



***The miracles of science™***

May 4, 2011

Dear Resident:

In March 2011, the U.S. Environmental Protection Agency and the New Jersey Department of Environmental Protection approved a work plan submitted by DuPont to complete a pilot study using a technology known as bioremediation for treating groundwater contamination in the off-site groundwater plume adjacent to the DuPont property. Bioremediation is a process that uses naturally occurring bacteria or microorganisms to remove contaminants present in soil and water. Pilot studies are typically conducted to collect detailed information to determine if a specific technology is applicable to use at a site.

The pilot study being completed by DuPont will be implemented using a phased approach to ensure the collection of data necessary to meet the project objectives. Simply put, data collected in one step of the pilot study process will be used to determine if the subsequent steps within the program need to be modified. A summary of the steps to be completed as part of this pilot over the next nine months is attached. The complete work plan for the study is posted on the Pompton Lakes Works website ([www.pomptonlakesworks.com](http://www.pomptonlakesworks.com)).

Pilot study activities will be conducted in an area at the intersection of Barbara Drive and Schuyler Avenue (see enclosed map). This location was selected based on groundwater data from nearby monitoring wells which suggests that conditions in the aquifer (i.e., concentrations of contaminants) are amenable to apply this technology. The first step in the pilot study consists of installing a series of wells in the pilot area. These wells will be used to conduct testing which will provide data on groundwater flow rates and direction as well as other factors potentially present in the aquifer that could affect the implementation of the technology. Field activities are scheduled to begin the week of May 16<sup>th</sup> with utility clearances. Well installation is scheduled to start May 23<sup>rd</sup> and should require approximately 3 weeks to complete.

We expect increased noise levels associated with some equipment used throughout the study and, as such, working hours will not start before 8 am and will not go beyond 5 pm. Although we do not anticipate any road closures, traffic patterns in the area of Barbara Drive and Schuyler Avenue will be modified to ensure everyone's safety. As in the past, we have contracted with the Pompton Lakes police department to assist with traffic matters.

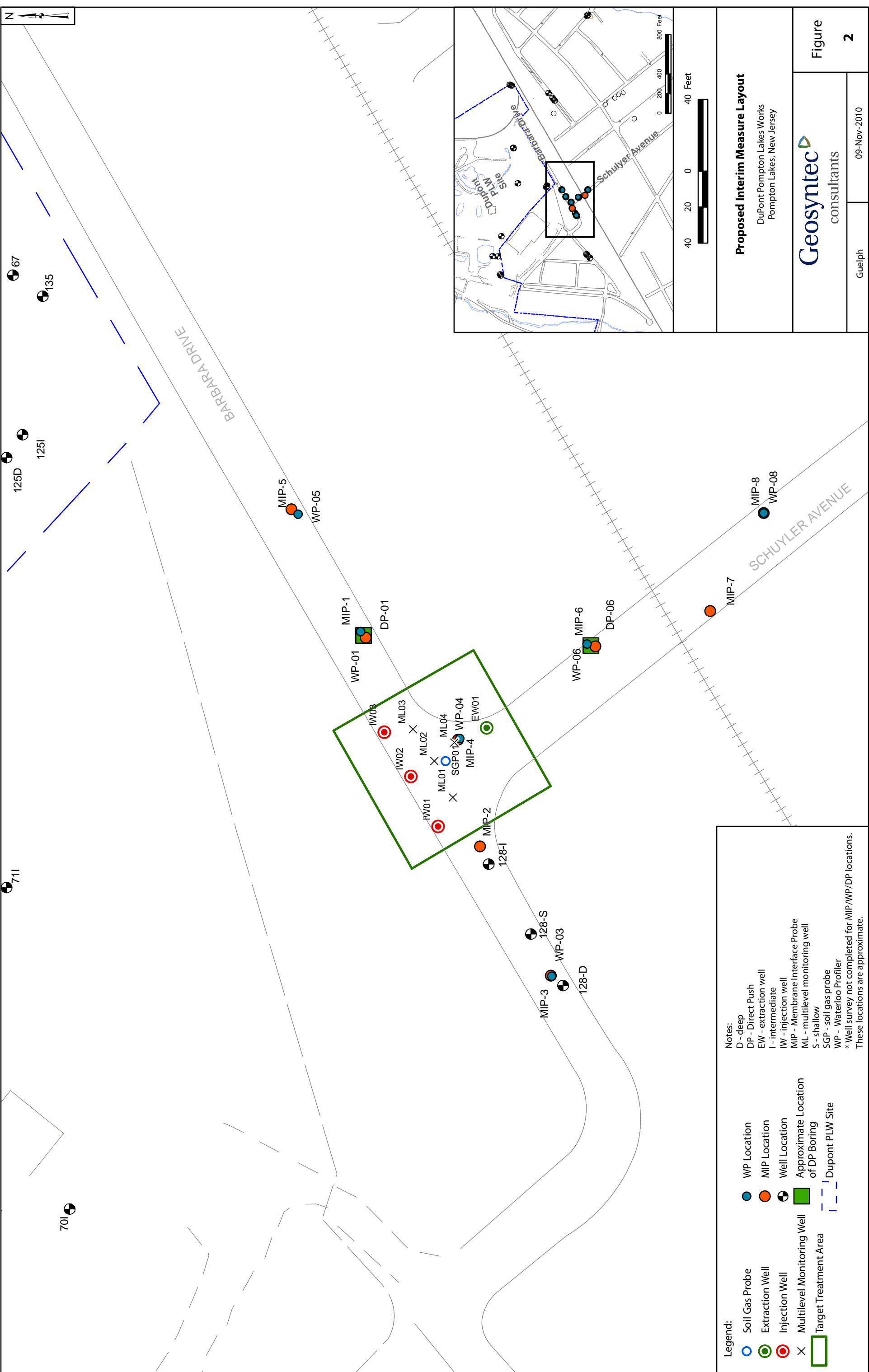
We appreciate your patience during this time period and will do our best to minimize disruption during the completion of our work. We will continue to communicate with you throughout the project (via additional updates, information sessions, etc.). In the meantime, feel free to contact us at (973) 492-7729 with any questions or if you have feedback during the pilot study.

Sincerely,

A handwritten signature in black ink that reads "David E. Epps".

David E. Epps, P.G.  
Project Director, Pompton Lakes Works  
DuPont Corporate Remediation Group

cc: Anthony Cinque, NJDEP  
Clifford Ng, USEPA  
Mayor Kathleen Cole/Vito Gadaleta, Borough of Pompton Lakes



- Legend:**
- Soil Gas Probe
  - Extraction Well
  - Injection Well
  - Multilevel Monitoring Well
  - Target Treatment Area
  - WP Location
  - MIP Location
  - Well Location
  - Approximate Location of DP Boring
  - Dupont PLW Site

- Notes:**
- D - deep
  - DP - Direct Push
  - EW - extraction well
  - I - intermediate
  - IW - injection well
  - ML - Membrane Interface Probe
  - MIP - multilevel monitoring well
  - S - shallow
  - SGP - soil gas probe
  - WP - Waterloo Profiler
  - \* Well survey not completed for MIP/WP/DP locations. These locations are approximate.

**Proposed Interim Measure Layout**

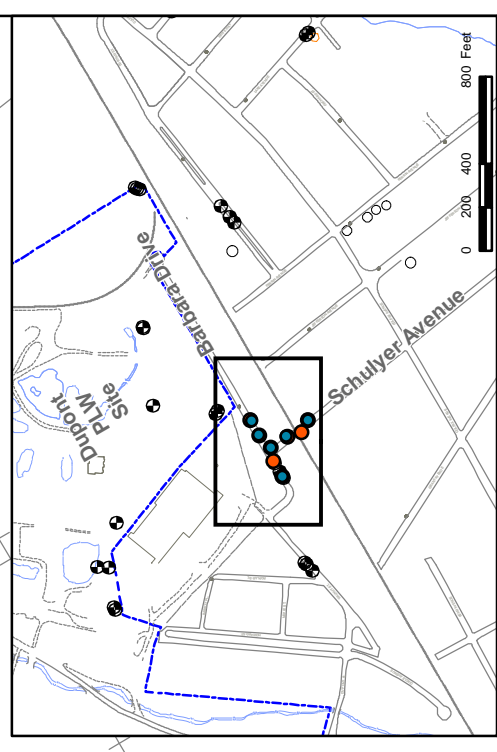
DuPont Pompton Lakes Works  
Pompton Lakes, New Jersey



Figure  
**2**

Guelph

09-Nov-2010



Step 1

**Project Initiation**  
**When** – Project will be initiated upon receipt of NJDEP/EPA work plan approval.  
**What** – Obtain required permits from local, state and federal agencies finalize site conceptual model for pilot program area.  
**Duration** – up to 6 weeks (permit approval).

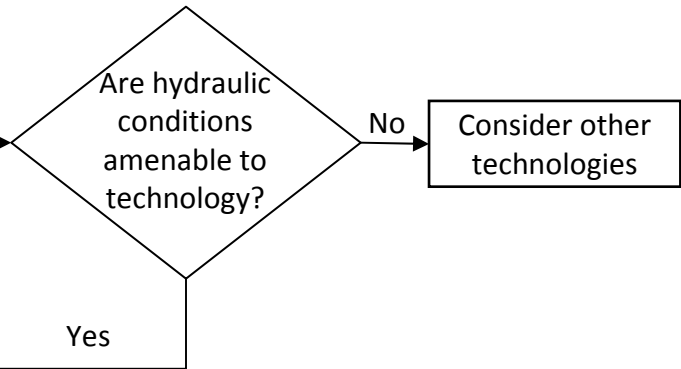
Step 2

**Well Installation (injection, extraction and monitoring wells)**  
**Why** – flow measurements and water quality.  
**What** – flush surface wells in 80' by 80' area near Schuyler and Barbara.  
**Duration** – up to 3 weeks.

**Hydraulic Testing**  
**Why** – Measure hydraulic conductivity of target treatment zones so that addition of bio-reagents is completed efficiently and effectively in Step 6 below.  
**What** – (a) Slug tests, (b) short term pumping tests, (c) borehole dilution tests, and if necessary (d) hydraulic tomography and/or (e) conservative tracer test.  
**Duration** – 3 weeks for a, b, and c. If d is necessary this would require 1 additional week. If e is necessary may require up to 4 months.

Steps 3&4

**Hydraulic Testing Evaluation**  
**Why** – Collate data collected from previous step.  
**What** – Refine injection volumes and flow rates to target zones. Conduct modeling to simulate addition of bio-reagents.  
**Duration** – 3 weeks



Step 5

**Pilot Test Operation Plan**  
**Why** – Incorporate hydraulic testing results to refine operating conditions for Pilot.  
**What** – Develop operation plan (determine injection frequency, rate and amendment amounts. Install additional wells (if necessary). Complete baseline groundwater sampling.  
**Duration** – 4 weeks (provide copy of Operation Plan to Regulatory Agencies).

Step 6

**Pilot Test/IRM Operation**  
**Why** – Conduct pilot to simulate field operation/conditions.  
**What** – Amend with bio-reagents and conservative tracer. Collect groundwater samples from wells for lab analysis. Confirm groundwater flow direction.  
**Duration** – 6 months

Step 7

**Pilot Test/IRM Evaluation**  
**Why** – Determine success of pilot test/IRM.  
**What** – Collate site specific results for comparison to expected results simulate scale up design using groundwater flow model.  
**Duration** – 6 weeks

Submit Report to Regulatory Agencies

**Notes:**  
 IRM – interim remedial measure  
 IRM targets intermediate anaerobic zone in the area of well 128-I