTRIC CORPORATION  
NORTH WATER STREET FORMER MGP SITE  
POUGHKEEPSIE, NEW YORK**



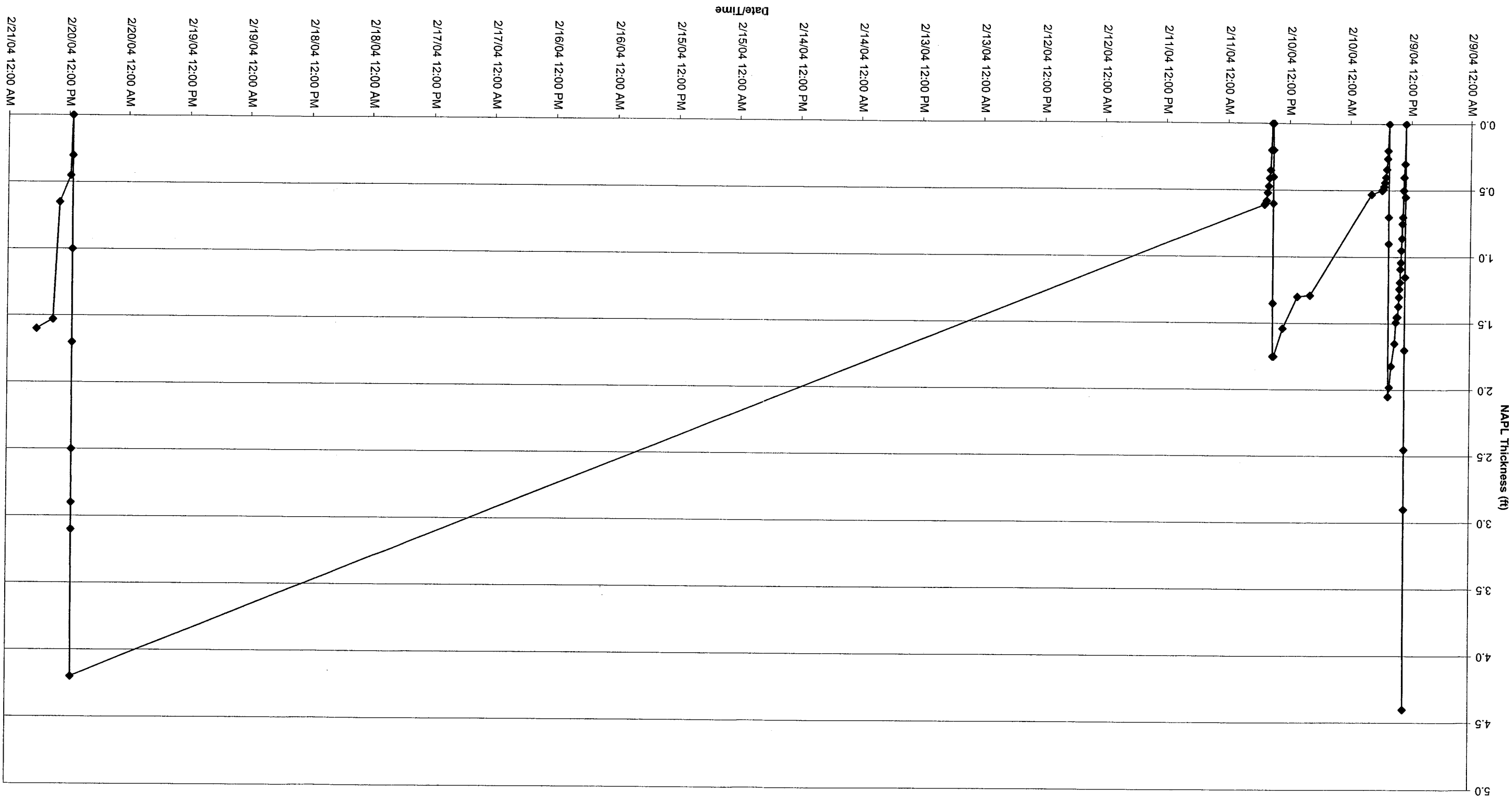
- LEGEND:**
- 101 BORING/WELL NUMBER
  - ||||| OVERBURDEN WELL
  - ||||| OVERBURDEN WELL SCREEN
  - OVERBURDEN WELL SUMP
  - NAPL-IMPACTED MATERIAL
  - OPEN BEDROCK CORE HOLE
  - BEDROCK WELL SUMP





Central Hudson Gas & Electric Corporation  
 North Water Street Former MGP Site  
 Poughkeepsie, New York  
 NMW-117S NAPL Recovery Test Data

Figure 8





**Client:**  
Central Hudson Gas & Electric Corporation

**Well/Boring ID:** SB-116 / NMW-116S

**Site Location:**  
North Water Street Former  
MGP Site  
Poughkeepsie, NY

**Borehole Depth:** 60.7' below grade

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
60-60		29	58-60	ND	7				Brown SILT and CLAY, trace Organics, faint odor, moderately plastic, wet.	
					8	18	ND			
					10					
					20					
		30	60-62	ND	21 50/0.2	NA	ND		SHALE fragments.	
65-65										
70-70										
75-75										



**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.

**Date Start/Finish:** 11/19/03 - 12/10/03  
**Drilling Company:** Parratt-Wolff, Inc.  
**Driller's Name:** Ron Bush/Mickey Marshall  
**Drilling Method:** Fluid Rotary  
**Bit Size:** 5-7/8" Rollerbit  
**Auger Size:** 8.25" ID  
**Rig Type:** CME-55 Rig  
**Sampling Method:** NA

**Northing:** NA  
**Easting:** NA  
**Casing Elevation:** NA  
**Borehole Depth:** 77.5' below grade  
**Surface Elevation:** NA  
**Geologist:** David Cornell

**Well/Boring ID:** NMW-116D  
**Client:** Central Hudson Gas & Electric Corporation  
**Location:** North Water Street Former MGP Site  
 Poughkeepsie, NY

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 Inches	N - Value	FID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0								ASPHALT.	12" Flushmount Curb Box with Concrete Pad
		1	0-2	1.1	13 14 9	27	ND		Gray-brown Silty fine SAND, some to little Cinders and fine to medium subangular Gravel, trace Ash, non-plastic, moist.	6" Locking J-Plug
		2	2-4	1.0	7 12 15 15	27	ND		Auger through possible Concrete.	Bentonite/Cement Grout (0.5' - 63' bgs)
5	-5	3	4-6	0.6	3 3	3	ND		Red-brown to gray BRICK fragment and SILT, little fine Sand and fine to medium subangular Gravel, non-plastic, wet.	6" Threaded Black Pipe (Casing) (0 - 63' bgs)
		4	6-8	0.8	28 35 9 5	44	ND		Dark brown Silty fine to medium subangular GRAVEL, some Concrete chips, little fine Sand, non-plastic, saturated.	
		5	8-10	1.0	2 2 1	3	2.4		Brown SILT and fine SAND, little fine subrounded Gravel, trace Shale fragments and Cinders, trace Clay, faint degraded petroleum-like odor, non-plastic, saturated.	
10	-10	6	10-12	1.1	2 3 3 5 3	8	ND		Gray-brown fine Sandy SILT, little fine Gravel, trace CLAY, non-plastic, saturated.	
		7	12-14	0.8	3 9 3	12	ND		Red BRICK fragments, sheen on slough, non-plastic, saturated.	
		8	14-16	0.8	2 3 6 7 5	13	ND		Gray SHALE fragments, trace Silt, non-plastic, saturated.	
15	-15	8	16-18	1.4	3 1 1 1	2	ND		Brown-gray SILT and CLAY, trace Organics (Wood and Roots), trace Shell fragments, moderately plastic, wet to saturated.	



**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.  
 Geologic information from SB-116.

**Client:**  
Central Hudson Gas & Electric Corporation

**Well/Boring ID:** NMW-116D

**Site Location:**  
North Water Street Former  
MGP Site  
Poughkeepsie, NY

**Borehole Depth:** 77.5' below grade

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
20-20		9	18-20	1.3	1	2	ND		Brown-gray SILT and CLAY, trace Organics (Wood and Roots), trace Shell fragments, moderately plastic, wet to saturated.	Bentonite/Cement Grout (0.5' - 63' bgs)
					1					
					1					
					1					
25-25		10	20-22	1.3	4	5	ND		Trace Shale fragments below 20' bgs.	6" Threaded Black Pipe (Casing) (0 - 63' bgs)
					1					
					4					
					10					
30-30		11	22-24	1.0	5	10	ND		Gray SHALE fragments, little Silt, non-plastic, saturated. Wood from 22.7' - 22.9' bgs.	
					5					
					5					
					5					
35-35		12	24-26	0.9	8	26	ND		Brown WOOD, non-plastic, saturated. Gray SHALE fragments, some to little Silt, non-plastic, saturated. Gray SHALE fragments, trace Silt, non-plastic, saturated.	
					11					
					15					
					12					
30-30		13	26-28	0.5	8	18	ND		Little Silt below 28' bgs.	
					12					
					6					
					2					
30-30		14	28-30	0.8	8	22	ND			
					10					
					12					
					20					
35-35		15	30-32	1.2	8	14	ND			
					7					
					7					
					7					
35-35		16	32-34	1.0	8	18	ND			
					7					
					11					
					10					
35-35		17	34-36	1.5	8	27	ND		WOOD, non-plastic, saturated.	
					11					
					16					
					21					
35-35		18	36-38	0.9	7	8	ND		Brown SILT and CLAY, trace Organics, faint odor, moderately plastic, wet.	
					4					
					4					
					6					



**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect. Geologic information from SB-116.



DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
40 - 40		19	38-40	1.5	2 3 3 2	6	ND		Brown SILT and CLAY, trace Organics, faint odor, moderately plastic, wet.	
		20	40-42	1.8	2 3 3 3	6	6.2 4.2 ND		Faint odor below 40' bgs.	
		21	42-44	2.0	1 2 2 2	4	8.2 7.1 4.2		Faint odor, Root scars, sheen, and NAPL on slough below 42' bgs.	
		22	44-46	2.0	1 1 2 2	3	19 37 26.5		Trace fine to medium Gravel, faint to moderate odor, NAPL on slough below 44' bgs.	
45 - 45		23	46-48	1.9	2 1 1 2	2	26.3 19.2		Faint odor, NAPL on slough from 46' - 50' bgs.	
		24	48-50	2.0	1 1 2 2	3	14.2 16.1		Faint odor below 50' bgs.	
		25	50-52	1.7	5 6 5 6	11	16.1 13.2		Faint odor below 50' bgs.	
50 - 50		26	52-54	1.4	7 7 5 4	12	ND		Faint odor below 50' bgs.	
		27	54-56	1.0	5 4 4 4	8	ND		Faint odor below 50' bgs.	
55 - 55		28	56-58		4 3 3 6	6	ND		Faint odor below 50' bgs.	



Remarks: bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.  
Geologic information from SB-116.

Client:  
Central Hudson Gas & Electric Corporation

Well/Boring ID: NMW-116D

Site Location:  
North Water Street Former  
MGP Site  
Poughkeepsie, NY

Borehole Depth: 77.5' below grade

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
60-60		29	58-60		7 8 10 20	18	ND	[Pattern]	Brown SILT and CLAY, trace Organics, faint odor, moderately plastic, wet.	<p>Bentonite/Cement Grout (0.5' - 63' bgs)</p> <p>6" Threaded Black Pipe (Casing) (0 - 63' bgs)</p> <p>5-7/8" Open Rock Hole (63' - 77.5' bgs)</p>
		30	60-62		21 50/0.2	NA	ND	[Pattern]	SHALE fragments.	
65-65								[Pattern]	Fluid rotary drilling through bedrock from 62' - 77.5' bgs. Trace sheens observed throughout during bedrock drilling.	
70-70								[Pattern]		
75-75								[Pattern]		<p>Rubber Shale Trap</p> <p>4" Steel Sump (75.5' - 77.5' bgs)</p> <p>Grout (75.5' - 77.5' bgs)</p>

**BBL**  
BLASLAND, BOUCK & LEE, INC.  
engineers & scientists

Remarks: bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.  
Geologic information from SB-116.

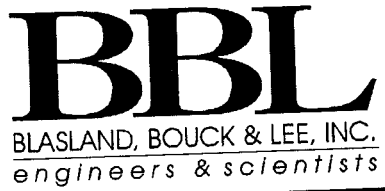
Date Start/Finish: 11/17/03 - 12/9/03  
 Drilling Company: Parratt-Wolff, Inc.  
 Driller's Name: Ron Bush  
 Drilling Method: Hollow Stem Auger  
 Bit Size: NA  
 Auger Size: 4.25" ID / 8.25" ID  
 Rig Type: CME-55 Rig  
 Sampling Method: 2" OD x 2'

Northing: NA  
 Easting: NA  
 Casing Elevation: NA  
 Borehole Depth: 60.9' below grade  
 Surface Elevation: NA  
 Geologist: David Cornell

Well/Boring ID: SB-117 / NMW-117S  
 Client: Central Hudson Gas & Electric Corporation  
 Location: North Water Street Former MGP Site  
 Poughkeepsie, NY

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 inches	N - Value	FID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0							ASPHALT.		12" Flushmount Curb Box with Concrete Pad
		1	0-2	1.4	24 20 30	44	ND	x x x x x x x x x	Dark gray CINDERS, some Concrete and Brick fragments, little fine Sand, fine to medium subangular Gravel, and Ash, non-plastic, moist.	6" Locking J-Plug Cement/Bentonite Grout (1.0' - 29' bgs)
		2	2-4	0.7	9 11 50/0.3	NA	ND	x x x x x x x x x	Faint degraded petroleum-like odor in shoe, wet below 4.0' bgs.	6" PVC Sch. 40 Riser (0.5' - 35' bgs)
5	-5	3	4-6	0.9	2 4 10 6	14	ND	x x x x x x x x x	Faint petroleum-like odor, saturated below 6.0' bgs.	
		4	6-8	1.3	5 8 7 1	15	0.9	x x x x x x x x x		
		5	8-10	1.0	6 7 21 5	28	1.4 3.0	x x x x x x x x x	Dark gray fine Sandy SILT and SHALE fragments, trace sheen, faint odor, non-plastic, saturated.	
10	-10	6	10-12	1.1	6 11 4 10	15	2.4 4.4	x x x x x x x x x	Trace Brick fragments, trace sheen, faint odor below 10' bgs.	
		7	12-14	0.9	6 2 8 2	10	0.2 ND	x x x x x x x x x	Gray SHALE fragments and SILT, trace fine Sand, non-plastic, saturated.	
		8	14-16	0.6	4 2 1 1	3	ND	x x x x x x x x x	Dark gray SHALE fragments, trace to little Silt, non-plastic, wet.	
15	-15								Gray-brown SILT and CLAY, trace Organics, moderately plastic, saturated.	
		8	16-18	1.6	1 1 0 1	1	ND	x x x x x x x x x	Gray-brown Silty CLAY, trace Organics (Roots, Shell fragments), trace fine Gravel, moderately plastic, wet.	

Remarks: bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.



Site Location:

North Water Street Former  
MGP Site  
Poughkeepsie, NY

Borehole Depth: 60.9' below grade

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
20-20		9	18-20	0.4	1	1	ND		Gray-brown Silty CLAY, trace Organics (Roots, Shell fragments), trace fine Gravel, moderately plastic, wet to saturated.	
					0				Saturated below 20' bgs.	
		10	20-22	1.7	1	2	ND		Dark gray SILT and SHALE fragments, trace Clay, non-plastic, saturated.	
					1					
		11	22-24	0.9	2	10	ND		WOOD, non-plastic, saturated.	
					6					
25-25		12	24-26	0.8	4	14	ND		Gray SHALE fragments, little Silt, trace Clay, non-plastic, saturated.	
					6					
		13	26-28	1.1	7	12	ND		WOOD, non-plastic, saturated.	
					5					
30-30		14	28-30	1.3	6	15	ND		WOOD, non-plastic, saturated.	
					5					
		15	30-32	1.3	12	65	ND		Dark gray SHALE fragments, little to trace fine Sand and Silt, non-plastic, saturated.	
					27					
		16	32-34	1.0	7	11	ND		WOOD, non-plastic, saturated.	
					6					
35-35		17	34-36	1.8	5	14	ND		Dark gray SHALE fragments, trace Silt and Clay, non-plastic, saturated.	
					6					
		18	36-38	1.0	8	10	183		Red-brown NAPL throughout below 36' bgs.	
					5					
					2		149			
					8					
					55					

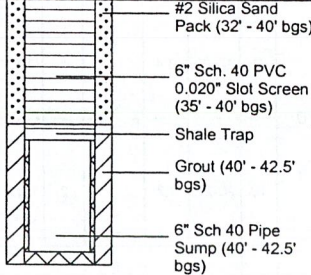


Remarks: bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.

**Site Location:**

North Water Street Former  
MGP Site  
Poughkeepsie, NY

**Borehole Depth:** 60.9' below grade

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction		
40 - 40		19	38-40	1.2	9	12	285	[Pattern]	Dark gray SHALE fragments, trace Silt and Clay, some NAPL, non-plastic, saturated.	 <ul style="list-style-type: none"> <li>#2 Silica Sand Pack (32' - 40' bgs)</li> <li>6" Sch. 40 PVC 0.020" Slot Screen (35' - 40' bgs)</li> <li>Shale Trap</li> <li>Grout (40' - 42.5' bgs)</li> <li>6" Sch 40 Pipe Sump (40' - 42.5' bgs)</li> </ul>		
					6		31	[Pattern]	Gray-brown SILT and CLAY, trace Organics, faint to moderate odor, moderately plastic, wet to saturated.			
					6		34	[Pattern]				
					2		8.8	[Pattern]				
					2			4	[Pattern]			
					2				[Pattern]			
2	9.7	[Pattern]										
45 - 45		20	40-42	1.7	2	4	8.8	[Pattern]	Gray-brown SILT and CLAY, trace Roots, Root scars, and Shell fragments, moderately plastic, saturated.			
					2			[Pattern]				
					2			[Pattern]				
					1			10.7			[Pattern]	
					1						2	9.8
					1					4.2		[Pattern]
50 - 50		21	42-44	1.9	1	4	ND	[Pattern]	Decreasing Organic content with depth, wet below 44' bgs.			
					2			[Pattern]				
					2			[Pattern]				
					1			3		[Pattern]		
					2					ND	[Pattern]	
					1						[Pattern]	
55 - 55		22	44-46	2.0	1	4	ND	[Pattern]	Gray fine Gravel layer (Shale) at 50.7' bgs, wet to saturated.			
					2			[Pattern]				
					2			[Pattern]				
					1			12		[Pattern]		
					3					ND	[Pattern]	
					7						[Pattern]	
55 - 55		23	46-48	2.0	1	5	ND	[Pattern]	Dark gray fine SAND and SHALE fragments, some Silt, non-plastic, wet.			
					1			[Pattern]				
					1			[Pattern]				
					2			5		[Pattern]		
					5					ND	[Pattern]	
					4						[Pattern]	
55 - 55		24	48-50	2.0	1	5	ND	[Pattern]	Gray-brown Silty CLAY, trace Shale chips, moderately plastic, wet.			
					2			[Pattern]				
					2			[Pattern]				
					3			5		[Pattern]		
					2					ND	[Pattern]	
					2						[Pattern]	
55 - 55		25	50-52	2.0	1	5	ND	[Pattern]	Gray-brown Silty CLAY, plastic, wet.			
					2			[Pattern]				
					2			[Pattern]				
					3			5		[Pattern]		
					2					ND	[Pattern]	
					2						[Pattern]	
55 - 55		26	52-54	2.0	3	12	ND	[Pattern]	Dark gray Silty CLAY, little Shale fragments, moderately plastic, wet.			
					7			[Pattern]				
					5			[Pattern]				
					4			12		[Pattern]		
					2					ND	[Pattern]	
					2						[Pattern]	
55 - 55		27	54-56	2.0	2	12	ND	[Pattern]	Dark gray Silty CLAY, little Shale fragments, moderately plastic, wet.			
					3			[Pattern]				
					2			[Pattern]				
					2			12		[Pattern]		
					5					ND	[Pattern]	
					6						[Pattern]	
55 - 55		28	56-58	0.7	6	12	ND	[Pattern]	Dark gray Silty CLAY, little Shale fragments, moderately plastic, wet.			
					6			[Pattern]				
					7			[Pattern]				

**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.



**Client:**  
Central Hudson Gas & Electric Corporation

**Well/Boring ID:** SB-117 / NMW-117S

**Site Location:**  
North Water Street Former  
MGP Site  
Poughkeepsie, NY

**Borehole Depth:** 60.9' below grade

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
60 - 60		29	58-60	1.8	4	9	ND		Dark gray Silty CLAY, little Shale fragments, moderately plastic, wet to saturated. Shale in shoe from 58.4' - 59.8' bgs.	
					4					
					5					
					7					
60 - 60		30	60-62	0.9	4	NA	ND		Gray Silty CLAY, some to little fine to medium Gravel (Shale), trace fine Sand, moderately plastic, saturated.	
					50/0.4					
65 - 65									Gray SHALE fragments.	
70 - 70									Refusal at 60.9' bgs (bedrock).	
75 - 75										



**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.

Date Started: 12/10/03  
 Drilling Company: Parratt-Wolff, Inc.  
 Driller's Name: Doug Thoma/Rodney Fisk  
 Drilling Method: Fluid Rotary  
 Bit Size: 5-7/8" Rollerbit  
 Auger Size: 8.25" ID  
 Rig Type: CME-55 Rig  
 Sampling Method: NA

Northing: NA  
 Easting: NA  
 Casing Elevation: NA  
 Borehole Depth: 77.5' below grade  
 Surface Elevation: NA  
 Geologist: David Cornell

Well/Boring ID: NMW-117D  
 Client: Central Hudson Gas & Electric Corporation  
 Location: North Water Street Former MGP Site  
 Poughkeepsie, NY

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 Inches	N - Value	FID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0								ASPHALT.	12" Flushmount Curb Box with Concrete Pad
		1	0-2	1.4	24	44	ND	X X X X	Dark gray CINDERS, some Concrete and Brick fragments, little fine Sand, fine to medium subangular Gravel, and Ash, non-plastic, moist.	6" Locking J-Plug
					20			X X X X		
					30			X X X X		
		2	2-4	0.7	9	NA	ND	X X X X	Faint degraded petroleum-like odor in shoe, wet below 4.0' bgs.	Bentonite/Cement Grout (0.5' - 63' bgs)
					11			X X X X		
					50/0.3			X X X X		
					2			X X X X		
5	-5	3	4-6	0.9	4	14	ND	X X X X	Faint petroleum-like odor, saturated below 6.0' bgs.	6" Threaded Black Pipe (Casing) (0 - 63' bgs)
					10			X X X X		
					6			X X X X		
		4	6-8	1.3	5	15	ND	X X X X		
					8			X X X X		
					7			X X X X		
					1		0.9	X X X X		
					6			X X X X	Dark gray fine Sandy SILT and SHALE fragments, trace sheen, faint odor, non-plastic, saturated.	
		5	8-10	1.0	7	28	1.4	X X X X		
					21			X X X X		
10	-10				5		3.0	X X X X	Trace Brick fragments, trace sheen, faint odor below 10' bgs.	
					6			X X X X		
		6	10-12	1.1	11	15	2.4	X X X X		
					4			X X X X		
					10		4.4	X X X X		
					6			X X X X	Gray SHALE fragments and SILT, trace fine Sand, non-plastic, saturated.	
		7	12-14	0.9	2	10	0.2	X X X X		
					8			X X X X		
					2		ND	X X X X	Dark gray SHALE fragments, trace to little Silt, non-plastic, wet.	
15	-15				4			X X X X		
		8	14-16	0.6	2	3	ND	X X X X	Gray-brown SILT and CLAY, trace Organics, moderately plastic, saturated.	
					1			X X X X		
					1			X X X X		
		8	16-18	1.6	1	1	ND	X X X X	Gray-brown Silty CLAY, trace Organics (Roots, Shell fragments), trace fine Gravel, moderately plastic, wet.	
					0			X X X X		
					1			X X X X		

**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect. Geologic information from SB-117.



DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
20-20		9	18-20	0.4	1	1	ND	[Pattern]	Gray-brown Silty CLAY, trace Organics (Roots, Shell fragments), trace fine Gravel, moderately plastic, wet to saturated.	<p>Bentonite/Cement Grout (0.5' - 63' bgs)</p> <p>6" Threaded Black Pipe (Casing) (0 - 63' bgs)</p>
					0					
					1				Saturated below 20' bgs.	
		10	20-22	1.7	1	2	ND	[Pattern]		
					1				Dark gray SILT and SHALE fragments, trace Clay, non-plastic, saturated.	
					2					
		11	22-24	0.9	6	10	ND	[Pattern]	WOOD, non-plastic, saturated.	
					4					
					4					
25-25		12	24-26	0.8	6	14	ND	[Pattern]	Gray SHALE fragments, little Silt, trace Clay, non-plastic, saturated.	
					8					
					4					
		13	26-28	1.1	6	12	ND	[Pattern]		
					7					
					5					
		14	28-30	1.3	6	15	ND	[Pattern]	WOOD, non-plastic, saturated.	
30-30					5					
		15	30-32	1.3	6	65	ND	[Pattern]		
					27					
					38					
					14				Dark gray SHALE fragments, little to trace fine Sand and Silt, non-plastic, saturated.	
		16	32-34	1.0	7	11	ND	[Pattern]		
					6					
					5					
35-35		17	34-36	1.8	5	14	ND	[Pattern]	WOOD, non-plastic, saturated.	
					6					
					8				Dark gray SHALE fragments, trace Silt and Clay, non-plastic, saturated.	
					5					
		18	36-38	1.0	4	183		[Pattern]	Red-brown NAPL throughout below 36' bgs.	
					2					
					8					
					55	149				



**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect. Geologic information from SB-117.



**Client:**  
Central Hudson Gas & Electric Corporation

**Well/Boring ID:** NMW-117D

**Site Location:**  
North Water Street Former  
MGP Site  
Poughkeepsie, NY

**Borehole Depth:** 77.5' below grade

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
40 - 40		19	38-40	1.2	9	12	285	[Pattern]	Dark gray SHALE fragments, trace Silt and Clay, some NAPL, non-plastic, saturated.	
					6		31	[Pattern]	Gray-brown SILT and CLAY, trace Organics, faint to moderate odor, moderately plastic, wet to saturated.	
					6		34	[Pattern]		
45 - 45		20	40-42	1.7	2	4	8.8	[Pattern]	Gray-brown SILT and CLAY, trace Roots, Root scars, and Shell fragments, moderately plastic, saturated.	
					2		9.7	[Pattern]		
					2			[Pattern]		
50 - 50		21	42-44	1.9	1	2	10.7	[Pattern]	Decreasing Organic content with depth, wet below 44' bgs.	
					1		9.8	[Pattern]		
					1		4.2	[Pattern]		
55 - 55		22	44-46	2.0	1	4	ND	[Pattern]		
					2			[Pattern]		
					2			[Pattern]		
60 - 60		23	46-48	2.0	1	3	ND	[Pattern]		
					2			[Pattern]		
					1			[Pattern]		
65 - 65		24	48-50	2.0	1	4	ND	[Pattern]		
					2			[Pattern]		
					2			[Pattern]		
70 - 70		25	50-52	2.0	1	4	ND	[Pattern]		
					2			[Pattern]		
					2			[Pattern]		
75 - 75		26	52-54	2.0	3	12	ND	[Pattern]		
					7			[Pattern]		Dark gray fine SAND and SHALE fragments, some Silt, non-plastic, wet.
					5			[Pattern]		Gray-brown Silty CLAY, trace Shale chips, moderately plastic, wet.
80 - 80		27	54-56	2.0	4	5	ND	[Pattern]		
					2			[Pattern]		Gray-brown Silty CLAY, plastic, wet.
					3			[Pattern]		
85 - 85		28	56-58	0.7	2	12	ND	[Pattern]		
					3			[Pattern]		Dark gray Silty CLAY, little Shale fragments, moderately plastic, wet.
					2			[Pattern]		
90 - 90					5			[Pattern]		
					6			[Pattern]		
95 - 95					6			[Pattern]		
					7			[Pattern]		

**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect. Geologic information from SB-117.



**Client:**  
Central Hudson Gas & Electric Corporation

**Well/Boring ID:** NMW-117D

**Site Location:**  
North Water Street Former  
MGP Site  
Poughkeepsie, NY

**Borehole Depth:** 77.5' below grade

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
60-60		29	58-60	1.8	4 4 5 7	9	ND		Dark gray Silty CLAY, little Shale fragments, moderately plastic, wet to saturated. Shale in shoe from 58.4' - 59.8' bgs.	<p>Bentonite/Cement Grout (0.5' - 63' bgs)</p> <p>6" Threaded Black Pipe (Casing) (0 - 63' bgs)</p>
		30	60-62	0.9	4 50/0.4	NA	ND		Gray Silty CLAY, some to little fine to medium Gravel (Shale), trace fine Sand, moderately plastic, saturated.	
									Gray SHALE fragments.	
65-65									Fluid rotary drilling through bedrock from 62' - 77' bgs. Trace to little NAPL blebs and sheens observed in drilling water during bedrock drilling.	5-7/8" Open Rock Hole (63' - 77.5' bgs)
70-70										
75-75										<p>Rubber Shale Trap</p> <p>4" Steel Sump (75.5' - 77.5' bgs)</p> <p>Grout (75.5' - 77.5' bgs)</p>



**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect. Geologic information from SB-117.

Date Start/Finish: 11/13/03  
 Drilling Company: Parratt-Wolff, Inc.  
 Driller's Name: Ron Bush/Mickey Marshall  
 Drilling Method: Hollow Stem Auger  
 Bit Size: NA  
 Auger Size: 4.25" ID / 8.25" ID  
 Rig Type: CME-55 Rig  
 Sampling Method: 2" OD x 2'

Northing: NA  
 Easting: NA  
 Casing Elevation: NA  
 Borehole Depth: 49.8' below grade  
 Surface Elevation: NA  
 Geologist: David Cornell

Well/Boring ID: SB-118  
 Client: Central Hudson Gas & Electric Corporation  
 Location: North Water Street Former MGP Site  
 Poughkeepsie, NY

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 inches	N - Value	FID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0								ASPHALT.	
		1	0-2	1.0	5 7	12	ND		Dark-gray Silty fine to medium SAND, some fine to medium angular Gravel, little Ash, non-plastic, moist.	
		2	2-4	0.9	4 6 4	10	ND		Little Brick fragments, non-plastic, moist below 2.0' bgs.	
		3	4-6	1.4	2 2 2	4	ND		Little Slag, non-plastic, moist to wet below 4.0' bgs.	
5	-5	4	6-8	1.3	3 4 4 2	8	ND		Light gray SHALE fragments, some Silt, non-plastic, wet to saturated.	Borehole backfilled with Grout to grade.
		5	8-10	1.0	4 6 10 5	16	ND		Gray SHALE fragments, some Silt, little fine Sand, trace Clay, trace sheen, faint odor, non-plastic, saturated.	
		6	10-12	0.9	4 4 3 3	7	ND		Trace sheen, faint odor, non-plastic, saturated below 8.0' bgs.	
10-10		7	12-14	1.0	4 4 4	8	ND		Gray-brown color below 10' bgs.	
		8	14-16	0.7	4 3 2 2	5	ND			
15-15		8	16-18	1.5	4 4 2 1	6	ND		Gray-brown SILT and CLAY, trace Shell fragments and Roots, trace Shale fragments, moderately plastic, wet to saturated.	



Remarks: bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.

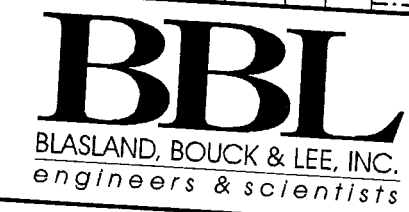
Client: Central Hudson Gas & Electric Corporation

Site Location:  
North Water Street Former  
MGP Site  
Poughkeepsie, NY

Well/Boring ID: SB-118

Borehole Depth: 49.8' below grade

DEPTH	ELEVATION	Sample Run Number	Sample Int/Type	Recovery (feet)	Blows/6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
20-20	9	18-20	0.9	1	1	2	ND		Gray-brown SILT and CLAY, trace Shell fragments and Roots, moderately plastic, wet.	
				1	1					
				1	1					
				1	1					
25-25	10	20-22	1.8	1	1	2	ND			Borehole backfilled with Grout to grade.
				1	1					
				2	2					
				2	2					
30-30	11	22-24	1.4	1	1	2	ND			
				1	1					
				1	1					
				1	1					
35-35	12	24-26	0.9	4	17	33	ND		Gray-brown subangular fine to coarse GRAVEL, little Silt, non-plastic, saturated.	
				17	16					
				18	18					
				17	17					
40-40	13	26-28	0.8	14	16	30	ND			
				16	16					
				10	10					
				4	4					
45-45	14	28-30	1.6	3	2	5	ND		Gray-brown SILT and CLAY, trace Shell fragments and Organics (Roots).	
				2	2					
				2	2					
				3	3					
50-50	15	30-32	1.4	6	33	39	ND		Dark-gray SHALE fragments, little to trace Silt, non-plastic, saturated.	
				33	39					
				10	10					
				3	3					
55-55	16	32-34	0.3	3	3	7	ND			
				4	4					
				3	3					
				37	37					
60-60	17	34-36	1.2	16	3	19	ND			
				3	3					
				2	2					
				2	2					
65-65	18	36-38	1.5	2	2	4	ND		Brown SILT, little to trace Clay and fine Sand, trace Roots and Root scars, slightly plastic, saturated.	
				2	2					
				2	2					
				3	3					



Remarks: bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.

Client:  
Central Hudson Gas & Electric Corporation

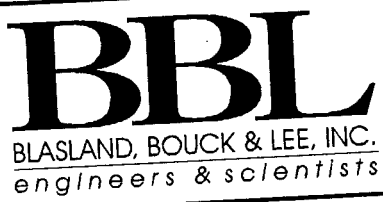
Well/Boring ID: SB-118

Borehole Depth: 49.8' below grade

Site Location:  
North Water Street Former  
MGP Site  
Poughkeepsie, NY

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
40 - 40		19	38-40	2.0	2 3 3 3	6	ND		Brown SILT, little to trace fine Sand, trace Clay, trace Roots and Root scars, slightly plastic, saturated.	
					2 2 2			Little Clay, moderately plastic below 40' bgs.		
		20	40-42	1.4	2 2 2	4	ND			
		21	42-44	1.7	2 2 3 2	5	ND			
45 - 45		22	44-46	2.0	2 2 2 3	4	ND	Brown Silty fine to medium Sand lens, non-plastic, saturated from 44.8' - 45' bgs.		
		23	46-48	2.0	2 2 3 2	5	ND	Brown SILT and CLAY, trace Organics, trace fine Sand, moderately plastic, saturated.		
		24	48-50	2.0	2 2 2 50/0.3	4	ND	SHALE fragments, non-plastic, moist to wet.		
50 - 50								Refusal at 49.8' bgs (bedrock).		
55 - 55										

Remarks: bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.



Date Start/Finish: 11/14/03 - 12/11/03  
 Drilling Company: Paratt-Wolff, Inc.  
 Driller's Name: Doug Thoma  
 Drilling Method: Fluid Rotary  
 Bit Size: 5-7/8" Rollerbit  
 Auger Size: 8.25" ID  
 Rig Type: CME-55 Rig  
 Sampling Method: NA

Northing: NA  
 Easting: NA  
 Casing Elevation: NA  
 Borehole Depth: 77.5' below grade  
 Surface Elevation: NA  
 Geologist: David Cornell

Well/Boring ID: NMW-118D  
 Client: Central Hudson Gas & Electric Corporation  
 Location: North Water Street Former MGP Site  
 Poughkeepsie, NY

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 Inches	N - Value	FID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0								ASPHALT.	12" Flushmount Curb Box with Concrete Pad
		1	0-2	1.0	5 7	12	ND		Dark-gray Silty fine to medium SAND, some fine to medium angular Gravel, little Ash, non-plastic, moist.	6" Locking J-Plug
					5 4				Little Brick fragments, non-plastic, moist below 2.0' bgs.	
		2	2-4	0.9	6 4 4	10	ND		Little Slag, non-plastic, moist to wet below 4.0' bgs.	Bentonite/Cement Grout (0.5' - 52' bgs)
					2 2 2				Light gray SHALE fragments, some Silt, non-plastic, wet to saturated.	
5	-5	3	4-6	1.4	2 2 2	4	ND		Gray SHALE fragments, some Silt, little fine Sand, trace Clay, trace sheen, faint odor, non-plastic, saturated.	6" Threaded Black Pipe (Casing) (0 - 52' bgs)
					3 4 4 2				Trace sheen, faint odor, non-plastic, saturated below 8.0' bgs.	
		4	6-8	1.3	4 4 2	8	2.8			
					4 6 10 5				Gray-brown color below 10' bgs.	
10	-10	5	8-10	1.0	4 10 5	16	ND			
					4 4 3 3					
		6	10-12	0.9	4 4 4	7	ND			
					4 4 4					
		7	12-14	1.0	4 4 4	8	ND			
					5 3 2 2					
15	-15	8	14-16	0.7	4 3 2 2	5	ND			
					4 4 2 1				Gray-brown SILT and CLAY, trace Shell fragments and Roots, trace Shale fragments, moderately plastic, wet to saturated.	
		8	16-18	1.5	4 4 2 1	6	ND			


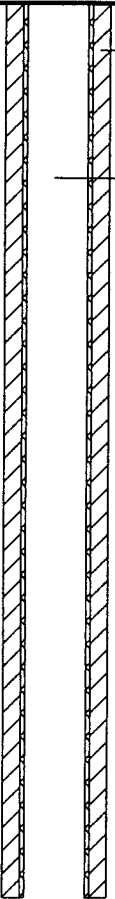
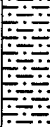
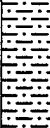

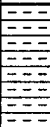
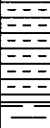

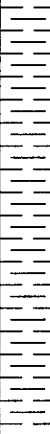


Remarks: bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect. Geologic information from SB-118.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
20-20		9	18-20	0.9	1	2	ND		Gray-brown SILT and CLAY, trace Shell fragments and Roots, moderately plastic, wet.	
					1					
					1					
					1					
25-25		10	20-22	1.8	1	2	ND			
					1					
					2					
					2					
30-30		11	22-24	1.4	1	2	ND			
					1					
					1					
					1					
35-35		12	24-26	0.9	4	33	ND		Gray-brown subangular fine to coarse GRAVEL, little Silt, non-plastic, saturated.	
					17					
					16					
					18					
30-30		13	26-28	0.8	17	30	ND			
					14					
					16					
					10					
30-30		14	28-30	1.6	4	5	ND		Gray-brown SILT and CLAY, trace Shell fragments and Organics (Roots).	
					3					
					2					
					2					
35-35		15	30-32	1.4	6	39	ND		Dark-gray SHALE fragments, little to trace Silt, non-plastic, saturated.	
					33					
					10					
					3					
35-35		16	32-34	0.3	3	7	ND			
					3					
					4					
					3					
35-35		17	34-36	1.2	37	19	ND			
					16					
					3					
					2					
35-35		18	36-38	1.5	2	4	ND		Brown SILT, little to trace Clay and fine Sand, trace Roots and Root scars, slightly plastic, saturated.	
					2					
					2					
					3					



Remarks: bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect. Geologic information from SB-118.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction	
40-40		19	38-40	2.0	2	6	ND		Brown SILT, little to trace fine Sand, trace Clay, trace Roots and Root scars, slightly plastic, saturated.		
					3						Bentonite/Cement Grout (0.5' - 52' bgs)
					3						
45-45		20	40-42	1.4	2	4	ND		Little Clay, moderately plastic below 40' bgs.	6" Threaded Black Pipe (Casing) (0 - 52' bgs)	
					2						
					2						
50-50		21	42-44	1.7	2	5	ND				
					2						
					3						
55-55		22	44-46	2.0	2	4	ND		Brown Silty fine to medium SAND lens, non-plastic, saturated from 44.8' - 45' bgs.		
					2						
					3						
55-55		23	46-48	2.0	2	5	ND		Brown SILT and CLAY, trace Organics, trace fine Sand, moderately plastic, saturated.		
					2						
					3						
55-55		24	48-50	2.0	2	4	ND				
					2						
					2						
55-55					50/0.3				SHALE fragments, non-plastic, moist to wet. Auger to 51' to confirm Rock.		
55-55									Fluid rotary drilling through bedrock from 51' - 77.5' bgs. Trace sheens observed in drilling water during bedrock drilling.	5-7/8" Open Rock Hole (52' - 77.5' bgs)	



Remarks: bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect. Geologic information from SB-118.



DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
60-60									Fluid rotary drilling through bedrock from 51' - 77.5' bgs. Trace sheens observed in drilling water during bedrock drilling.	<p>5-7/8" Open Rock Hole (52' - 77.5' bgs)</p> <p>Rubber Shale Trap</p> <p>4" Steel Sump (75.5' - 77.5' bgs)</p> <p>Grout (75.5' - 77.5' bgs)</p>
65-65										
70-70										
75-75										



**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect. Geologic information from SB-118.

Date Start/Finish: 11/19/03  
 Drilling Company: Parratt-Wolff, Inc.  
 Driller's Name: Ron Bush/Rodney Fisk  
 Drilling Method: Hollow Stem Auger  
 Bit Size: NA  
 Auger Size: 4.25" ID / 8.25" ID  
 Rig Type: CME-55 Rig  
 Sampling Method: 2" OD x 2'

Northing: NA  
 Easting: NA  
 Casing Elevation: NA  
 Borehole Depth: 53.5' below grade  
 Surface Elevation: NA  
 Geologist: David Cornell

Well/Boring ID: SB-119 / MW-201  
 Client: Central Hudson Gas & Electric Corporation  
 Location: North Water Street Former MGP Site  
 Poughkeepsie, NY

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 inches	N - Value	FID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0								ASPHALT.	
		1	0-2	0.8	3	NA	ND	X X X X	Dark gray CINDERS and fine to medium SAND, little Slag and Brick, non-plastic, moist.	
		2	2-4	1.2	6 7 4	13	ND		Gray-brown SHALE fragments, some fine to medium Sand and Silt, trace Cinders and Brick fragments, non-plastic, saturated.	
		3	4-6	0.7	4 3 2	7	ND		Gray SHALE fragments, little Silt, trace Clay, non-plastic, saturated.	
5	-5	4	6-8	1.1	2 3 2	5	1.3		Gray Silty fine SAND and SHALE fragments, trace Brick fragments, non-plastic, saturated.	
		5	8-10	0.8	2 3 4	6	ND			
10	-10	6	10-12	1.0	4 3 2	9	ND		Brown-gray SHALE fragments, some Silt and fine to medium Sand, trace Clay, non-plastic, saturated.	
		7	12-14	1.4	2 4 5 2	9	ND			
15	-15	8	14-16	0.9	2 2 1 1	3	ND		Brown Silty CLAY, trace Organics (Roots), trace Shell fragments, moderately plastic, moist.	
		8	16-18	1.8	1 1 2 2	3	ND		Wood in spoon shoe, moist to wet below 16' bgs.	

Remarks: bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.



Site Location:  
 North Water Street Former  
 MGP Site  
 Poughkeepsie, NY

Borehole Depth: 53.5' below grade

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
20 - 20	9	18-20	0.4	1	7	ND			WOOD, non-plastic, wet.	
				2						
				5						
25 - 25	10	20-22	1.2	2	12	ND			Dark gray SHALE fragments, trace to little fine Sand and Silt, non-plastic, saturated.	
				5						
				7						
				11						
25 - 25	11	22-24	0.9	10	13	ND			Gray-brown color below 22' bgs.	
				7						
				6						
				6						
25 - 25	12	24-26	1.6	6	14	ND			WOOD, non-plastic, saturated.	
				7						
				7						
30 - 30	13	26-28	0.7	15	39	ND			WOOD, non-plastic, saturated.	
				28						
				11						
30 - 30	14	28-30	0.0	1	5	ND			No Recovery.	
				1						
				4						
				4						
30 - 30	15	30-32	1.1	26	18	ND			Gray to dark gray SHALE fragments, trace fine Sand and Silt, non-plastic, saturated.	
				12						
				6						
35 - 35	16	32-34	0.9	9	5	ND			WOOD, non-plastic, saturated.	
				4						
				2						
				3						
35 - 35	17	34-36	0.8	4	5	ND			Gray SHALE fragments, trace fine Sand and Silt, non-plastic, saturated.	
				3						
				2						
				2						
35 - 35	18	36-38	1.5	3	8	ND			Brown-gray SILT and CLAY, moderately plastic, wet.	
				2						
				2						
35 - 35	18	36-38	1.5	3	8	ND			Brown-gray SILT, some Clay, trace Organics and fine Sand, moderately plastic to slightly plastic, wet.	
				2						
				3						



Remarks: bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.

**Client:**  
Central Hudson Gas & Electric Corporation

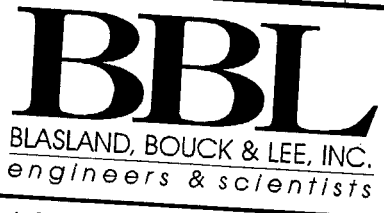
**Well/Boring ID:** SB-119 / MW-201

**Site Location:**  
North Water Street Former  
MGP Site  
Poughkeepsie, NY

**Borehole Depth:** 53.5' below grade

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
40-40		19	38-40	1.0	1	4	ND		Brown-gray SILT, some Clay, little Organics (Roots), trace fine Sand, moderately plastic to slightly plastic, wet.	
					2					
					2					
40-40		20	40-42	1.7	1	5	ND		Gray-brown SILT and CLAY, trace Organics (Roots), moderately plastic, wet.	
					3					
					2					
45-45		21	42-44	1.9	2	4	ND		Trace fine Sand below 42.2' bgs.	
					2					
					2					
45-45		22	44-46	2.0	2	4	ND		Brown-gray Silty CLAY, trace Organics, moderately plastic to plastic, wet.	
					2					
					3					
50-50		23	46-48	2.0	1	3	ND		Moderately plastic, wet to moist below 46' bgs.	
					2					
					2					
50-50		24	48-50	1.7	1	4	ND		Brown-gray SILT and CLAY, trace Organics, moderately plastic, wet.	
					2					
					3					
55-55		25	50-52	2.0	2	4	ND		Little Shale fragments below 52.5' bgs.	
					2					
					2					
55-55		26	52-54	1.5	7	NA	ND		Gray SHALE, non-plastic, moist.	
					2					
55-55				50/0.5					Refusal at 53.5' bgs (bedrock).	

**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.



**Date Start/Finish:** 11/19/03 - 12/11/03  
**Drilling Company:** Parratt-Wolff, Inc.  
**Driller's Name:** Doug Thoma/Rodney Fisk  
**Drilling Method:** Fluid Rotary  
**Bit Size:** 5-7/8" Rollerbit  
**Auger Size:** 8.25" ID  
**Rig Type:** CME-55 Rig  
**Sampling Method:** NA

**Northing:** NA  
**Easting:** NA  
**Casing Elevation:** NA  
  
**Borehole Depth:** 77.5' below grade  
**Surface Elevation:** NA  
  
**Geologist:** David Cornell

**Well/Boring ID:** NMW-119D  
  
**Client:** Central Hudson Gas & Electric Corporation  
  
**Location:** North Water Street Former MGP Site  
 Poughkeepsie, NY

DEPTH	ELEVATION	Sample Run Number	Sample Int/Type	Recovery (feet)	Blows/6 Inches	N - Value	FID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0							[Pattern]	ASPHALT.	<p>           12" Flushmount Curb Box with Concrete Pad            6" Locking J-Plug            Bentonite/Cement Grout (0.5' - 55.5' bgs)            6" Threaded Black Pipe (Casing) (0 - 55.5' bgs)         </p>
		1	0-2	0.8	3	NA	ND	[Pattern]	Dark gray CINDERS and fine to medium SAND, little Slag and Brick, non-plastic, moist.	
					3			[Pattern]	Gray-brown SHALE fragments, some fine to medium Sand and Silt, trace Cinders and Brick fragments, non-plastic, saturated.	
		2	2-4	1.2	7	13	ND	[Pattern]	Gray SHALE fragments, little Silt, trace Clay, non-plastic, saturated.	
					4			[Pattern]	Gray SHALE fragments, little Silt, trace Clay, non-plastic, saturated.	
5	-5	3	4-6	0.7	4	7	ND	[Pattern]	Gray Silty fine SAND and SHALE fragments, trace Brick fragments, non-plastic, saturated.	
					3			[Pattern]		
		4	6-8	1.1	2	5	1.3	[Pattern]	Gray Silty fine SAND and SHALE fragments, trace Brick fragments, non-plastic, saturated.	
					2			[Pattern]		
		5	8-10	0.8	3	6	ND	[Pattern]		
					4			[Pattern]		
10	-10	6	10-12	1.0	3	9	ND	[Pattern]	Brown-gray SHALE, some Silt and fine to medium Sand, trace Clay, non-plastic, saturated.	
					6			[Pattern]		
		7	12-14	1.4	4	9	ND	[Pattern]		
					5			[Pattern]		
					2			[Pattern]		
15	-15	8	14-16	0.9	2	3	ND	[Pattern]	Brown Silty CLAY, trace Organics (Roots), trace Shell fragments, moderately plastic, moist.	
					2			[Pattern]		
					1			[Pattern]		
					1			[Pattern]	Wood in spoon shoe, moist to wet below 16' bgs.	
		8	16-18	1.5	1	3	ND	[Pattern]		
					2			[Pattern]		
					2			[Pattern]		

**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.  
 Geologic information from SB-119.

**BBL**  
 BLASLAND, BOUCK & LEE, INC.  
 engineers & scientists

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
20-20		9	18-20	0.4	1	7	ND		WOOD, non-plastic, wet.	
					2					
					5					
25-25		10	20-22	1.2	2	12	ND		Dark gray SHALE fragments, trace to little fine Sand and Silt, non-plastic, saturated.	
					5					
					7					
25-25		11	22-24	0.9	10	13	ND		Gray-brown color below 22' bgs.	
					7					
					6					
25-25		12	24-26	1.6	6	14	ND		WOOD, non-plastic, saturated.	
					7					
					21					
30-30		13	26-28	0.7	15	39	ND		WOOD, non-plastic, saturated.	
					28					
					11					
30-30		14	28-30	0.0	7	5	ND		No Recovery.	
					1					
					4					
35-35		15	30-32	1.1	26	18	ND		Gray to dark gray SHALE fragments, trace fine Sand and Silt, non-plastic, saturated.	
					12					
					6					
35-35		16	32-34	0.9	9	5	ND		WOOD, non-plastic, saturated.	
					4					
					2					
35-35		17	34-36	0.8	3	5	ND		Brown-gray SILT and CLAY, moderately plastic, wet.	
					2					
					2					
35-35		18	36-38	1.5	4	8	ND		Brown-gray SILT, some Clay, trace Organics and fine Sand, moderately plastic to slightly plastic, wet.	
					3					
					2					



Remarks: bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect. Geologic information from SB-119.

Site Location:  
 North Water Street Former  
 MGP Site  
 Poughkeepsie, NY

Borehole Depth: 77.5' below grade

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
40 - 40		19	38-40	1.0	1	4	ND		Brown-gray SILT, some Clay, little Organics (Roots), trace fine Sand, moderately plastic to slightly plastic, wet.	
					2					
					2					
40 - 40		20	40-42	1.7	3	5	ND		Gray-brown SILT and CLAY, trace Organics (Roots), moderately plastic, wet.	
					3					
					2					
40 - 40		21	42-44	1.9	2	4	ND		Trace fine Sand below 42.2' bgs.	
					2					
					2					
45 - 45		22	44-46	2.0	2	4	ND		Brown-gray Silty CLAY, trace Organics, moderately plastic to plastic, wet.	
					2					
					3					
45 - 45		23	46-48	2.0	1	3	ND		Moderately plastic, wet to moist below 46' bgs.	
					1					
					2					
50 - 50		24	48-50	1.7	1	4	ND		Brown-gray SILT and CLAY, trace Organics, moderately plastic, wet.	
					2					
					3					
50 - 50		25	50-52	2.0	2	4	ND			
					2					
					2					
55 - 55		26	52-54	1.5	7	NA	ND		Little Shale fragments below 52.5' bgs.	
					2					
					50/0.5					
55 - 55									Gray SHALE, non-plastic, moist.	
55 - 55									Fluid rotary drilling through bedrock from 54' - 77' bgs. Trace sheens observed in drilling water during bedrock drilling.	

Bentonite/Cement Grout (0.5' - 55.5' bgs)

6" Threaded Black Pipe (Casing) (0 - 55.5' bgs)

5-7/8" Open Rock Hole (55.5' - 77.5' bgs)



Remarks: bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect. Geologic information from SB-119.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
60-60									Fluid rotary drilling through bedrock from 54' - 77' bgs. Trace sheens observed in drilling water during bedrock drilling.	
65-65										
70-70										
75-75										



**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.  
Geologic information from SB-119.



**Drilling Company:** Parratt-Wolff, Inc.  
**Driller's Name:** Ron Bush/Rodney Fisk  
**Drilling Method:** Hollow Stem Auger  
**Bit Size:** NA  
**Auger Size:** 4.25" ID / 8.25" ID  
**Rig Type:** CME-55 Rig  
**Sampling Method:** 2" OD x 2'

**Easting:** NA  
**Casing Elevation:** NA  
**Borehole Depth:** 37.8' below grade  
**Surface Elevation:** NA  
**Geologist:** David Cornell

**Client:** Central Hudson Gas & Electric Corporation  
**Location:** North Water Street Former MGP Site  
 Poughkeepsie, NY

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 inches	N - Value	FID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0				-				ASPHALT.	
		1	0-2	0.5	16	32	ND		CONCRETE, non-plastic, moist.	
					16				Brown to dark gray Silty fine SAND and CINDERS, trace Ash and Slag, trace fine Gravel, non-plastic, moist.	
					8					
					7				SHALE fragments, non-plastic, moist.	
		2	2-4	1.1	36	67	ND			
					31					
					14					
					8				Brown SHALE fragments, little Silt, trace fine Sand, non-plastic, moist. Wet at 4.5' bgs.	
5	-5	3	4-6	1.2	7	13	ND			
					6					
					7					
		4	6-8	0.8	5	7	1.7		Brown-gray Silty CLAY and SHALE fragments, faint petroleum-like odor, slightly plastic, saturated.	
					5					
					2					
					5					
		5	8-10	0.9	3	8	4.8		Dark gray SHALE fragments, some Silt, little fine Sand, trace sheen, non-plastic, saturated.	
					3					
					5					
					4					
10	-10	6	10-12	1.0	3	10	0.8		Gray color, sheen on slough and water, faint odor below 10' bgs.	
					3					
					7					
					5					
		7	12-14	1.1	3	5	0.4		Brown-gray SHALE fragments, little to trace Silt, faint odor, non-plastic, saturated.	
					3					
					2					
					2					
					4					
15	-15	8	14-16	1.0	5	11	0.1			
					6					
					6					
					8					
		8	16-18	0.9	6	11	0.4			
					5					
					4					

Borehole backfilled with Grout to grade.



**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
20-20		9	18-20	0.8	4 4 3 4	7	0.1		Brown-gray SHALE fragments, little to trace Silt, faint odor, non-plastic, saturated.	
		10	20-22	1.2	4 3 1 2	4	ND		Brown SILT and CLAY, trace Organics (Roots), trace Shells, moderately plastic, moist to wet.	
		11	22-24	1.0	1 1 2 2	3	ND		Brown SILT, some to little Clay, trace organics and Shell fragments, slightly plastic, wet.	
25-25		12	24-26	1.2	2 3 4 4	7	ND		Gray-brown color, trace fine Sand, moist to wet below 24' bgs. Shale chips at 24.7' bgs.	
		13	26-28	1.2	2 1 2 2	3	ND		Trace Shale fragments below 26' bgs.	
		14	28-30	1.1	1 2 2 1	4	ND		No Shale fragments, moist to wet below 30' bgs.	
30-30		15	30-32	2.0	1 1 2 2	3	ND		Wet below 32' bgs.	
		16	32-34	2.0	1 1 2 3	3	ND			
		17	34-36	2.0	1 2 3 31	5	ND		Gray-brown Silty CLAY and SHALE fragments, trace organics, moderately plastic, wet.	
35-35		18	36-38	2.0	2 1 10 50/0.3	11	ND		Gray-brown SILT and CLAY, trace Organics, moderately plastic, wet. Brown-gray SHALE fragments, little to trace Silt, non-plastic, wet. Refusal at 37.8' bgs (bedrock).	



Remarks: bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.

**Drilling Company:** Parratt-Wolff, Inc.  
**Driller's Name:** Doug Thoma/Rodney Fisk  
**Drilling Method:** Fluid Rotary  
**Bit Size:** 5-7/8" Rollerbit  
**Auger Size:** 8.25" ID  
**Rig Type:** CME-55 Rig  
**Sampling Method:** NA

**Easting:** NA  
**Casing Elevation:** NA  
**Borehole Depth:** 77' below grade  
**Surface Elevation:** NA  
**Geologist:** David Cornell

**Client:** Central Hudson Gas & Electric Corporation  
**Location:** North Water Street Former MGP Site  
 Poughkeepsie, NY

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 inches	N - Value	FID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0				-				ASPHALT.	<p>           12" Flushmount Curb Box with Concrete Pad            6" Locking J-Plug            Bentonite/Cement Grout (0.5' - 41' bgs)            6" Threaded Black Pipe (Casing) (0 - 41' bgs)         </p>
		1	0-2	0.5	16	32	ND		CONCRETE, non-plastic, moist.	
					16				Brown to dark gray Silty fine SAND and CINDERS, trace Ash and Slag, trace fine Gravel, non-plastic, moist.	
					8				SHALE fragments, non-plastic, moist.	
		2	2-4	1.1	36	67	ND		Brown SHALE fragments, little Silt, trace fine Sand, non-plastic, moist. Wet at 4.5' bgs.	
					31				Brown-gray Silty CLAY and SHALE fragments, faint petroleum-like odor, slightly plastic, saturated.	
					14				Dark gray SHALE fragments, some Silt, little fine Sand, trace sheen, non-plastic, saturated.	
5	-5	3	4-6	1.2	8	13	ND		Gray color, sheen on slough and water, faint odor below 10' bgs.	
					7				Brown-gray SHALE fragments, little to trace Silt, faint odor, non-plastic, saturated.	
		4	6-8	0.8	5	7	1.7			
					5					
		5	8-10	0.9	3	8	4.8			
					3					
10	-10	6	10-12	1.0	3	10	0.8			
					7					
					5					
		7	12-14	1.1	3	5	0.4			
					3					
					2					
					2					
15	-15	8	14-16	1.0	4	11	0.1			
					5					
					6					
					6					
		8	16-18	0.9	8	11	0.4			
					6					
					5					
					4					

**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.  
 Geologic information from SB-120.



DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
20-20		9	18-20	0.8	4	7	0.1		Brown-gray SHALE fragments, little to trace Silt, faint odor, non-plastic, saturated.	Bentonite/Cement Grout (0.5' - 41' bgs)
					4					
					3					
					4					
25-25		10	20-22	1.2	4	4	ND		Brown SILT and CLAY, trace Organics (Roots), trace Shells, moderately plastic, moist to wet.	6" Threaded Black Pipe (Casing) (0 - 41' bgs)
					3					
					1					
25-25		11	22-24	1.0	1	3	ND		Brown SILT, some to little Clay, trace organics and Shell fragments, slightly plastic, wet.	
					1					
					2					
					2					
30-30		12	24-26	1.2	2	7	ND		Gray-brown color, trace fine Sand, moist to wet below 24' bgs. Shale chips at 24.7' bgs.	
					3					
					4					
					4					
30-30		13	26-28	1.2	2	3	ND		Trace Shale fragments below 26' bgs.	
					1					
					2					
					2					
35-35		14	28-30	1.1	2	4	ND			
					2					
					2					
					1					
35-35		15	30-32	2.0	1	3	ND		No Shale fragments, moist to wet below 30' bgs.	
					1					
					2					
					2					
35-35		16	32-34	2.0	1	3	ND		Wet below 32' bgs.	
					1					
					2					
					3					
35-35		17	34-36	2.0	1	5	ND		Gray-brown Silty CLAY and SHALE fragments, trace organics, moderately plastic, wet.	
					2					
					3					
					31					
35-35		18	36-38	2.0	2	11	ND		Gray-brown SILT and CLAY, trace Organics, moderately plastic, wet.	
					1					
					10					
				50/0.3					Brown-gray SHALE fragments, little to trace Silt, non-plastic, wet.	

Remarks: bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.  
Geologic information from SB-120.

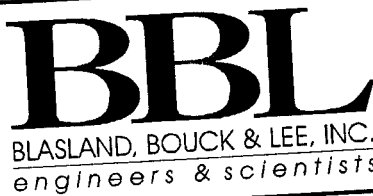


**Client:**  
Central Hudson Gas & Electric Corporation

**Site Location:**  
North Water Street Former  
MGP Site  
Poughkeepsie, NY

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
		19	38-40	0.4	50/0.4	NA	ND		Gray SHALE, non-plastic, moist to wet.	
40 - 40									Fluid rotary drilling through bedrock from 40' - 77' bgs. No sheens, odors, or NAPL observed during bedrock drilling.	
45 - 45										5-7/8" Open Rock Hole (41' - 77' bgs)
50 - 50										
55 - 55										

**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.  
Geologic information from SB-120.



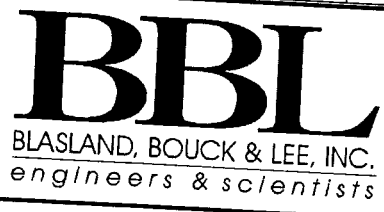
**Site Location:**  
 North Water Street Former  
 MGP Site  
 Poughkeepsie, NY

**Well/Boring ID:** NMW-120D

**Borehole Depth:** 77' below grade

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
60-60									Fluid rotary drilling through bedrock from 40' - 77' bgs. No sheens, odors, or NAPL observed during bedrock drilling.	<p>5-7/8" Open Rock Hole (28' - 77' bgs)</p> <p>Rubber Shale Trap</p> <p>4" Steel Sump (75' - 77' bgs)</p> <p>Grout (75' - 77' bgs)</p>
65-65										
70-70										
75-75										

**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.  
 Geologic information from SB-120.



Date Start/Finish: 11/21/03  
 Drilling Company: Parratt-Wolff, Inc.  
 Driller's Name: Ron Bush/Rodney Fisk  
 Drilling Method: Hollow Stem Auger  
 Bit Size: NA  
 Auger Size: 4.25" ID / 8.25" ID  
 Rig Type: CME-55 Rig  
 Sampling Method: 2" OD x 2'

Northing: NA  
 Easting: NA  
 Casing Elevation: NA  
 Borehole Depth: 34.8' below grade  
 Surface Elevation: NA  
 Geologist: David Cornell

Client: Central Hudson Gas & Electric Corporation  
 Location: North Water Street Former MGP Site  
 Poughkeepsie, NY

DEPTH	ELEVATION	Sample Run Number	Sample Int/Type	Recovery (feet)	Blows/6 Inches	N - Value	FID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0							ASPHALT.		
		1	0-2	1.2	14	28	ND	Dark gray CINDERS and SLAG, trace fine to medium Sand and fine Gravel, non-plastic, moist.		
					7			Gray-brown fine Sandy SILT and SHALE fragments, non-plastic, moist.		
		2	2-4	0.4	8	25	ND			
					11					
					14					
					14					
5	-5	3	4-6	1.1	2	5	ND	Brown SILT, some Shale fragments, little fine Sand, trace Clay, non-plastic, wet.		Borehole backfilled with Grout to grade.
					1			Trace sheen, wet to saturated below 6.0' bgs.		
					4			Faint odor below 6.8' bgs.		
		4	6-8	1.0	4	10	2.1	Faint odor, saturated below 8.0' bgs.		
					4					
					2		7.1			
		5	8-10	1.1	9	16	22.4	Gray SHALE fragments, little Silt, slight sheen, faint to moderate odor, non-plastic, saturated.		
					7					
10	-10				12					
		6	10-12	1.0	10	23	24.8	Gray fine Sandy SILT and SHALE fragments, moderate odor, trace NAPL blebs (brown-yellow oil) on slough, non-plastic, saturated.		
					16					
					7		13.6			
					3			Gray SHALE fragments, trace Silt, slight sheen, non-plastic, saturated.		
		7	12-14	0.7	4	NA	3.1			
					12					
					50/0.3					
					-			Gray SHALE fragments and SILT, little coarse Gravel, trace fine Sand and Clay, non-plastic, saturated.		
15	-15	8	14-16	1.7	14		0.8	Brown-gray SILT, some Clay, trace Organics and Shell fragments, moderately plastic, saturated.		
					16					
					18		ND	Trace fine Sand, trace Shale fragments, slightly plastic, wet below 16' bgs.		
					9					
		8	16-18	1.7	1	3	ND			
					1					
					2					
					2					

Remarks: bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.



Client:  
Central Hudson Gas & Electric Corporation

Well/Boring ID: SB-121

Site Location:  
North Water Street Former  
MGP Site  
Poughkeepsie, NY

Borehole Depth: 34.8' below grade

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
20-20	9	18-20	1.8	1	1	3	ND		Brown-gray SILT, some Clay, trace fine Sand and Shale fragments, trace Organics and Shell fragments, slightly plastic, wet.	
				2	2					
				2	2					
25-25	10	20-22	2.0	1	1	3	ND		No Shale fragments below 20' bgs.	Borehole backfilled with Grout to grade.
				2	2					
				3	3					
25-25	11	22-24	2.0	1	1	4	ND		Trace Shale fragments below 22' bgs.	
				2	2					
				2	2					
30-30	12	24-26	1.8	1	1	4	ND		No Shell fragments below 28' bgs.	
				2	2					
				2	2					
30-30	13	26-28	2.0	1	1	4	ND		No Shell fragments below 28' bgs.	
				2	2					
				2	2					
30-30	14	28-30	2.0	1	1	3	ND		Wet to saturated below 32' bgs.	
				2	2					
				2	2					
35-35	15	30-32	2.0	1	1	3	ND		Gray-brown SILT and SHALE fragments, little Clay, non-plastic, wet.	
				2	2					
				3	3					
35-35	16	32-34	2.0	2	2	6	ND		Gray SHALE, trace Silt, wet to saturated, non-plastic.	
				3	3					
				3	3					
35-35				30					Refusal at 34.8' bgs (bedrock).	
				50/0.3						



Remarks: bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.



Date Start/Finish: 11/24/03 - 12/12/03  
 Drilling Company: Parratt-Wolff, Inc.  
 Driller's Name: Doug Thoma/Rodney Fisk  
 Drilling Method: Fluid Rotary  
 Bit Size: 5-7/8" Rollerbit  
 Auger Size: 8.25" ID  
 Rig Type: CME-55 Rig  
 Sampling Method: NA

Northing: NA  
 Easting: NA  
 Casing Elevation: NA  
 Borehole Depth: 77' below grade  
 Surface Elevation: NA  
 Geologist: David Cornell

Well/Boring ID: NMW-121D  
 Client: Central Hudson Gas & Electric Corporation  
 Location: North Water Street Former MGP Site  
 Poughkeepsie, NY

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 inches	N - Value	FID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0							ASPHALT.		12" Flushmount Curb Box with Concrete Pad
		1	0-2	1.2	14	28	ND	x x	Dark gray CINDERS and SLAG, trace fine to medium Sand and fine Gravel, non-plastic, moist.	6" Locking J-Plug
					14				Gray-brown fine Sandy SILT and SHALE fragments, non-plastic, moist.	
		2	2-4	0.4	8		ND			Bentonite/Cement Grout (0.5' - 37' bgs)
					11					
					14					
					14					
5	-5	3	4-6	1.1	2	5	ND		Brown SILT, some Shale fragments, little fine Sand, trace Clay, non-plastic, wet.	6" Threaded Black Pipe (Casing) (0 - 37' bgs)
					1				Trace sheen, wet to saturated below 6.0' bgs.	
					4		ND		Faint odor below 6.8' bgs.	
		4	6-8	1.0	6				Faint odor, saturated below 8.0' bgs.	
					4		2.1			
					4					
		5	8-10	1.1	2		7.1		Gray SHALE fragments, little Silt, slight sheen, faint to moderate odor, non-plastic, saturated.	
					9					
					7		16			
					12		22.4			
10	-10	6	10-12	1.0	10		24.8		Gray fine Sandy SILT and SHALE fragments, moderate odor, trace NAPL blebs (brown-yellow oil) on slough, non-plastic, saturated.	
					16					
					7		23			
					3		13.6		Gray SHALE fragments, trace Silt, slight sheen, non-plastic, saturated.	
		7	12-14	0.7	4	NA	3.1		Gray SHALE fragments and SILT, little coarse Gravel, trace fine Sand and Clay, non-plastic, saturated.	
					12					
					50/0.3					
									Gray SHALE fragments and SILT, little coarse Gravel, trace fine Sand and Clay, non-plastic, saturated.	
15	-15	8	14-16	1.7	14		0.8		Brown-gray SILT, some Clay, trace Organics and Shell fragments, moderately plastic, saturated.	
					16					
					18		ND		Trace fine Sand, trace Shale fragments, slightly plastic, wet below 16' bgs.	
					9					
		8	16-18	1.7	1		3	ND		
					1					
					2					
					2					

Remarks: bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.



DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
20-20	9	18-20	1.8	1.8	1	3	ND	[Pattern]	Brown-gray SILT, some Clay, trace fine Sand and Shale fragments, trace Organics and Shell fragments, slightly plastic, wet.	Bentonite/Cement Grout (0.5' - 37' bgs)
					1					
					2					
20-20	10	20-22	2.0	2.0	1	3	ND	[Pattern]	No Shale fragments below 20' bgs.	6" Threaded Black Pipe (Casing) (0 - 37' bgs)
					1					
					2					
25-25	11	22-24	2.0	2.0	1	4	ND	[Pattern]	Trace Shale fragments below 22' bgs.	
					2					
					2					
25-25	12	24-26	1.8	1.8	1	4	ND	[Pattern]		
					2					
					2					
30-30	13	26-28	2.0	2.0	1	4	ND	[Pattern]	No Shell fragments below 28' bgs.	
					2					
					2					
30-30	14	28-30	2.0	2.0	1	3	ND	[Pattern]		
					1					
					2					
35-35	15	30-32	2.0	2.0	1	3	ND	[Pattern]	Wet to saturated below 32' bgs.	
					1					
					2					
35-35	16	32-34	2.0	2.0	2	6	ND	[Pattern]	Gray-brown SILT and SHALE fragments, little Clay, non-plastic, wet.	
					3					
					3					
35-35	17	34-36	0.8	0.8	30	NA	ND	[Pattern]	Gray SHALE, trace Silt, wet to saturated, non-plastic.	
					50/0.3					
					-					
									Fluid rotary drilling through bedrock from 36' - 77' bgs. No sheens, odors, or NAPL observed during bedrock drilling.	5-7/8" Open Rock Hole (37' - 77' bgs)



Remarks: bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.

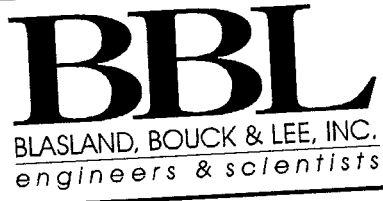
**Client:**  
Central Hudson Gas & Electric Corporation

**Well/Boring ID:** NMW-121D

**Site Location:**  
North Water Street Former  
MGP Site  
Poughkeepsie, NY

**Borehole Depth:** 77' below grade

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
40-40									Fluid rotary drilling through bedrock from 36' - 77' bgs. No sheens, odors, or NAPL observed during bedrock drilling.	5-7/8" Open Rock Hole (37' - 77' bgs)
45-45										
50-50										
55-55										



**Remarks:** bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.

Client: Central Hudson Gas & Electric Corporation

Site Location:  
 North Water Street Former  
 MGP Site  
 Poughkeepsie, NY

Well/Boring ID: NMW-121D

Borehole Depth: 77' below grade

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows/6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
60-60									Fluid rotary drilling through bedrock from 36' - 77' bgs. No sheens, odors, or NAPL observed during bedrock drilling.	5-7/8" Open Rock Hole (37' - 77' bgs)
65-65										
70-70										
75-75										
										Rubber Shale Trap 4" Steel Sump (75' - 77' bgs) Grout (75' - 77' bgs)

Remarks: bgs = below ground surface; NA = Not Applicable/Available; ND = Non-detect.





Low Tide Hudson River Shoreline Reconnaissance



Looking south from northern portion of site



Looking north from north-central portion of site (former wooden bulkhead left of riprap)



Former wooden bulkhead



Former wooden bulkhead



Looking south from central portion of site



Looking north from south-central portion of site







NAPL seeps in front of north-central portion of site



NAPL-impacted material

Dutchess Avenue Sewer Improvements



Looking east up Dutchess Avenue



Trench for new sewer line



Trench for new sewer



Old pipe in trench



New manholes