Summary of Changes: SOM02.0 to SOM02.1

The following Summary of Changes highlights the major modifications implemented in SOW SOM02.1 compared to SOW SOM02.0. Interested parties are strongly encouraged to read the complete SOW and familiarize themselves with all of the requirements.

SOM02.1

Exhibit A

- Requirements for thermometer calibration are specified in new Section 5.4.4.6.

Exhibit B

- **Section 1.1, Table 1.0, Item G; and Section 2.8** – The delivery schedule and distribution list of the MDL deliverables have been clarified.

- **Section 2.4.1** – The Complete Sample Delivery Group File (CSF) is now to be organized according to Form DC-2.

- **Sections 2.4.6.1 and 2.7.1; and SDG Cover Page** – The statement certifying the deliverables "…for other than the conditions detailed above…" in the Laboratory Manager's/designee's statement has been updated to "…for other than the conditions detailed in the SDG Narrative..."

- **Section 2.6.2** – The searchable requirement for the Portable Document Format (PDF) of the Complete Sample Delivery Group File (CSF) has been removed.

- **Section 3.3.14** – The requirement to report the calculated % Solids to three significant figures has been added.

- **Sections 3.4.4.2.9, 3.4.4.2.10, 3.4.4.2.11; and Form 3A-OR** – The "%" symbol has been deleted from the term "%RPD".

- **Section 3.4.18.2.3 and Form 8B-OR** – Form and instructions for the reporting of surrogates and of mean retention times have been updated.

- **Form 1A-OR** – A second GC column description line has been added to be used for dual column analyses.

Exhibit C

- **Table 3** –The CRQLs for 1,4-Dioxane have been lowered from 2.5 µg/L for low water samples and 2500 µg/kg for medium soil samples to 2.0 µg/L and 2000 µg/kg, respectively.

- **Table 3 and Endnote** – The following endnote reference K has been added for 3-methylphenol:

  "Semivolatile target analyte 3-methylphenol is included in this table ONLY for inclusion in the list of TCLP and/or SPLP analytes. Compounds 3-Methylphenol and 4-Methylphenol cannot be separated by the extraction techniques or GC columns used in this method. Therefore, both are represented in this SOW by the 4-methylphenol isomer only. Those data users who wish to analyze 3- and 4-methylphenol separately are encouraged to utilize the CLP-MA process to obtain data for these compounds from the derivatization/GC method (8041A or equivalent)."

- **Table 3** – The CRQLs for Butylbenzylphthalate have been lowered from 10 µg/L for water samples, 330 µg/kg for low soil samples and 10000 µg/kg for medium soil samples to 5.0 µg/L, 170 µg/kg and 5000 µg/kg, respectively.

Exhibit D

- **Introduction, Section 9.0** – For manual integrations, the requirement to "provide the original computer integrations for comparison" has been replaced with "provide the raw data and refer to Exhibit B, Section 2.4 for reporting manual integrations."

- **General, Section 8.2.1** – The remaining unused portion of the aqueous/water and soil/sediment samples must be stored within the laboratory until 60 days after delivery of a complete, reconciled data package to the U.S. Environmental Protection Agency (EPA), and may be stored at room temperature.

- **General, Section 8.3** – The holding times for ZHE extraction of volatile soil/waste samples, TCLP/SPLP extraction of non-volatile soil/waste samples, and TCLP/SPLP aqueous samples are specified as 10 days, 10 days, and 5 days from Validated Time of Sample Receipt (VTSR), respectively.

- **General, Section 10.2.3.2.3** – The requirement to perform any manipulation of the sample when cold (≤6 °C) during ZHE extraction of volatile samples has been removed.

- **Trace VOA, Section 9.1.2.2** – Resolution requirements have been clarified for the xylene isomers.

- **Trace VOA, section 12.4** – A new MDL study is no longer required after changing the GC column, as long as the replacement has the same length, inner diameter, and stationary phase.

- **Low/Med VOA, Section 8.3** – The NOTE has been deleted and the holding time for TCLP/SPLP leachate samples is now 7 days from completion of the TCLP/SPLP extraction.

- **Low/Med VOA, Section 9.1.2.3** – Resolution requirements have been clarified for the xylene isomers.

- **Low/Med VOA, Section 10.2.4.3** – The Contractor can now directly proceed with the medium level sample analysis if the concentration of any target analyte in the soil sample analyzed by the low-level method exceeds the concentration of the same target analyte in the high standard.

- **Low/Med VOA, Section 12.4.1** – A new MDL study is no longer required after changing the GC column, as long as the replacement has the same length, inner diameter, and stationary phase.

- **SVOA, Section 7.2.2.1.1** – The calibration standard concentrations for 1,4-Dioxane and 1,4-Dioxane-d8 have been lowered from 2.5, 5.0, 10, 20, and 40 ng/µL to 2.0, 4.0, 8.0, 16 and 32 ng/µL.

- **SVOA, Section 7.2.2.1.2** – Target analyte Acetophenone has been added to the list and the second instance of 4,6-Dinitro-2-methylphenol deleted.

- **SVOA, Section 8.3.1** – Extraction of TCLP/SPLP leachates is now to begin within 7 days from completion of the leaching procedure.

- **SVOA, Section 12.4.1** – A new MDL study is no longer required after changing the GC column, as long as the replacement has the same length, inner diameter, and stationary phase.

- **SVOA, Table 2:** The Decafluorotriphenylphosphine (DFTPP) Ion Abundance Criteria for mass 442 has been changed from "50.0 - 100% of mass 198" to "greater than 50.0% of mass 198", and the NOTE updated accordingly.

- **PEST, Section 8.3.1** – Extraction of TCLP/SPLP leachates is now to begin within 7 days from completion of the leaching procedure.

- **PEST, Section 9.3.5.9** – The %RSD of the Calibration Factors (CFs) of the two surrogates must now be ≤ 20.0%, as specified in Table 2.

- **PEST, Section 9.4.5.7** – The %D between the CF of each of the surrogates must now be in the inclusive range of ±30%, as specified in Table 2.

- **PEST, Section 12.4.1** – A new MDL study is no longer required after changing the GC column, as long as the replacement has the same length, inner diameter, and stationary phase."

- **PEST, Section 16.0:** "U.S. Environmental Protection Agency. Florisil Cleanup. SW-846 Method 3620C, Revision 3. February 2007." reference has been added as new Section 16.10.

- **PEST, Table 10** – Percent Recovery limits for both surrogates have been updated from 40-130 to 30-150.

- **ARO, Sections 9.3.4.1, 9.3.4.2, 9.3.4.3, 9.3.4.4, 9.3.4.7, 11.1.1.3, 11.2.1.2, 11.2.1.3, 11.2.1.4, 11.2.2.4, and 11.3.9.1** – The requirement for Aroclor-1221 has been reduced from five to three peaks.

- **ARO, Section 9.4.5.4** – For the opening CCV, the %D for each Aroclor surrogates calculated from the CCV standard must now not exceed ±30%, as specified in Table 2.

- **ARO, Section 10.4.3.3** – The requirements for sample dilution have been updated to be in line with those specified for Toxaphene in Exhibit D/PEST, Section 10.4.3.5. The sample must now be diluted, if the concentration of any Aroclor peak used for quantitation is greater than the concentration of the corresponding Aroclor peak in the high standard (CS5) on both columns

- **ARO, Section 12.4.1** –A new MDL study is no longer required after changing the GC column, as long as the replacement has the same length, inner diameter, and stationary phase."

- **ARO, Table 6** – Percent Recovery limits for both surrogates have been updated from 40-130 to 30-150.

Exhibit G

- Field Blank definition has been updated.

Exhibit H

- **Section 6.2** – The date in "SEDD_5-2_GENERAL_3_3.dtd 09/30/2009" has been updated to 10/22/2009.

- **Table 1. GC/MS Data Element Instructions** – "VOA_SIM" has been deleted in the Instructions column for data element Header/LabDataPackageName.

- **Table 1. GC/MS Data Element Instructions** – For data element SamplePlusMethod/Analysis/OriginalLabAnalysisID, "X" has been added in the Applicability column for all samples, and the Instructions updated from "Not required." to "If a dilution or reinjection is prepared from a previously analyzed sample, report the Lab File ID of the original sample from which the dilution or reinjection is prepared."

- **Tables 1, 2 and 3. GC/MS Data Element Instructions** – "VOA" has been added to the Instructions for data element SamplePlusMethod/PreparationPlusCleanup/AliquotAmount.

- **Tables 1, 2 and 3. GC/MS Data Element Instructions** – "Prep" has been added to the Instructions for data element SamplePlusMethod/PreparationPlusCleanup/InitialAmount.

- **Table 4. GC Data Element Instructions** – For data element SamplePlusMethod/Analysis/OriginalLabAnalysisID, "X" has been added in the Applicability column for MS/MSD, LCS, and all blank samples.

- **Appendix A, Table A-1** – "PreparationPlusCleanup/ClientMethodCode", in the Instruction column for ClientMethodCode, has been updated to "PreparationPlusCleanup/ClientMethodID".