

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



REGION 4

61 Forsyth Street
Atlanta, Georgia 30303-3104

January 14, 2010

Mr. Wayne Reiber, Manager
Environmental Assessment & Remediation
Cabot Corporation
Corporate Safety, Health and Environment
Two Seaport Lane
Suite 1300
Boston, MA 02210

Dear Mr. Reiber:

Thank you for the December 4, 2009, Workplan entitled "**Hawthorn Group Sampling Results Cabot Carbon/Koppers Superfund Site Gainesville, Florida.**" EPA and Cabot Carbon Site stakeholders have considerable concerns related to the content. EPA's comments are as follows:

1. The report attempts to make a case that the groundwater contamination noted at HG-29S is, at least in part, due to contaminant carry down or faulty well construction. EPA considers this possibility as very unlikely and would suggest that Cabot remove this language from the Workplan.
2. We do not concur with the proposal to monitor ITW-4 as a well that is upgradient of the HG29S/29D location. This well would provide some indication of background groundwater quality that is not greatly affected by either the Cabot or Koppers groundwater contamination, although some impacts to groundwater at this location have been noted. However, the well does not appear to be upgradient of the HG-29S/29D location under current hydraulic conditions. A better choice might be ITW-5. This well has been relatively dramatically impacted by the Koppers groundwater contamination. Thus, ITW-5 might give the best indication of any surficial aquifer contamination bypassing the hydraulic containment system and then migrating toward the HG-29S/29D location, although the considering the location of ITW-5, the well is probably not useful for determining if surficial aquifer contamination has somehow migrated from the chemical oxidation test area at Koppers eastward to the vicinity of HG-29S/29D.

In addition to monitoring the surficial aquifer, resampling of HG-29S/29D is needed. The Hawthorn wells have already been sampled twice, so one might make a case for concluding that organic contaminants need not be rechecked in those wells. However, contamination by both phenolic compounds and "BTEX" increased in the HG-29S/29D samples from May to August 2009. Thus, an additional analysis of organic contaminants of potential concern in HG-29S and HG-29D samples is needed to determine if concentrations have increased further, or if the observed values from earlier samples are indicative of the range in concentrations that might be

expected.

3. As a generalization, and this may already be the case, the designs of the proposed Hawthorn wells should as closely as practicable replicate the as-built and constructed designs of the existing Hawthorn wells (those installed for investigation of groundwater contamination originating from the Koppers portion of the Site, and completed within the last year).
4. The list of analytes for both the Surficial Aquifer and the HG deposits should be the same, given that hydraulic communication across the HG upper clay unit allows for mixing of these two units. The list of analytes for the HG deposit monitoring wells must be modified to include VOCs and SVOCs. In addition, the list of analytes for the Surficial Aquifer indicates that only phenol will be analyzed. The June 2008 analyses of Surficial Aquifer monitoring wells (Cabot 2008) indicate that all phenol compounds (Phenol, 2,4-Dimethylphenol, 2-Methylphenol, 3&4-Methylphenol) are elevated in the vicinity of the former lagoons. Similarly, the May 2009 groundwater sampling results for monitoring wells HG-29S and HG-29D demonstrates that Phenol (3,000 and 1,700 µg/L), 2,4-Dimethylphenol (570 and 1,600 µg/L), 2-Methylphenol (1,300 and 1,300 µg/L), and 3&4-Methylphenol (4,200 and 7,800 µg/L) are elevated in these wells, respectively. Therefore, the list of analytes must be modified to include all phenol compounds. The analysis method listed for the Terpenes and Terpenoids analysis is "Method 8270". The method must be modified to "Method 8270C". Similarly, the SVOCs must be analyzed with "Method 8270C".
5. Cabot should map the contamination both in the Surficial and the HG on the Cabot site (regardless of suspected source). Also, maps of surficial and HG sampling wells on the Cabot site should include Beazer-installed wells in addition to Cabot-installed wells. These maps should also plot pH as an indicator of Cabot contamination.
6. The Work Plan should specify which FDEP SOPs will be used to collect groundwater samples (Section 4.4.2, pg. 13).
7. Upper HG and Lower HG wells should be constructed with well screens positioned at the base of the sandy silt units of the HG, not mid-way within them (Section 4.3.1 and 4.3.2, pgs. 10 and 11 respectively).
8. Although there would not appear to be critical concern regarding the toxicity of camphor, borneol or other terpene and terpenoids at concentrations of several thousand ppb (Section 2.2.2, pg. 4), these compounds do emit strong odors and it is likely that these compounds would cause taste & odor problems in drinking water supplies at low ppb concentrations. As a consequence, these compounds are important to be monitored and mapped at the Cabot site not only as indicators of contamination originating from Cabot, but also due to their potential impact on the Floridan Aquifer. Analysis of terpenes and terpenoids should be included in all future monitoring and investigations of the Cabot site.

9. ITF-3, ITW-15 and ITW-16 should also be redeveloped and sampled as part of the surficial aquifer sampling plan, i.e. all of the IT wells should be sampled, with the possible exception of ITW-13 and 14 since they are in the NE Lagoon site. All of the IT wells should be cleaned out and redeveloped before sampling.
10. All new and existing intermediate aquifer (Hawthorn Group) including HG-29 cluster and surficial aquifer system wells should be sampled on a routine basis as part of compliance monitoring for the former Cabot portion of the Site.
11. Cabot should install a total of three HG nested well pairs downgradient of the former Cabot lagoons. Two wells will be located approximately 150 and 300 feet to the west of monitoring well HG-29S/D, immediately downgradient of the former lagoons. These wells will provide data on potential impacts downgradient of the three former lagoons. A third well should be installed approximately 150 feet downgradient of HG-29S/D to investigate the downgradient lateral extent of impacts. A distance of 150 is within the approximately 200-foot distance projected for the non-detect isoconcentration contour by Cabot.
12. Cabot should install two Surficial Aquifer monitoring wells. Both wells should be screened at the base of the Surficial Aquifer and immediately above the HG upper clay unit, in that concentrations tend to be the highest in the lower portion of this aquifer. The proposed locations of the monitoring wells are as follows: a) One well should be installed adjacent to monitoring well HG-29S to provide additional concentration data with which to evaluate the vertical leakage conceptual model; b) A second well should be installed in the central area of the former lagoons to evaluate potential source zone concentrations to both the Surficial Aquifer and HG deposits.

If we may be of assistance in this matter, please contact me at (404) 562-9120 or via Internet e-mail at miller.scott@epa.gov.

Sincerely,



Scott Miller
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Superfund Division