

April 6, 2007

Ms. Amy McLaughlin  
Remedial Project Manager  
United States Environmental Protection Agency  
Region IV, Superfund North Florida Section  
61 Forsyth Street, SW  
Atlanta, GA 30303

**RE: Response to EPA Comment Letter dated December 7, 2006  
Five-Year Review Report – April 2006  
Recommendation #9–Redevelopment/Sampling of Surficial Aquifer Wells  
Cabot Carbon/Koppers Superfund Site in Gainesville, Florida**

Dear Ms. McLaughlin:

On behalf of Beazer East, Inc. (Beazer), this letter is in response to Recommendation #9 in Table 13 of the *Second Five-Year Review Report for Cabot Carbon/Koppers Superfund Site*, dated April 4, 2006 (Review Report) and conducted by the U.S. Army Corps of Engineers (USACOE) on behalf of the United States Environmental Protection Agency (EPA). Specifically, this letter is responding to the EPA letter dated December 7, 2006, which contained comments on Beazer's proposed Surficial Aquifer well redevelopment and sampling plan (see Beazer's letter to the EPA dated October 30, 2006).

Beazer's detailed response to the December 7, 2006 EPA letter is provided in Attachment A of this letter. Based on the EPA comments, additional Surficial Aquifer monitoring wells have been selected for redevelopment and sampling. A total of 46 monitoring wells will be redeveloped and sampled by Beazer, in addition to the redevelopment of the 14 extraction wells. The currently proposed monitoring wells represent an increase of 20 additional monitoring wells from the 26 wells proposed in the October 30, 2006 letter. The complete list of wells proposed for redevelopment and sampling is included in Table 1 and the locations are shown in Figure 1.

The sampling of the 46 wells discussed above will be performed as a one-time event to obtain a current snap-shot of the Surficial Aquifer constituent plume concentration and distribution. Consistent with the re-evaluation the hydraulic-containment system (see Beazer's letter dated December 22, 2007), Beazer will propose a revised long-term monitoring program to evaluate the performance of all remedial actions for the Surficial Aquifer system.

April 6, 2007

Beazer is prepared to proceed with the work described in this letter, once approval is received from the EPA. If you should have any questions or require additional information, please contact me at (303) 665-4390.

Sincerely,



James R. Erickson  
Project Manager

Attachments

cc: W. O'Steen, EPA  
K. Helton, FDEP  
J. Mousa, ACEPD  
B. Goodman, GRU  
M. Brouman, BEI  
M. Slenska, BEI  
J. Blundon, BEI  
J. Fankulewski, KI  
J. Mercer, GT

**Attachment A**  
**Response to EPA Comment Letter Dated December 7, 2006**  
**Five-Year Review Recommendation #9**  
**Redevelopment/Sampling of Surficial Aquifer Monitoring Wells,**  
**Cabot/Koppers Superfund Site, Gainesville, Florida**

**Comment 1:** *Beazer does not intend to sample any wells on the Cabot Carbon property, asserting that those wells are Cabot Carbon's responsibility. However, it is believed probable, if not confirmed by monitoring on the Cabot Carbon portion of the Site and by ground-water modeling analysis, that inadequate capture of Koppers-derived surficial aquifer contamination has resulted in some of that contamination migrating past the line of extraction wells on the eastern Koppers boundary. For such contamination, it becomes Beazer's responsibility to evaluate the nature and extent of such contamination. EPA intends to consider such contamination in terms of possible modifications to remedial strategies to address surficial aquifer contamination derived from the Koppers part of the Site. Thus, EPA requests that Koppers monitor certain wells on the Cabot Carbon portion of the Site where it is anticipated that Koppers-derived contamination will be most significant or may be present. Referencing Figure 1 in the Beazer letter proposal, these wells include ESE-001, ITW-19 or ITW-20, ITW-12, ITW-8 or ITW-9, ITW-6 or ITW-7, and ITW-3. The choice of which of the wells in close proximity to monitor (e.g. ITW-19 or ITW-20) should be made on the basis of known vertical distribution of contamination, other prior monitoring data, well accessibility, and other factors. If the apparently paired wells monitor different vertical intervals within the surficial aquifer, then both wells need to be monitored. Thus, ITW-19 and ITW-20 would be considered more or less redundant monitoring wells (reference Table 1 in Beazer's letter report), while ITW-6 and EW-7 would not be considered redundant.*

**Response:** Beazer agrees and has stated in the past that the Surficial Aquifer containment system is not providing 100-percent hydraulic capture of constituents from the Koppers portion of the Site. Currently as part of the U.S. EPA approved Stage 2 Monitoring Program (TRC, 1997), monitoring wells ESE-001, ITW-20, and ITW-12 are being monitored on an annual basis. Beazer agrees that monitoring well ITW-19 is a redundant well and should not be monitored in the future. The other wells listed by U.S. EPA (ITW-8, ITW-9, ITW-6, ITW-7, and ITW-3 or ITW-4) were all recently sampled by Cabot's consultant (Gradient, 2005). Cabot also routinely samples the following Surficial Aquifer wells to evaluate the performance of the groundwater interception trench: ESE-002, ESE-004, ESE-007, ITW-1, ITW-13, ITW-14, ITW-2, WMW-17E, and WMW-18E (Gradient, 2005).

Beazer proposes to redevelop and sample select wells on the Koppers portion of the Cabot Carbon/Koppers Superfund Site, in addition to off-Site monitoring wells that are currently part of Beazer's Stage 2 Monitoring program (ESE-001, ITW-20, ITW-12). In addition, Beazer will sample monitoring well ITW-22 as part of this one-time Surficial Aquifer sampling event.

**Comment 2:** *For wells on the Koppers property within or close to contaminant source areas or suspected principal source areas, EPA requests that the wells be redeveloped and monitored. Any observations of free product in those wells (determined from pre-redevelopment investigations or observed during actual sample collection) should be noted. Such observations will be a consideration in the evaluation of analytical data (EPA acknowledges that the presence of NAPL in a sample makes a dissolved-phase concentration of at least organic contaminants suspect or invalid). EPA considers this source-area sampling to be important for the following reasons:*

- *It will provide additional information on the location and volume of DNAPL in the surficial aquifer;*
- *Redeveloped source area wells may become a part of a remedial strategy to address DNAPL in the surficial aquifer; and*
- *Arsenic or other metals contamination in the surficial aquifer needs to be characterized in source areas, to support EPA's total Site remedial strategy.*

**Response:** As stated in the past by Beazer, DNAPL has only been observed in one Surficial Aquifer monitoring well (PW-1) because of pumping during two pilot tests. GeoTrans has already evaluated the location of DNAPL in former source areas and estimated DNAPL volumes (GeoTrans, 2004). It is highly unlikely that redeveloping and sampling source area wells will provide additional information on the location and volume of DNAPL.

We agree to add monitoring wells located on the periphery of the source area boundaries. The following Surficial Aquifer wells will provide sufficient analytical data to assess COC concentrations in the vicinity of the former source areas:

- 1) Former South Lagoon: M-28R, M-21A and M-21B;
- 2) Former North Lagoon: M-1;
- 3) Former Drip Track Area: M-15B, M-22A and M-22B; and
- 4) Former Process Area: M-30A, M-30B, M-24A and M-24B.

**Comment 3:** *Beazer's proposal does not include any list of proposed monitoring constituents. Consistent with the Second Five-Year Review, monitoring for all site COCs is needed. Anything less than full COC sampling will not meet EPA's objectives and is unacceptable.*

**Response:** All current and future Surficial Aquifer monitoring wells will be sampled for the full list of groundwater COCs.

**Comment 4:** EPA will evaluate data obtained as a part of this sampling, and then consider the scope of future monitoring of the surficial aquifer that is Beazer's responsibility. Such future monitoring will not necessarily be specifically directed toward monitoring the progress of a Koppers surficial aquifer remedial action system designed to pump and treat ground water. For instance, certain surficial aquifer wells may be monitored as a part of evaluations that address source area remedial actions that are not directly related to the extraction well system.

**Response:** Beazer agrees with this comment.

**Comment 5:** EPA acknowledges that surficial aquifer wells in close proximity to one another and that monitor overlapping vertical intervals likely provide more or less redundant information. However, wells that are in close proximity and monitor different vertical intervals may provide useful information on the vertical distribution of contaminants. In this regard certain wells that Beazer proposes for no sampling need to be sampled, unless there are clear post-remedial data that demonstrate the redundancy of a well compared to the nearby well screened at a different interval. For example, referring to Table 1, wells MW-16A and MW- 16B are not to be considered redundant and must therefore both be sampled unless there are data obtained after the implementation of the surficial aquifer remedial action that demonstrate near equivalency of contaminant concentrations in samples from these two wells (e.g. consistently  $\pm 10\%$  difference maximum in concentrations of all contaminants between the two wells).

**Response:** A revised Table 1 is provided for this response that lists all proposed redeveloped/sampled Surficial Aquifer monitoring wells. If a monitoring well is not included for redeveloping/sampling by Beazer, it is because of one of the following reasons:

1. The monitoring well is currently being monitored by Cabot or has been monitored by Cabot in 2005;
2. The monitoring well no longer exists according to Table 3-1 of McLaren Hart 1993 Site Characterization Data Report;
3. The monitoring well is located in the central portion of a source area; and
4. The monitoring well is located near another well that monitors the same depth interval.

**Comment 6:** The following comment was received from Gainesville Regional Utilities: Beazer's October 30, 2006, response to Recommendation #9 - Redevelopment/Sampling of Surficial Aquifer Wells appears to focus on creosote constituents only. That conclusion is based on the proposal to exclude sampling wells located near source areas because "Monitor wells completed in the former source areas are not representative of the dissolved-phase plume for the Surficial Aquifer and are likely impacted by residual NAPL droplets and sheens in the well". In addition to creosote constituents, the dissolved arsenic plume should also be a major focus if the well redevelopment and sampling plan. Therefore, to provide data within the central portion of the Superfund site, and at two or more potential sources of arsenic contamination where data are currently lacking, it is recommended that (at a minimum) the following Surficial Aquifer wells (as presented on Figure 1 of the October 30, 2006, Beazer letter) should be added to the list of wells to be redeveloped and sampled:

- *Well at the north end of the Former North Lagoon;*
- *Wells at the north and south ends of the Former South Lagoon;*
- *One well at the north end and one well at the south end of the Former Drip Track;*
- *One of the wells between the south end of the Former South Lagoon and well M-26; and*
- *Three wells within or adjacent to the Process Area: (1) one well at the southern boundary, (2) one well in the central-portion of the source area, and (3) one well near the northwest boundary.*

**Response:** See response to Comment #2. In addition, monitoring wells M-27A and M-27B have been added to the list of wells to be redeveloped and sampled as part of this program.

Table 1. Surficial Aquifer well redevelopment and sampling status for the Cabot Carbon/ Koppers Superfund Site.

Well ID	Redevelop & Sample Well (Y/N)	Redevelop Well Only (Y/N)	Well Status	Well Location	Total Depth (FT)	Top of Screen (FT BLS)	Bottom of Screen (FT BLS)	Well ID (IN)
ESE-001	Y		Sampled Annually by Beazer	Off-Site	23.36	6.50	21.20	2
EW-1	N	Y	Containment System Extraction Well	On-Site	25.00	7.00	23.00	6
EW-10	N	Y	Containment System Extraction Well	On-Site	27.00	9.00	25.00	6
EW-11	N	Y	Containment System Extraction Well	On-Site	29.50	12.50	28.50	6
EW-13	N	Y	Containment System Extraction Well	On-Site	28.50	10.00	26.50	6
EW-14	N	Y	Containment System Extraction Well	On-Site	26.50	9.00	24.50	6
EW-15	N	Y	Containment System Extraction Well	On-Site	27.00	9.00	25.00	6
EW-16	N	Y	Containment System Extraction Well	On-Site				
EW-17	N	Y	Containment System Extraction Well	On-Site	27.00	9.00	25.00	6
EW-2	N	Y	Containment System Extraction Well	On-Site	25.00	7.00	23.00	6
EW-3	N	Y	Containment System Extraction Well	On-Site	22.50	5.00	20.00	6
EW-5	N	Y	Containment System Extraction Well	On-Site	25.00	8.00	23.00	6
EW-6	N	Y	Containment System Extraction Well	On-Site	28.00	10.00	26.00	6
EW-8	N	Y	Containment System Extraction Well	On-Site	26.00	8.00	24.00	6
EW-9	N	Y	Containment System Extraction Well	On-Site	31.00	13.00	29.00	6
ITW-12	Y		Sampled Annually by Beazer	Off-Site	22.35	6.50	26.50	2
ITW-20	Y		Sampled Annually by Beazer	Off-Site	30.00	11.00	31.00	2
ITW-22	Y			Off-Site	30.54	3.00	13.00	2
M-1	Y		Source Area: Former North Lagoon	On-Site	21.00	11.00	21.00	2
M-10	Y			On-Site	13.00	3.00	13.00	2
M-11B	Y			On-Site	23.50	18.50	23.50	2
M-12	Y			On-Site	13.00	3.00	13.00	2
M-14	Y			On-Site	14.00	4.00	14.00	2
M-15B	Y		Source Area; Former Drip Track	On-Site	23.50	18.50	23.50	2
M-16A	Y			On-Site	13.00	3.00	13.00	2
M-16B	Y			On-Site	21.50	16.50	21.50	2
M-17	Y			On-Site	13.00	3.00	13.00	2
M-18	Y			On-Site	13.00	3.00	13.00	2
M-20A	Y			On-Site	13.00	3.00	13.00	2
M-20B	Y			On-Site	22.00	17.00	22.00	2
M-21A	Y		Source Area; Former South Lagoon	On-Site	13.00	3.00	13.00	2
M-21B	Y		Source Area; Former South Lagoon	On-Site	22.50	17.50	22.50	2
M-22A	Y		Source Area; Former Drip Track	On-Site	15.00	5.00	15.00	2

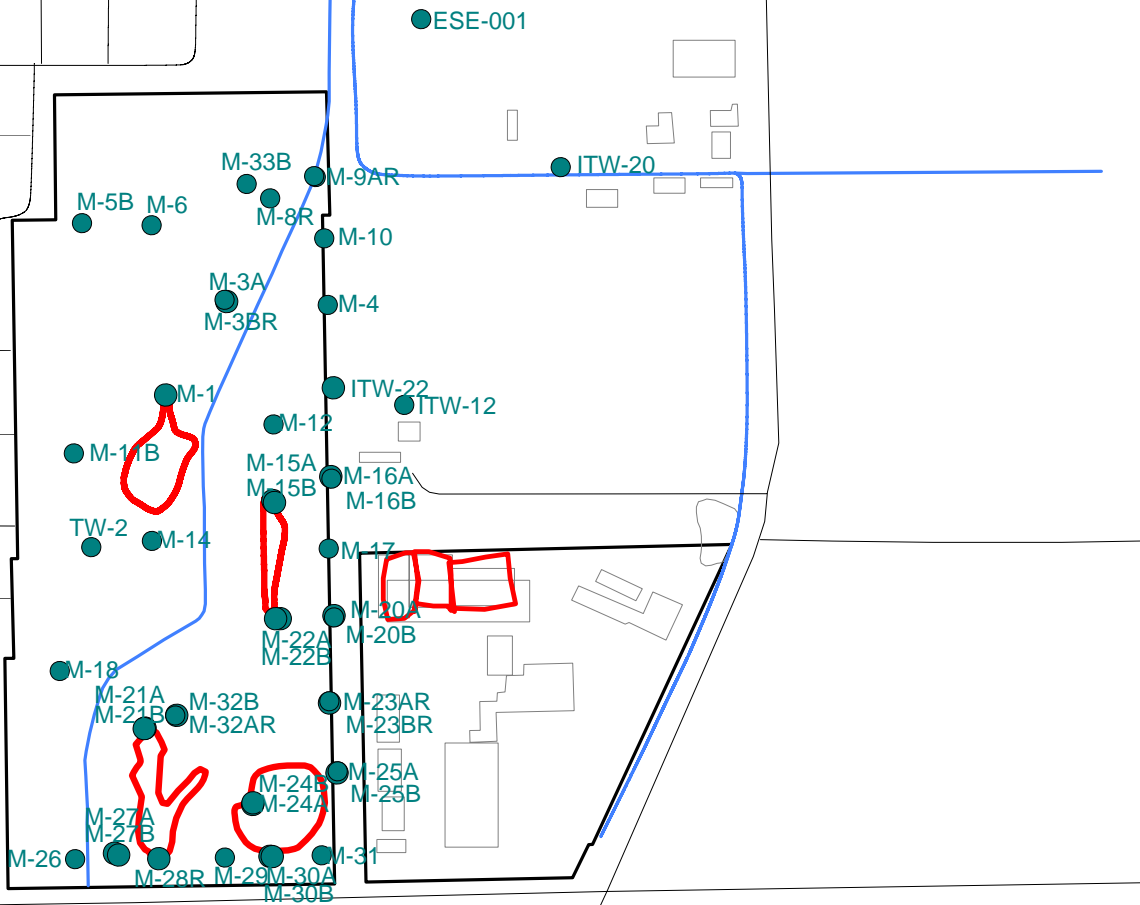
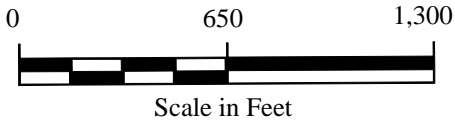
Table 1. Surficial Aquifer well redevelopment and sampling status for the Cabot Carbon/ Koppers Superfund Site.

Well ID	Redevelop & Sample Well (Y/N)	Redevelop Well Only (Y/N)	Well Status	Well Location	Total Depth (FT)	Top of Screen (FT BLS)	Bottom of Screen (FT BLS)	Well ID (IN)
M-22B	Y		Source Area; Former Drip Track	On-Site	27.00	22.00	27.00	2
M-23AR	Y			On-Site	13.00	3.00	13.00	2
M-23BR	Y			On-Site	23.50	18.50	23.50	2
M-24A	Y		Source Area; Former Process Area	On-Site	15.00	5.00	15.00	2
M-24B	Y		Source Area; Former Process Area	On-Site	25.50	20.50	25.50	2
M-25A	Y			On-Site	13.00	3.00	13.00	2
M-25B	Y			On-Site	23.00	18.00	23.00	2
M-26	Y			On-Site	13.00	3.00	13.00	2
M-27A	Y			On-Site	13.00	3.00	13.00	2
M-27B	Y			On-Site	20.00	15.00	20.00	2
M-28R	Y		Source Area; Former South Lagoon	On-Site	13.00	3.00	13.00	2
M-29	Y			On-Site	13.00	3.00	13.00	2
M-30A	Y		Source Area; Former Process Area	On-Site	13.00	3.00	13.00	2
M-30B	Y		Source Area; Former Process Area	On-Site	23.00	18.00	23.00	2
M-31	Y			On-Site	13.00	3.00	13.00	2
M-32AR	Y			On-Site	13.00	3.00	13.00	2
M-32B	Y			On-Site	23.00	18.00	23.00	2
M-33B	Y		Sampled Annually by Beazer	On-Site	27.30	22.30	27.30	2
M-3A	Y			On-Site	15.00	5.00	15.00	2
M-3BR	Y			On-Site	22.00	17.00	22.00	2
M-4	Y			On-Site	15.00	5.00	15.00	2
M-5B	Y		Sampled Annually by Beazer	On-Site	26.50	21.50	26.50	2
M-6	Y			On-Site	15.00	5.00	15.00	2
M-8R	Y			On-Site	15.00	5.00	15.00	2
M-9AR	Y			On-Site	15.00	5.00	15.00	2
M-9BR	Y			On-Site	26.50	21.50	26.50	2
TW-2	Y			On-Site	23.00	3.00	23.00	2



**Explanation**

- M-1 Surficial Well--Redevelop and Sample
- ◆ Extraction Well--Redevelop



**Figure 1. Locations of Surficial Aquifer wells proposed for sampling and redevelopment at the Cabot Carbon/Koppers Superfund Site.**