

District Quality Assurance Process

Technical Oversight Committee Meeting
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John Moorman, CQA
Field Quality Assurance Officer
Water Quality Monitoring Division

Overview

- **Blank collection and sample association**
 - December, 2010 LOX4 example
- **Marsh Sample Collection Procedure**
- **March 3, 2011 EVPA Event**
- **Data Validation and Investigation**
- **Data Qualification Process**
- **Resolution**

Blank Types

- **Pre-cleaned Equipment Blank (EB)**
 - Focus is effectiveness of equipment
Pre-cleaning process
- **Field Cleaned EB (FCEB)**
 - Focus is effectiveness of field cleaning
procedure
- **Field Blank (FB)**
 - Focus is background contamination from
sample processing environment

Precleaned Equipment Blank (EB)

- EBs are collected before sample collection
- Must be collected for each collection method / sampling train
- Analyte-free water processed through all sample collection equipment
- Collected at least quarterly for each project

Field Cleaned EB (FCEB)

- **Collected at least once per trip where equipment is cleaned in the field and more than two stations are sampled**
- **Must be collected for each collection method / sampling train**
- **Analyte-free water processed through all sample collection equipment that is field cleaned**

Field Blank (FB)

- **Collected only if no other blanks are collected during sampling event**
- **Analyte-free water poured directly into the sample container on site**

Blank-Sample Association

- **EB Association:**
 - Only with the sample having the same station ID and collection method / sampling train
- **FCEB Association:**
 - Only samples with the same collection method / sampling train as the FCEB
 - If an EB was taken, associate with all samples except the one that applies to the EB

Blank-Sample Association

- **FB Association:**
 - Only samples with the same collection method as FB
 - If an EB was taken, associate with all samples except the one that applies to the EB
 - If an FCEB was taken, then the FB applies only with the sample having the same station ID

Blank Association Example

- **December 2010 EVPA LOX4**
 - Two sampling trains were used
 - One EB was equal to or greater than the MDL and the other blank was not
 - The high EB and the associated sample were qualified
 - The blank and the samples were not qualified

Sample Collection Procedure

- When total depth is > 0.2 m the full amount of sample is collected
- When total depth is 0.1 m – 0.2 m, the TPO4 sample is collected
- When total depth is < 0.1 m, no sample is collected

March 3, 2011 EVPA Event

- Total depth was < 0.2 m at each station
- TPO4 sample was collected directly into the bottle
 - Equipment was not used to process sample
- For Project EVPA in the Refuge, when the total depth is 0.1 m – 0.2 m
 - Cl and SO4 sample is collected at the request of the FWS
 - Equipment is used to process sample

Validation Process

- **The routine validation process identified documentation inconsistencies**
 - Documentation indicated that the EB was collected at 12:35 and the receipt time-stamp was 12:27
 - EB was collected after the samples were processed
- **WQMD QA was notified of these issues and a process was initiated to determine if a qualifier code was warranted**

Data Qualifiers

- **62-160 F.A.C.**
- **SFWMD internal Qualifier - PMF**
 - Applied only when there is evidence of extenuating circumstances
 - Unusual situations where stated protocols are not specific
 - Infrequently used (0.01 %)
- **In this case the PMF was chosen**
 - Documentation and time inconsistencies

Resolution

- **At the completion of the investigation the PMF qualifier was not deemed necessary for the TPO4 data based on the following:**
 - The blank collected was representative of the TPO4 sample
 - The four hour holding time was met regardless of the time discrepancy
- **The next step is to initiate the process to remove the PMF from the database and revise the associated TOC reports**