Bernhardt, Aaron

From: Bernhardt, Aaron
Sent: Friday, April 03, 2009 12:52 PM
To: Keckler.Kymberlee@epamail.epa.gov; Hoskins.Bart@epamail.epa.gov; val.jurka@navy.mil; rtfinlayson@GFNET.com; richard.conant@navy.mil; Lewis, Mark; Kenneth_Munney@fws.gov
Cc: Rich, Corey
Subject: Area A Wetland
Attachments: April 2 2009 Conf Call Minutes_Area A Wetland.doc

All,

Attached are the conference call minutes for yesterdays call on the Area A Wetland, at New London.

Please let me know whether you have any corrections/comments/edits.

I sent an e-mail to the lab this morning with the action items. I will send out a revised table next week with the results using the combined reference set.

Thanks,

Aaron

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Conference Call Minutes
April 2, 2009
NSB-NLON, Groton, CT

Conference Call: April 2, 2009 (10:00 AM-11:15 AM)

Agenda Topics:

1. Area A Wetland Remedial Investigation.

Minutes Recorded by: A. Bernhardt

Participants:

U.S. Navy (Navy): Dick Conant, Val Jurka

Tetra Tech NUS (TtNUS): Corey Rich, Aaron Bernhardt

U.S. Environmental Protection Agency (EPA) Region I: Kymberlee Keckler, Bart Hoskins

Gannett Fleming (GF): Todd Finlayson

Connecticut Department of Environmental Protection (CTDEP): Mark Lewis

Summary of Discussions:

- The team discussed third black bullet on page 2 of the technical memorandum e-mailed to the regulators on March 3, 2009.
  - EPA requested the sentence be changed from: "If mean survival in any Site sample was statistically different from both the mean survival ***in the laboratory control sample and a majority of the reference samples***, ..." to "If mean survival in any Site sample was statistically different from both the mean survival ***in either reference sample***, ..."
  - A. Bernhardt suggested the sentence should be changed from: "If mean survival in any Site sample was statistically different from ***both*** the mean survival ***in the laboratory control sample and a majority of the reference samples***, ..." to "If mean survival in any Site sample was statistically different from ~~both~~ the mean survival ***in both reference samples***, ..." The revised sentence reflects how the data were interpreted throughout the memorandum.
  - It was agreed that the real issue is whether EPA agrees that sediment sample SD-81 is an acceptable reference sample. B. Hoskins indicated that they would discuss it internally and make a decision. B. Hoskins and D. Conant questioned whether some sort of averaging approach would work. A. Bernhardt indicated that the lab did compare the data from each site sample to the combined reference data set, and he would provide the results of that comparison.
  - This issue needs to be resolved because it is critical to the evaluation of the toxicity data.

- The team discussed the total organic carbon (TOC) correlation plots. A. Bernhardt said the plots were done based on an excerpt from the ASTM guide which states "... these data suggest that both the quality and quantity of organic carbon in natural and formulated sediments may represent an important confounding factor for the growth endpoint in tests with *C. tentans*." Based on the plots, the four samples with lower growth had lower TOC in the sediment samples, which adds to some of the uncertainty regarding the growth endpoint if TOC is a confounding factor. B. Hoskins indicated that typically he looks at ammonia as a confounding factor but does not consider TOC to be a significant confounding factor, unless TOC levels are very low (i.e., samples has a lot of sand or gravel).

- The team discussed the methods for trying to develop a cleanup level or cleanup area. A. Bernhardt suggested one idea may be the approach B. Hoskins mentioned at the March 16, 2009 technical meeting regarding basing the cleanup on toxic samples, and not a cleanup level. B. Hoskins was aware of a site EPA had used that approach. A. Bernhardt also said that although the correlations were low, the plots could be used to rule out some chemicals as potentially causing toxicity (i.e., inverse correlation plot). B. Hoskins agreed.

- B. Hoskins indicated that another approach is to determine which samples are considered impacted and then try to determine which chemicals are elevated in those samples to determine cleanup levels. A. Bernhardt agreed but said that approach would not work if all the samples were classified as impacted.

- There was discussion regarding the uncertainty in the growth endpoint for *C. dilutis* because of the high emergence rate of the midges prior to the test being completed. B. Hoskins said that occurs when the laboratory uses larvae that are too old. A. Bernhardt indicated that he would contact the toxicity test laboratory (Envirosystems) and ask them the following three questions:
    1. When were the eggs set up relative to the start of the test?
    2. Were the larvae introduced randomly to each sample and replicate?
    3. What were the chambers condition (i.e., was it too warm)?

Action Items:

- A. Bernhardt will contact the toxicity test laboratory and ask them the three questions listed above.
- A. Bernhardt will provide the results of the comparison of the site stations to the average reference station data.
- EPA will decide on the acceptability of using reference sample SD-81. EPA to decide and send out any additional evaluations of the data to the project team by April 14, 2009.
- A. Bernhardt will set up a conference call for April 16 at 10:00 AM to facilitate resolution of outstanding issues and develop a path forward.