



Memorandum

To: Wayne Reiber, Cabot Corporation

Date: February 22, 2005

From: Manu Sharma and Jessie Hurd

Subject: Expanded Groundwater Monitoring Scope,
Cabot Carbon/Koppers Superfund Site, Gainesville, FL

This memorandum presents an expanded scope for groundwater quality monitoring to be implemented in March 2005 at the Eastern portion of the Cabot Carbon/Koppers Superfund Site. At the meeting in Atlanta on January 27, 2005, Florida Department of Environmental Protection (FDEP) requested that additional monitoring wells be included in the upcoming groundwater monitoring event to assist with the 5-year remedy review to be undertaken later this year. Gradient has also reviewed FDEP's proposed expanded monitoring scope (email dated February 16, 2005), and we generally agree with their proposal, with a few minor exceptions.

Gradient's Recommended Expanded Groundwater Monitoring Scope

A total of 9 monitoring wells are monitored quarterly at the Eastern Site to evaluate the effectiveness of the groundwater interceptor trench system located along the western side of North Main Street. These groundwater quality and groundwater elevation data have demonstrated that the interceptor trench continues to effectively capture surficial aquifer groundwater.

Expanded Monitoring Objectives

A review of the operational history for the former Cabot facility and the extensive soil quality characterization data indicate that the former Cabot Lagoons were the primary source area at the former Cabot facility. Therefore, the expanded monitoring scope was developed to characterize groundwater quality near and downgradient of the former Cabot Lagoons, particularly at locations that have not been sampled recently (*i.e.*, within the last several years).

Monitoring Scope

Gradient proposes that a total of 17 monitoring wells (9 routinely sampled and 8 additional wells) be sampled (refer to attached table and figure). Samples will be analyzed for the complete quarterly monitoring program list, which includes all compounds of concern identified in the Record of Decision (ROD) and a few additional analytes (*e.g.*, MtBE). Samples will be collected using groundwater sample collection procedures that have been used in previous monitoring events.

Comments Regarding FDEP's Proposed Monitoring Program

The above-recommended 8 additional wells were also included in FDEP's recommended expanded monitoring scope. The differences between Gradient and FDEP's recommended program scope are:

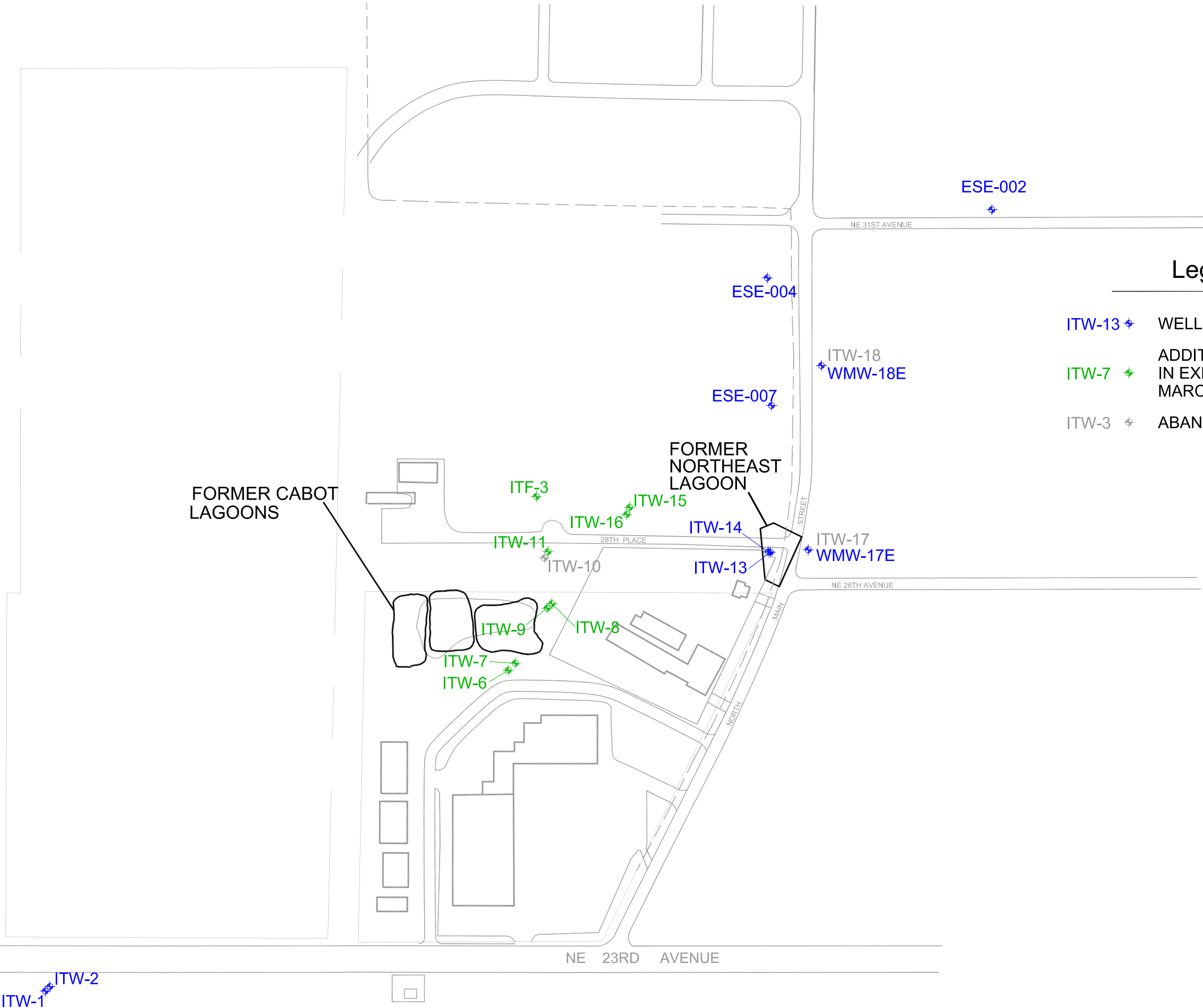
- *ITW-10*: This monitoring well was abandoned and hence is not available for sampling.
- *ITW-5*: Monitoring well, MW-23BR, which is located adjacent to ITW-5 and is screened essentially across the same depth interval (20-25 vs. 19-24 ft below grade) was sampled

by TRC on Beazer's behalf in April 2004. Wood-treating related compounds – volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and pentachlorophenol – were detected. Given the availability of these recent groundwater quality data, we do not believe that ITW-5 needs to be sampled at this time.

- *ITW-4, ESE-005, and ESE-006:* Located in the southern portion of the former Cabot property, where no Cabot-related sources were present. In addition, given the presence of other source areas that are believed to be affecting groundwater quality in this portion of the Site (leaking UST at Automasters, shopping mall parking lot, *etc.*), these wells would not produce data useful in characterizing groundwater quality near and downgradient of the former Cabot Lagoons.
- *ESE-003:* Located too far field from the former Cabot property. Monitoring well WMW-17E has been routinely sampled, and had demonstrated that the groundwater interceptor trench is operating effectively.
- *ITF-2:* Located near the Koppers facility and too far-field from the former Cabot property. In addition, this well was recently (April 2004) sampled by TRC on Beazer's behalf.
- *Surface water sampling:* The following data clearly indicate that the groundwater collection trench is operating effectively: 1) steep hydraulic gradients inducing flow from both sides into the trench; 2) sharp decline in groundwater concentrations; and 3) the high flow rate of groundwater (approximately 50 gpm, annual average) being recovered from the trench – approximately equal to the net groundwater flux traveling eastward to the trench. As a result, the swale (along North Main Street) north of the interceptor trench lift station is dry, except during/after storm events. Surface water quality in the creek located north of the Site is expected to be heavily influenced by inputs of site-related compounds (*e.g.*, BTEX, PAHs, metals – ubiquitous in urban sediment and surface waters) from numerous sources present in this urban setting. Consequently, surface water quality results from this creek are not expected to be useful in determining the effectiveness of the groundwater collection trench.

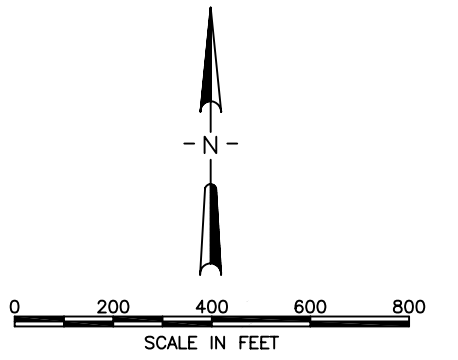
Overall, the expanded groundwater monitoring program scope is expected to yield useful data in evaluating and (based on prior data) demonstrating that the Cabot installed remedy continues to be protective of human health and the environment.

If you and/or Kelsey Helton would like to discuss this scope, we are available for a conference call next week. Our understanding is that Weston will be conducting the proposed sampling in March 2005. Consequently, it would be beneficial to reach an agreement with FDEP on the scope of the sampling by Friday, March 11, 2005 in order to leave adequate time for planning and implementing the sampling program.



Legend

- ITW-13 ♦ WELLS ROUTINELY MONITORED
- ITW-7 ♦ ADDITIONAL WELLS TO BE SAMPLED IN EXPANDED MONITORING EVENT MARCH 2005
- ITW-3 ♦ ABANDONED WELLS



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FIGURE 1
 MONITORING WELLS TO INCLUDE IN
 MARCH 2005 EXPANDED
 GROUNDWATER MONITORING EVENT

CABOT CARBON/KOPPERS SUPERFUND SITE,
 GAINESVILLE, FL

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DATE: 02/16/05	DATE: 02/16/05	FILE: New_figures

ITW-1
ITW-2