

## PROJECT DESCRIPTION

### *Breasting Cell*

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**Location:**  
Tonawanda, New  
York

**Client:**  
Marathon Ashland  
Petroleum, LLC

**Client Contact:**  
Mr. Larry Clark,  
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### ***The Breasting Cell Nearing Completion in the Niagara River***

McMahon & Mann Consulting Engineers, P.C. (MMCE) prepared design plans for a mooring cell for the Marathon Ashland Petroleum, LLC (MAP) Tonawanda, New York terminal. The cell is located in the Niagara River and MAP will use it to secure its barges for unloading asphalt products.

MMCE drilled test borings on shore and surveyed the topography of the riverbed. MMCE worked with the U.S. Army Corps of Engineers and the New York State Department of Environmental Conservation to secure the necessary permits for the facility.

The 27-foot diameter cell was built with steel sheet piles and filled with crushed rock. The top of the cell has a concrete cap and a bollard for anchoring the barges. Rock anchors were extended from the concrete cap into the underlying rock to resist the overturning moments applied by the current, wind and ice loads.

MMCE also designed a walkway extending from the shore to the cell and a railing around the top of the cell.