

Chapter 10 – Data Qualification

Data stored in SWQMIS must be collected or acquired under a TCEQ-approved Quality Assurance Plan (QAP) or Quality Assurance Project Plan (QAPP). Each quality assurance (QA) document sets forth Data Quality Objectives (DQOs) for the data generated by the monitoring project. These DQOs establish the minimum data quality acceptable for the project. However, because SWQMIS is an archival repository for the agency's surface water quality data, any data stored may be used by a variety of users with diverse purposes. Because of this, it is strongly encouraged that all data is stored in SWQMIS, and any data not meeting the DQOs set forth in the quality assurance document be qualified accordingly¹. Data then becomes readily available in SWQMIS for all system users. The system users may then determine whether the data are of sufficient quality for their intended use.

Data Management and Analysis (DM&A) qualifies data that has not met DQOs using the data qualifier codes listed in Appendix E of this document. If a program area discovers data stored in SWQMIS that should be qualified, a [Data Correction Request](#) should be submitted to DM&A so that the qualifier can be added in SWQMIS. DM&A will consult with the program area that originally submitted the data before qualifying that data.

Instructions for qualifying records associated with Field Blank, Equipment Blank and Field Split QC failures are provided on the following page. A list of Data Qualifier Codes is provided in Appendix E of the DMRG.

¹ Data should be submitted to SWQMIS in accordance with the quality assurance document under which the data is collected. Not all QA documents allow qualified data to be submitted to SWQMIS.

SWQM Program Quality Control Sample Validation and Qualification

The Quality Assurance Advisory Committee has adopted new validation procedures for Field and Equipment Blank Quality Control (QC) failures and Field Split QC failures. DM&A staff will use this procedure when validating laboratory data submitted from the SWQM Program.

Field Blank QC Failure

1. At time of validation, the data manager identifies the type of analysis that was performed on the Field Blank (FB).

Note: Field Blanks are required for total metals in water samples and are optional for other types of monitoring (per [SWQM Procedures Manual: Vol I](#)).

2. If the sample is a total metals in water sample, the data manager identifies the associated ambient sample for each FB QC failure and qualifies the parametric results in the associated ambient sample's Sample Set.
3. If the sample is not a total metals in water sample, the data manager determines the date the sample was collected.
4. The data manager then requests a copy of the field notebook for that day from the appropriate region.
5. Once the data manager receives the copy of the field notebook, parametric values are qualified in the Sample Sets for ambient samples collected the same day as the failure with the appropriate data qualifier.

Equipment Blank QC Failure

1. At time of validation, the data manager identifies the type of analysis that was performed on the Equipment Blank (EB).

Note: Equipment Blanks are required for dissolved and total metals in water samples and optional for other types of monitoring (per [SWQM Procedures Manual: Vol I](#)).

2. If the sample is a dissolved or total metal in water sample, the data manager determines the associated ambient sample for each EB QC failure and qualifies the failed parametric values in the associated ambient Sample Set. If the sample is not a dissolved or total metals in water sample, the data manager identifies the date the sample was collected.
3. The data manager then requests a copy of the field notebook for that day from the appropriate region.
4. Once the data manager receives the copy of the field notebook copy, the parametric values are qualified for samples that are associated with the sample whose equipment blank failed QC. The ambient sample's parametric data for each of those associated samples is also qualified with the appropriate qualifier.

Field Split QC Failure

In the event that a parametric value for a Field Split fails QC, the data manager qualifies the same parametric values in the one Sample Set that is associated with the Field Split.