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To: steve.williams@epa.state.oh.us
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Bradley/STB/DUP@DUP, David M Rurak/AE/DuPont@DuPont
Subject: Letter Response Forthcoming/Rotosonic Questions

Hi Steve,

As per our phone conversation the other day, we will be sending our "Reply" to your Response to Comments/LHWA Investigation either tomorrow or Monday.

The other day you also raised the issue of sample heating during use of the Rotosonic drilling method. Our "Reply" is going to include an offer to switch from geoprobe to rotosonic as this will ensure boring advancement to total depth/bedrock. I will be faxing a technical paper on the subject to you following this note. Note: there are a number of papers on the subject, and basically all research on the subject conclude this is not a significant issue.

Let me give you some summary thoughts on why I think use of rotosonic should not be a concern:

- Heat generation only occurs during excessive friction situations. Commonly this would occur if a long stretch on unsaturated sand/gravel existed. At LHWA, the top 15 feet of unsaturated soils are moist/fine-grained clays/silts, which should not generate friction issues.
- Once in saturated zone at 15 feet, any issue related to heat should go away.
- A geoprobe, which is very thin diameter, can generate more heat than rotosonic (though even that method should be a non-issue at LHWA). Actually, with geoprobe, heat could become a factor at depth in sand and gravel where increased point resistance is encountered and we have to use more hammering action.
- C-8 is not volatile and heat should have little impact on soil concentration.
- With rotosonic, the sample is collected at the center of a 4-inch soil core where heat build-up is not a factor.

This sums it up. As I indicated previously, we would like to go ahead and use rotosonic for the investigation as this will ensure that the full scope of work is completed.

If you have any additional questions/concerns, please don't hesitate contacting me.

Andrew

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