

Field Title	Field Name	Data Type	Description
Project	Project	Plain Text	The project to which the sample result is associated. Generally the Project is the purpose of the monitoring. One or more stations are associated with a project though a station may be associated with multiple projects. One or more projects are associated with a parent project and one or more parent projects are associated to a program. For monitoring that occurs over several years, the project name usually contains a time element of the larger parent project or program. A list of possible options is available at: <a href="http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=ProjectLookUp">http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=ProjectLookUp</a>
Station Name	StationName	Plain Text	Represents a unique sampling site. A single waterbody may have multiple stations. Station name is unique for all stations. A complete list of stations and station information is available at: <a href="http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=StationLookUp">http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=StationLookUp</a>
Station Code	StationCode	Plain Text	A unique code representing the StationName and site. A complete list of stations and station information is available at: <a href="http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=StationLookUp">http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=StationLookUp</a>
Sample Date	SampleDate	Date/Time	Refers to the date the sample was collected in the field.
Collection Time	CollectionTime	Date/Time	Refers to the time when the first sample of a sampling event at a specific station was collected in the field. Format equals hh:mm:ss. Default value equals 00:00:00 if unknown.
Collection Depth	CollectionDepth	Number	Records the depth or penetration, from the surface in the water or sediment column, at which the sample was collected.
Unit Collection Depth	UnitCollectionDepth	Plain Text	Refers to the units used in the CollectionDepth including cm (centimeters) and m (meters).
Location Code	LocationCode	Plain Text	Describes the physical location in the waterbody where the sample was collected. One sampling event may have a single or multiple locations. Default value equals Not Recorded if unknown. A list of possible options is available at: <a href="http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=LocationLookUp">http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=LocationLookUp</a>

Sample Type Code	SampleTypeCode	Plain Text	Refers to the type of sample collected or analyzed. Default value equals Not Recorded if unknown. A list of possible options is available at: <a href="http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=SampleTypeLookUp">http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=SampleTypeLookUp</a>
Collection Replicate	CollectionReplicate	Plain Text	Used to distinguish between replicates created at a single collection in the field. Default value is 1. Replicate samples are collected at the same station and date. Therefore, samples collected on different dates from the same station should both have a value of 1 for FieldReplicate.
Lab Replicate	LabReplicate	Plain Text	Identifies the individual splits of the toxicity sample and is used to identify from which replicate a result originated.
Lab Sample ID	LabSampleID	Plain Text	Recommended field intended to provide lab specific identification for an analyzed sample.
Matrix Name	MatrixName	Plain Text	Refers to the sample matrix, e.g. samplewater. Default value equals Not Recorded if unknown. A list of possible options is available at: <a href="http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=MatrixLookUp">http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=MatrixLookUp</a>
Method Name	MethodName	Plain Text	Refers to the analysis method used by the laboratory to analyze the sample. Default value equals Not Recorded if unknown. A list of possible options is available at: <a href="http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=MethodLookUp">http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=MethodLookUp</a>
Test Duration	ToxTestDurCode	Plain Text	Indicates the duration of the toxicity test as a number and includes the associated units.
Organism Name	OrganismName	Plain Text	Scientific name of the species used in the toxicity test.
Analyte	Analyte	Plain Text	Name of the analyte or parameter for which the analysis is conducted and result is reported. A list of possible options is available at: <a href="http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=AnalyteLookUp">http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=AnalyteLookUp</a>

			A unique code, provided by the laboratory, which represents a group of samples processed together. It groups all environmental samples with their supporting QC samples and will be used to verify completeness. Batches should only include one species and should not combine test types, i.e. reference toxicants and sample results should not be in the same batch. It is recommended that the species code be included in the ToxBatch. To ensure uniqueness in the CEDEN system, the LabAgencyCode may be appended to this value when loaded to CEDEN. Please use a standard format to construct a composite ToxBatch. Format as ToxBatch a dash – and the AgencyCode. Example: Batch1-SCCWRP.
Tox Batch	ToxBatch	Plain Text	
Analyte Unit	Unit	Plain Text	Indicates the units used in the measurement of the Analyte.
Water Quality Source	WQSource	Plain Text	Differentiates between water quality measurements taken in the overlying water or interstitial water (pore water). Default value equals Not Applicable for toxicity endpoints.
Time Point Name	TimePointName	Plain Text	Refers to the point in time during the test at which the measurement was recorded for water quality measurements or the day on which the end points were taken. Example if a test was originally going to last 7 days but the endpoints were taken on the 6th day then the TimePoint would indicate “Day 6”. A list of possible options is available at: <a href="http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=TimePointLookUp">http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=TimePointLookUp</a>
Result	Result	Number	Numeric result of test. Result may be left blank as long as an appropriate ResQualCode is provided.
Result Qualifier Code	ResultQualCode	Plain Text	The Result Qualifier Code or ResultQualCode qualifies the analytical result of the sample. Default value equals “=”. A list of possible options is available at: <a href="http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=ResQualLookUp">http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=ResQualLookUp</a>
Tox Result QA Code	ToxResultQACode	Plain Text	Used to further qualify the analytical result of the sample. Default value equals None. A list of possible options is available at: <a href="http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=ToxResultQALookUp">http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=ToxResultQALookUp</a>

QA Code	QACode	Plain Text	Applied to the result to describe any special conditions, situations or outliers that occurred during or prior to the analysis to achieve the result. The default code, indicating no special conditions, is 'None'. If more than one code needs to be applied to a record, the convention is to list them in alphabetical order separated by commas and no spaces. Default value equals NR if unknown. A list of possible options is available at: <a href="http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=QALookUp">http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=QALookUp</a>
Batch Verification Code	BatchVerificationCode	Plain Text	Unique code referencing the Verification of a Batch. Default value equals NR if unknown. A list of possible options is available at: <a href="http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=BatchVerificationLookUp">http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=BatchVerificationLookUp</a>
Compliance Code	ComplianceCode	Plain Text	Unique code referencing the compliance with the associated Quality Assurance Project Plan (QAPP). Default value equals NR if unknown. A list of possible options is available at: <a href="http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=ComplianceLookUp">http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=ComplianceLookUp</a>
Sample Comments	SampleComments	Plain Text	Used for any notes or comments specifically related to the sample collection.
Collection Comments	CollectionComments	Plain Text	Comments related to the lab collection.
Tox Test Comments	ToxTestComments	Plain Text	Holds any comments related to the toxicity test results. Usually provided by the laboratories or QA personnel. Examples include: comments about sample test anomalies, temperature changes, high DO values that may affect all other results, etc.
Time Point Comments	TimePointComments	Plain Text	Comments related to the TimePointName field.
Tox Result Comments	ToxResultComments	Plain Text	Notes any comments necessary to describe special circumstances for the toxicity results data for the specific record. These could be comments needed to clarify any portion of the analysis which is not described in any other field. Examples include: survival may be low due to lost individuals, questionable hardness due to probe variances, etc.
Tox Batch Comments	ToxBatchComments	Plain Text	Explains any irregularities in sample processing and/or execution of the testing procedures for the Toxicity Batch (ToxBatch field) as a whole.

EventCode	EventCode	Plain Text	Represents the primary reason, i.e. water quality, tissue or bioassessment sampling, of the sampling event at a particular station and date.
Protocol Code	ProtocolCode	Plain Text	Represents the sampling protocol used, which includes the set of methods, methodology and/or specifications, such as MPSL-DFG_Field_v1.0. Established protocols may be used or Regions may document their own sampling protocols. The default value of Not Recorded is utilized for environmental samples if unknown. For LabQA samples utilize Not Applicable. A list of possible options is available at: <a href="http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=ProtocolLookUp">http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=ProtocolLookUp</a>
Sample Agency	SampleAgency	Plain Text	Refers to the organization or agency that collected the sample. This should be listed on the Chain of Custody (COC) document that accompanies the samples from the field. Default value equals Not Recorded if unknown.
Collection Method Name	CollectionMethodName	Plain Text	Refers to the general method of collection such as Sed_Grab, Sed_Core, Water_Grab, Autosampler24h, Autosampler7d. The default value of Not Recorded is utilized for environmental samples if unknown. LabQA samples utilize Not Applicable. A list of possible options is available at: <a href="http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=CollectionMethodLookUp">http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=CollectionMethodLookUp</a>
Target Latitude	TargetLatitude		Represents the targeted latitude for the sample site in decimal degrees with 5 decimal places.
Target Longitude	TargetLongitude		Represents the targeted longitude for the sample site in decimal degrees with 5 decimal places (must be negative).
Collection Device Name	CollectionDeviceDescription		Name of the CollectionDevice. Default value equals Not Recorded if unknown. A list of possible options is available at: <a href="http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=CollectionDeviceLookUp">http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=CollectionDeviceLookUp</a>
Position Water Column	PositionWaterColumn	Plain Text	Position in water column where sample was taken. Default value equals Not Applicable if unknown.
Toxicity Identification Evaluation	TIENarrative	Plain Text	Short narrative on the results of the toxicity identification evaluation (TIE).

Dilution	Dilution	Number	Dilution is recorded as a proportion of the original sample. If no dilution is performed, the default value of '100' is used. A sample with 80% sample and 20% blankwater has a dilution value of '80'. Values of -88 indicate no data.
Toxicity Point Method	ToxPointMethod	Plain Text	Refers to the general method used in obtaining or calculating the result. Toxicity replicate and summary data have a default value of 'None' unless a method other than the test MethodName is used for the calculations. Water quality measurement results have a default value of 'ToxWQMeasurement'.
Treatment	Treatment	Plain Text	Refers to any treatment performed on the sample, such as a pH adjustment. Default value is 'None'.
Unit Treatment	UnitTreatment	Plain Text	UnitTreatment refers to the units used in the treatment. When the treatment is none, the default for unit is 'None'.
Treatment Concentration	TreatmentConcentration	Number	Refers to the adjusted final concentration or value of the analyte applied to the toxicity sample, expressed as a number. Default value is '0'.
Lab Agency	LabAgency	Plain Text	Refers to the organization, agency or laboratory that performed the analysis on the sample. Default value equals Not Recorded. A list of possible options is available at: <a href="http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=AgencyLookUp">http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=AgencyLookUp</a>
Submitting Agency	SubmittingAgency	Plain Text	Organization or agency that is responsible for submission of the data to the database. This agency may be different from LabAgency if the toxicity tests were subcontracted to another agency. A list of possible options is available at: <a href="http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=AgencyLookUp">http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=AgencyLookUp</a>
Toxicity Batch Start Date	ToxBatchStartDate	Date/Time	Refers to the date the toxicity test began. Default value equals Jan 01 1950 12:00AM if unknown.
Reference Toxicity Batch ID	RefToxBatch	Plain Text	Lists the Reference Toxicity Batch ID (ToxBatch field) run with this batch of samples. Default value equals Not Recorded if unknown.
Organism Age At Test Start	OrganismAgeAtTestStart	Plain Text	Indicates the age or age range (e.g. 7 days or 7-10 days) of the test organisms at the beginning of the test. The age or range is usually recommended by the method.

Lab Submission Code	LabSubmissionCode	Plain Text	A unique batch qualifier code assigned to the ToxBatch as a whole by the analyzing laboratory which references the quality of the data in the ToxBatch. Default value equals NR if unknown. A list of possible options is available at: <a href="http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=LabSubmissionLookUp">http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=LabSubmissionLookUp</a>
Percent Difference From Control	PctControl		Percent difference between the mean of the endpoint and the mean of the control's associated endpoint; $((\text{Mean Control Response} - \text{Mean Sample Response}) / \text{Mean Control Response}) * 100$ .
Replicate Count	RepCount	Number	Total number of sample replicates analyzed for the associated toxpoint in the toxicity test (i.e. RepCount equals the number of lab replicates used to calculate the mean result).
Mean	Mean	Number	The average result calculated from all replicates of a single sample.
Standard Deviation	StdDev	Number	Standard deviation, which is a statistic that indicates how tightly all the replicates are clustered around the mean in a set of data. This calculation includes all the applicable replicates from a single sample.
Statistical Method	StatMethod	Plain Text	The statistical test or method used to calculate the probability of whether a test is significant or not. Used to determine whether the sample replicates are significantly different from the control. Default value equals NR when unknown.
Probability	Probability	Number	Calculated statistical type. For example Probability or T value.
Alpha Level	Alphalevel	Number	The predetermined statistical acceptance level that is not calculated, but is chosen by the laboratory when running the statistical method.
Evaluation Threshold	EvalThreshold	Number	The evaluation threshold is the programmatic level that is used to identify that an environmental sample is biologically significantly different from its associated control sample and is recorded as a percentage. EvalThreshold is compared to the PercentEffect field. In cases where programs use program specific MSDs the EvalThreshold will equal the MSD and will be compared to the PercentEffect. If utilizing the TST method this field corresponds to the critical difference in the EPA TST methods.

Minimum Significant Difference	MSD	Number	<p>The minimum significant difference (MSD) is a measurement that can be produced for each statistical comparison performed between sample and control, or among multiple concentrations of a sample and control. It represents the smallest significant difference from the control and is unique for each statistical comparison. This number should be reported as a percentage, e.g., '20' = 20%.</p> <p>For the EPA TST method there is no MSD value therefore the MSD field should be left blank.</p>
Toxicity Significant Effect Code	SigEffectCode	Plain Text	<p>The toxicity significant effect code or SigEffect indicates whether the sample result is significantly different from the control and can include whether or not it is greater or less than the evaluation threshold. Default value equals NR for environmental samples. Default value equals NA for LABQA with a CriticalValueType of Probability. A list of possible options is available at: <a href="http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=SigEffectLookUp">http://ceden.org/CEDEN_Checker/Checker/DisplayCEDENLookUp.php?List=SigEffectLookUp</a></p>
Sample ID	SampleID	Plain Text	<p>Unique identifier supplied by the organization directing the sampling or sampling agency and is used to track the sample throughout the sampling and analysis processes. This field can be used to tie a result to the sample.</p>
Location	Location 1	Location	Latitude and longitude of the station surveyed.