

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



REGION 4

61 Forsyth Street
Atlanta, Georgia 30303-3104

March 30, 2009
Mr. Greg Council, P.E.
Principal Engineer
GeoTrans Incorporated
1080 Holcomb Bridge Road
Building 100, Suite 190
Roswell, GA 30076

Dear Mr. Council:

Thank you for the December 28, 2008, "Upper Floridan Aquifer Interim Remedial Measure Work Plan" for the Cabot/Koppers Superfund Site. Our comments are as follows:

1. All groundwater samples should be analyzed for volatiles, semi-volatiles and arsenic using methods able to obtain the analytical detection limits achieved in previous groundwater testing at the Koppers Site from 2004 to 2007.
2. EPA does not agree with the language in the first paragraph of Section 2.6 regarding cessation of monitoring at FW-12B, FW-16B and FW-20B. We suggest that rather than specify any particular numeric criterion for stopping monitoring (or changing the monitoring frequency, zones sampled, et cetera), the IRM plan needs to indicate that quarterly monitoring data will continue to be obtained after the first quarterly sampling until the regulatory agencies and Beazer agree that the data being collected allow for a comprehensive assessment of the effects of the IRM on ground water at those monitoring points. Furthermore, the plan should then state that at that time, modifications to the monitoring plan or additional remedial actions would be considered, as appropriate.
3. The FW-21B sampling proposed in the second paragraph of Section 2.6 is not entirely acceptable. The IRM Work Plan proposes to only sample the upper two FW-21B monitoring zones. While these zones have historically been the most contaminated of the four zones, the deeper two monitoring zones have also periodically shown contamination. If the contamination detected at FW-21B is only partially a result of leakage around that well, then it is conceivable that post-pumping monitoring of the upper zones will indicate water-quality improvement there, even though the contribution from other sources of leakage has not been addressed by the IRM. Any effects of leakage around the well casing are expected to diminish with greater depth, and thus persistence of contamination in the deeper monitoring zones would more

clearly indicate the source of Floridan aquifer contamination is from some other area(s) of vertical contaminant leakage.

The plan proposes to install a plug between the two upper and two lower FW-21B monitoring zones. The rationale for installing the plug needs to be included in the Work Plan. Additionally, monitoring of the deeper zones should be considered for the periods when pumping is stopped to monitor the upper two FW-21B zones. This monitoring might be accomplished by removing the plug, and either monitoring all four zones without any hydraulic isolation between the zones or, if necessary, installing a temporary packer or seal to isolate the well between zone 2 and zone 3, with provisions made for sampling zones 3 and 4 while the temporary seal is in place. This plan, or some variant on this plan, entails some additional effort, but may be the best way to determine if there is any alternative pathway for contaminant leakage into the upper Floridan aquifer in the vicinity of FW-21B.

The Section 2.6 text should also note the possibility of further sampling of the FW-21B monitoring zones beyond the second sampling event (after the sampling that the Work Plan proposes after six months of IRM operation).

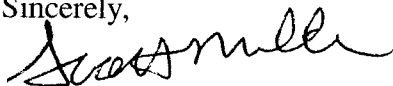
4. The IRM Work Plan needs to include a proposal for monitoring the discharge rate for the two extraction wells. Although the Work Plan proposes that each well will be pumped at a 2 gallon per minute rate, the actual flow rates of the pumping wells need to be established. I note that a 2 gallon per minute rate is apparently considered to be a maximum rate needed to contain potential leakage around the two wells (reference Work Plan Section 2.1). This approximate flow rate needs to be established and confirmed through documentation. If this rate is established through flow monitoring as the actual average approximate value for containment of any leakage around FW-6 and FW-21B, EPA would probably not conclude that stable or continued unacceptable contaminant concentrations observed at key Floridan aquifer monitoring points after IRM implementation are a result of an insufficient IRM pumping rate that is not capturing all of the leakage around the suspect monitoring wells. Instead, EPA will probably conclude that the persistence in concentrations is a result of contaminant leakage into the Floridan aquifer from some alternative pathways.
5. Groundwater samples should be collected from HG-16D near FW-6 and from HG-12D near FW-21B before pumping each IRM well. Additional samples from the noted Hawthorn wells should be collected after the start of IRM pumping on the first day of pumping, weekly for the first month, monthly for 2 months, and then quarterly or at the end of the test(s) if the test ends before a scheduled sampling event. Sampling the Hawthorn groundwater is essential to compare the chemical composition and any temporal changes to the groundwater recovered from FW-6 and FW-21B.
6. Groundwater samples should be collected from FW-6 and FW-21B (multi-level removed) immediately before pumping starts. Samples should be collected hourly for

the first four hours of the test(s) and then daily for the first week, weekly for the next month, monthly for 2 months, and then quarterly – or at the end of the test(s) if the test ends before a scheduled sampling event. Because the travel time to the Floridan is hypothesized to be very short in the Beazer Independent Groundwater Panel Report, initial groundwater samples should be collected hourly for the first four hours of the test and then daily for the first week. Groundwater samples should be collected from surrounding Floridan wells FW-12B, FW-16B, and FW-20B monthly for the first three months and then quarterly thereafter.

7. The Workplan does not include a discussion of what criteria will be used to interpret data obtained from the IRM. As you are aware, there is extensive debate as to the route that groundwater contamination took to make its way into the Floridan Aquifer. EPA would like to establish in advance criteria that Beazer will use to answer this specific question.
8. Tracer tests should be conducted at the existing lower Hawthorn monitoring wells closest to wells FW-6 and FW-21B in conjunction with more rigorous groundwater sampling during IRM implementation. The lower Hawthorn wells where the tracer should be added are HG-16D near FW-6 and HG-12D (the closest well to FW-21B). The intention of the tests is to further evaluate the hypothesis that rapid movement of ground water around the two Floridan aquifer monitoring wells is responsible for significant movement of contamination from the lower Hawthorn into the upper Floridan aquifer. Details of the tests can be further discussed later, but because of the proximity differences between the Hawthorn and Floridan wells at the two test areas, the test at FW-21B is expected to differ from the test at FW-6.

We would suggest that a follow-up conference call between Beazer East, GRU, FDEP, Alachua County and EPA would be productive. If we may be of assistance in this matter, please contact me at (404) 562-9120 or via miller.scott@epa.gov.

Sincerely,



Scott Miller
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Superfund Remedial Branch, Section C
Superfund Division