

**Table 4-12
Deviations from SAPs**

From CDM SAPs	Deviation	Impact
Surface samples will be collected at 0-10 for surface sediment samples and multi-depth samples will be collected at 0-10, 10-20, 20-30 cm intervals.	Surface samples were collected at 0-15 cm and multi-depth samples were collected at 0-15, 15-30, and 30-45 cm intervals for Bayou Verdine only.	Sediment samples were collected at intervals to correspond with the intervals Conoco had used for their nature and extent investigation of Bayou Verdine. This provided consistency between data sets.
Multi-depth sample locations were to be selected based on the maximum number and concentration of SVOCs measured in the surface sediment samples. The measured SVOC concentrations will be available approximately 72-hours after analytical laboratory receipt.	Due to high moisture content in the sediments, the 72-hour turnaround was difficult to achieve. Analysis turnaround time was set at 14 days.	The quantity of vertical profile samples in Bayou d'Inde and Lower and Upper Calcasieu AOCs. Vertical extent was not determined in Phase I with the understanding that additional vertical profile samples will be collected in Phase II.
Sediment samples were to be collected with a petite Ponar®, modified Eckman dredge, or stainless steel push tubes.	In areas where the sediment had high clay content, the dredge sampler was unable to penetrate the surface. In these areas, an auger was used to collect the samples.	The auger collected a lower volume of sample that required multiple penetrations to collect the required sediment volume, which impacted time slightly.
No samples were to be collected in Bayou Olsen in Lower Calcasieu AOC.	Additional locations were sampled in the Lower Calcasieu AOC in Bayou Olsen. Samples were chosen by dividing the bayou into equal areas and randomly generating locations with the use of FIELDS.	Sampling of Bayou Olsen provided a larger area to characterize the nature and extent of contamination at the site.
CDM is to collect sediment and surface water samples in the Upper Calcasieu AOC, including Coon and Clooney Island Loops.	Data collected from Coon Island Loop was collected in a cooperative arrangement between EPA\CDM and Olin Corporation. Samples were collected in accordance with the Phase I RI SAP (except dioxin/furans which CDM collected).	Samples collected by Olin Corporation did not go through CDM's validation process. Data collected by Olin was determined usable.
CDM is to collect sediment and surface water samples in Bayou Verdine.	Data collected from Bayou Verdine was collected in a cooperative arrangement between EPA\CDM and Conoco. Samples were collected in accordance with the Phase I SAP.	Samples collected by Conoco did not go through CDM's validation process. Data collected by Conoco was determined usable.
SVOCs to be analyzed at UCR2023.	SVOCs were not analyzed for at UCR2023 by the laboratory. The chain of custody stated to analyze for SVOCs and the sample had been disposed of before it was noticed that analysis was missing.	Limited analysis at that location does not affect the investigation of nature and extent of the estuary.
SVOCs to be analyzed at UCR2034.	SVOCs were not analyzed for at UCR2023 by the laboratory. The sample was not marked for analysis on the chain of custody.	Limited analysis at that location does not affect the investigation of nature and extent of the estuary.

**Table 4-12 (continued)
Deviations from SAPs**

From CDM SAPs	Deviation	Impact
Analysis of Pesticides and PCBs (Pest/PCBs) at alternating locations in Reach 2 (Lockport Marsh) beginning with location BIR2001.	Pest/PCBs were not analyzed at alternating locations.	It was determined that Pest/PCB analysis was not needed at alternating locations to determine the nature and extent of contamination in Reach 2. The reach has a high density of sampling locations and is adequate to characterize Pest/PCBs.
TOC to be analyzed at BIR3018.	TOC was not analyzed at BIR3018 by the laboratory. The chain of custody marked that location for TOC analysis.	Limited analysis at that location does not affect the investigation of nature and extent of the estuary.
99BV1-R1002-015 was to be analyzed for SVOCs, Pest/PCBs, and VOCs.	Analysis was for SVOCs only.	It was determined that SVOCs were the only constituents needed to be analyzed at this location due to Conoco's participation in the sampling event. This did not impact the nature and extent characterization.
Sediment and surface water samples were not going to be collected during the Site Wide Ecological Reconnaissance in the Calcasieu Estuary.	Sediment and surface water locations were collected in the Calcasieu Estuary.	Sediment and surface water samples were collected at locations where tissue samples were collected to determine if there was a relationship between sediment and surface water contamination and tissue concentrations. This did not impact the nature and extent characterization.
Herbicides were to be collected during the Site Wide Ecological Reconnaissance.	It was determined in field that based upon limited detection results from the Phase I investigation; analysis of herbicides was not necessary.	Based upon Phase I data, herbicides were not widely detected nor at a high concentration and therefore did not pose a threat to wildlife.
During Phase II, soil samples from confined disposal facilities (CDFs) were to be analyzed.	The CDFs were not sampled once it was determined that the dredged material had been collected in accordance with COE requirements. These requirements include volume-based sampling as the material is removed.	Additional characterization in Phase II would have provided limited value given the CDFs are not sources of contamination.
For Phase II, sediment samples were to be analyzed for TAL Metals by AATS.	Samples were not analyzed for TAL metals in SQT sediments. Metal analysis was conducted by USGS for total recoverable metals, with the exception of two SQT sediment samples. These two samples provided overlap for comparison purposes. Mercury analysis was included in total recoverable metal analysis.	Metals analysis was still performed and at lower detection limits. Mercury analysis was conducted with frozen samples stored at the USGS-Columbia facility and analyzed by AATS.
Phase II required the sampling of Group 5 fish for the human health risk assessment.	Group 5 fish were not sampled, as it was determined that they are not a significant prey species to ecologic receptors nor do they serve as a common choice for human consumption.	Human and wildlife prey species consume Group 4 fish. Group 4 fish will meet the HHRA and BERA data needs.

**Table 4-12 (continued)
Deviations from SAPs**

From CDM SAPs	Deviation	Impact
SVOC and Pest/PCBs analysis to be conducted by AATS for sediment and porewater.	SVOC and Pest/PCB analysis was conducted by AATS, but for verification, EPA R6-Houston Laboratory analyzed all SQT samples for PAHs and GERG analyzed porewater samples for PAHS and PCBs.	Additional analysis provided lower detection limits then achieved with AATS.
The Phase II tissue design strategy did not include the collection of hermit crabs.	Additional sampling was conducted to collect hermit crabs for analysis.	Analysis of hermit crab tissue provided additional information needed for the BERA.
The Phase II tissue design strategy outlined 5 groups to collect representative tissue samples.	During the sampling event, the groups described in the Phase II SAP were broken down to smaller groups based upon field conditions and tissues being collected.	Refinement of the groups will assist in developing the BERA.