

August 19, 2008

Mr. Scott Miller
Remedial Project Manager
United States Environmental Protection Agency
Region IV, Superfund North Florida Section
61 Forsyth Street, SW
Atlanta, GA 30303

RE: GRU Comments to GeoTrans Response to Comments on the Upper Floridan Aquifer
Sentinel Monitoring Installation Work Plan

Dear Mr. Miller:

Attached are GRU's comments to the GeoTrans response to Comments on the Upper Floridan Aquifer Sentinel Monitoring Installation Work Plan. We continue to believe that the lack of separation between monitoring zones within the wells will reduce the validity of the sampling results, due to the potential for inter-well flow. At a minimum use of high resolution flow meters to evaluate gradients would help to determine the potential extent of inter-well flow.

Thank you very much for your on-going effort in addressing the Cabot/Koppers Superfund site. If you need additional information, please contact me at 352-393-1218.

Sincerely,



Rick Hutton, P.E.
Supervising Utility Engineer

xc: John Mousa (ACEPD)
Kelsey Helton (FDEP)
Mitchell Brouman (Beazer East, Inc.)
John Herbert, Brett Goodman (Jones Edmunds)
David Richardson, Ron Herget (GRU)
Correspondence

GRU DNAPL TEAM COMMENTS TO
GEOTRANS RESPONSE TO COMMENTS ON THE “UPPER FLORIDAN AQUIFER
SENTINEL MONITORING WELL INSTALLATION
WORK PLAN, REVISION 1

The GRU DNAPL Team submitted comments on June 18, 2008 to the Beazer’s Upper Floridan Aquifer Sentinel Monitoring Well Installation Work Plan for the Koppers Inc. Site dated May 20, 2008 (Work Plan). Beazer responded to comments by GRU and other stakeholders in a letter dated July 18, 2008. We stand by our previous comments. We believe it is particularly important to make the following points:

1. We continue to believe that Westbay (or equivalent) multi-port systems must be installed in both the UTZ and LTZ sentinel monitoring wells for the reasons specified in our June 18 comments.
2. Vertical flow within the wellbore, even at a low flow rate, will bias the analytical results. If we assume water flows into a well from one zone with higher head and out of the well into a zone with lower head, a 0.01 meter per minute velocity down (or up) the well casing, a 4 inch diameter well, and a 30 day duration of flow, then 3,699 gallons of water will have moved from one zone to another. Samples collected from the well will not be representative of groundwater in the zone with lower head – they will represent water from the zone with higher head from which the water flowed into the well.
3. We disagree with GeoTrans’ position that a monitor well with a long open-hole interval will necessarily yield groundwater data more representative of what would be produced in a nearby production well than a multilevel well would. Geotrans stated in their July 18 response to comments that “the concern has been expressed that groundwater quality within the individual wells will be dominated by the more permeable zones within the UTZ and LTZ.” The evaluation cited in comment #2 above is independent of permeability. Contaminated water may move vertically between zones of equal permeability due solely to unequal heads. If two zones of equal permeability are open to a well, where one zone has a lower hydraulic head but high contaminant concentration, then water from that contaminated zone with lower head will not be represented in the groundwater sample collected from the well.
4. We would expect a higher vertical gradient in the Floridan aquifer at the Koppers Site than is observed. Westbay personnel and Geotrans staff have made similar comments. Wells closer to the Murphree Wellfield show high vertical gradients in the Floridan. We believe that vertical gradients are likely higher than the data indicate and that as one gets closer to the wellfield – as these sentinel wells are – that vertical gradients will increase further.
5. Regarding additional geophysical logs, we recommend that Beazer use high resolution flow meters to evaluate vertical gradients in the wells rather than the spinner-type meters used previously.
6. Multilevel wells provide information regarding contaminant distribution that long well screens do not. Increasing contaminant concentrations with depth in well FW-12B would not have been detected had multilevel wells not been installed.