

Response to Comments

Draft UFP-SAP for the Expanded Soil and Groundwater Background Study

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Introduction

The purpose of this document is to address comments on the Draft UFP-SAP - Expanded Soil and Groundwater Background Study. The North Carolina Department of Environment and Natural Resources (NCDENR) Superfund Section and the United States Environmental Protection Agency (USEPA) provided the comments listed below. Responses to comments are provided in bold.

NCDENR Comments (dated May 13, 2010)

1. The Soil Screening Standards listed in SAP Worksheets #15-1 through #15-6 should be updated to the new NC Superfund, Federal Remediation Branch (FRB) Tables. The updated FRB Tables reflect the EPAs updated Maximum Contaminant Levels (MCLs) date December 2009 and the NC DENR updated Groundwater Quality NCAC 2L Standards dated January 2010. Please make the appropriate corrections in the Final SAP Work Plan.

UFP-SAP Worksheets #15-1 through #15-6 will be updated with the Soil Screening Standards in the January 2010 Federal Remediation Branch Tables.

2. The SOP for low-flow groundwater sampling from monitoring wells is provided in Appendix B. The instructions in step nine on page 2 is acceptable and appropriate. However, as previously discussed with the partnering team, a purge rate less than 0.3 liters per minute often does not provide a representative groundwater sample from the aquifer. This is especially true if the screened interval of the monitoring well is greater than 5 feet in length. These extremely low purge rates provide discrete interval samples of the groundwater.

I acknowledge the White Paper on Low-Flow Sampling at the end of this section of the SOP and generally agree with these procedures. Every effort should be made to complete purging and sampling of monitoring wells consistent with these procedures. However, issues of volatilization are minor compared to the issue of discrete sampling of the aquifer and missing the more permeable section of the aquifer and thus the primary contaminant flow interval of the aquifer. If purging of the aquifer at rates less

than 0.3 liters per minute is required the well can be purged dry and sampled after recovery or other sampling methods should be considered (PDBs, etc.).

In general, if the water table drops slightly then we know that the entire screened interval is being purged and therefore a representative sample is being collected. This would be true of all types of aquifers even fine grained aquifers.

The first round of groundwater sampling has been completed. The standard operating procedure for low-flow groundwater sampling was followed and all wells were purged at a rate greater than or equal to 0.3 liters per minute (lpm) with the exception of one well (MW-02). This well was purged at a final rate of 0.2 lpm but had been purged at a higher rate prior to sampling and experienced draw-down.

During subsequent rounds of groundwater sampling for the Expanded Base Background Study, wells will be purged at a rate greater than or equal to 0.3 lpm when possible.

USEPA Comments (dated June 16, 2010)

1. SAP Worksheet #3, the email address for the EPA representative is incorrect (last name is misspelled).

The email address will be corrected.

2. SAP Worksheet #10 “background groundwater” question should state that locations are upgradient of any known waste sites (this would also include the UST areas).

UFP-SAP Worksheet #10 will be revised to state that monitoring wells will be installed at locations hydraulically upgradient of any known waste sites (including underground storage tank areas).