C3 ENVIRONMENTAL LIMITED
Environmental Contractors & Engineers

WATERLOO BARRIER® CONTAINMENT CELL

FORMER MGP, AMSTERDAM, NY

Case History, No. 52 **July, 2006**

Problem

A containment system was required to prevent a plume of non-aqueous phase petroleum hydrocarbon from migrating into a river adjacent to a former MGP site in Amsterdam, New York.

Solution

A Waterloo Barrier® containment cell was installed at the Site to contain the hydrocarbon contamination (see Figure 1). The Waterloo Barrier® was selected due to the low hydraulic conductivity provided by the system (10^{-7} cm/sec or less). Periodic video inspection of the sealable cavities was performed using a fibre optic video probe. The purpose of the video inspection was to demonstrate that all soil and debris within the entire length of the sealable cavity was flushed prior to sealing with WBS 301 cementitious grout (see Figure 2).

The sheet piles were driven to between 4 and 70 feet with a section of approximately 30 sheets driven beneath a bridge. The majority of the sheets beneath the bridge were spliced during the driving process due to height clearance limitations and sheet pile depth requirements.

Figure 1. Pile Driving at Former MGP Site

Figure 2. Video Inspection of Footplate

SITE SUMMARY
Barrier: 33,432 square feet of Waterloo Barrier® WEZ95 **Depth:** 4 to 70 feet

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