

**DESCRIPTION**

This work shall consist of removing and plugging existing groundwater monitoring wells in accordance with the provisions of this specification, the details included in the contract plans, and as directed by the Engineer. This work is to comply with procedures outlined in the NYSDEC Division of Environmental Remediation document CP-43 Groundwater Monitoring Well Decommission Policy, November 3, 2009.

**MATERIALS**

All materials used shall be as outlined under the Construction Details section of this specification. Any material substitutions shall be approved in advance by the Engineer.

**CONSTRUCTION DETAILS**

The Contractor shall inform the Engineer a minimum of five (5) days in advance of removing and plugging of the groundwater monitoring wells.

Any changes to the procedures described below shall be approved in advance by the Engineer.

The Contractor shall take precautions to prevent any materials, other than those specified, from entering the well casing, once the existing well cap is removed and the casing trimmed.

Wells to be removed and plugged shall be altered during the construction phase that includes reconstruction of the surrounding or adjacent pavement, shoulder, or embankment.

Portions of the existing well to be removed shall include the protective steel stand pipe and associated concrete, the water proof cap, and the portion of the well casing that extends for 1.0 meter below the finished grade elevation in that location. All protective posts surrounding the monitoring wells are also to be completely removed and backfilled.

Immediately upon removal of the above portions of the well the remaining well casing shall be filled as follows: The portion of the well occupied by the screen shall be filled with clean coarse sand. In no case shall the sand filling extend above the top of the screen.

The interior of the riser pipe, and any existing annular space outside of the casing, shall be filled with a Portland cement/bentonite grout. A Sufficient quantity of grout is to be prepared on-site according to the mix design proportions given below so as to completely backfill the abandoned well and to fill the surface excavation.

**ITEM 203.29      08 - REMOVING AND PLUGGING EXISTING GROUNDWATER  
MONITORING WELL**

Standard Grout Mix Proportions:

- One 42.6 kg (94 pound) bag type I Portland cement
- 1.8 kg (3.9 pounds) powdered bentonite
- 29.5 liters (7.8 gallons) potable water

The grout shall be placed under pressure through a tremie pipe to the bottom of the well in order to prevent gaps or voids from developing and to prevent dilution of the grout mixture. The placing of the grout shall be continuous until grout appears at the top of the casing, at which time the grout pipe may be withdrawn.

After the grout has consolidated, as confirmed by visual inspection, the top of the casing shall be closed and sealed. The disturbed soils at the top of the well and the 1.0 meter deep excavation for the removed section of the well shall be filled with cement concrete.

**DISPOSAL REQUIREMENTS**

Wastes to be generated as part of this item will consist of broken concrete, the steel protective locking casing, and broken sections of PVC pipe. This material can be treated as uncontaminated. The debris is to be disposed of as appropriate for construction and demolition debris.

**METHOD OF MEASUREMENT**

This work will be measured by the number of monitoring wells that are plugged in accordance with the plans, specifications, and as directed by the Engineer.

**BASIS OF PAYMENT**

The unit price bid for this item shall include the cost of all labor, equipment, and materials necessary to complete the work.

<b><u>ITEM NO.</u></b>	<b><u>ITEM DESCRIPTION</u></b>	<b><u>UNIT</u></b>
203.29----08	Removing and Plugging Existing Groundwater Monitoring Well	Each