

MAINE DEP EGAD EDD VERSION 6.0 USER MANUAL

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1. INTRODUCTION

The Maine Environmental and Geographic Analysis Database (EGAD) is a comprehensive utility to store and access a broad range of environmental data including physical, chemical, biological, and spatial data. In order to streamline the entry and submittal of data into EGAD, the Maine Department of Environmental Protection (ME DEP) Electronic Data Deliverable (EDD) was developed and is the required standard template for laboratory and field data submittals to EGAD. Authority for this requirement is granted under Maine's Uniform Electronic Transaction Act, [10 M.R.S. §9418 \(2\) \(A\)](#).

2. EDD OVERVIEW

The ME DEP EGAD EDD version 6.0 (EDD v6.0) became the only accepted EDD format beginning on November 1, 2015. All EDD materials, including this EDD v6.0 User Manual and [Appendices 1 thru 3](#), are located on the EGAD Webpage (<https://www.maine.gov/dep/maps-data/egad/>) under the “Electronic Data Deliverable” section. [APPENDIX 1](#) contains the EDD v6.0 Template spreadsheet (under the worksheet titled “EDD”). This worksheet contains the EDD template for all chemical, field, and physical measurement data (including water level and flow data). The worksheet titled “READ_ME” contains basic instructions and contact information for EDD v6.0. The final worksheet, titled “DATA_ELEMENT_DICTIONARY” (Data Dictionary), lists all the fields in the EDD along with additional information. The Data Dictionary is explained further in Section 3.2.

Non-sample data and samples taken but not analyzed are special circumstances. For these circumstances, fewer fields in the EDD are required. Please see further descriptions in Section 4.4 and [APPENDIX 2](#) for examples. All appendices can be found on the [EGAD Webpage](#).

2.1. Lookup Values & Tables

Use Lookup (LUP) Values from the appropriate LUP Tables whenever it is indicated in the Data Dictionary that a field must be filled out according to a LUP Table. Up-to-date LUP Tables and Values can be found on the [EGAD Webpage](#), specifically in [APPENDIX 3](#). The LUP tables are updated monthly to reflect the most up to date LUP table values. Please contact the appropriate EGAD Data Manager if a necessary lookup value is not included in a LUP table.

2.2. Using the EDD Data Element Dictionary (Data Dictionary)

The Data Dictionary worksheet of [APPENDIX 1](#) contains information about each of the fields in the EDD. For each field in the EDD, the Data Dictionary identifies the field name, format, definition, the LUP table where appropriate values for the field can be found (if applicable), the requirements for the field based on data type [i.e., whether a field is required, conditional (required in certain circumstances), optional, or not applicable], and the default value if the field is left blank.

2.2.1. Data Types

Many kinds of data are stored in EGAD, and therefore, submitted via EDD. Different “data types” have different requirements for submittal. The data type categories in the Data Dictionary were created to help identify which fields need to be populated in the EDD for each type of data submitted. See Data Dictionary in [APPENDIX 1](#) for more information.

2.2.2. Field Requirement Definitions

For each data type, it is indicated whether a value in each field is required, conditional, optional, or not applicable. See Data Dictionary in [APPENDIX 1](#) for more information.

2.2.3. Field Name

This column lists the fields in the EDD.

2.2.4. Field Format

This column identifies the format of the EDD field (Text, Time, Date, or Number).

2.2.5. Definition

This column provides a description of the EDD fields and identifies special considerations when populating the field. For example, it is noted in definitions for the Method Detection Limit (MDL) and Instrument Detection Limit (IDL) fields that the reported values must be in the same units as the reported concentration.

2.2.6. Valid Values/LUPs - Refer to the following Look-Up Tables

This column lists the appropriate LUP table for fields that must be populated with a LUP value. Fields that are not subject to a value in a look-up table have a grey box.

2.2.7. Default Value if Null

This column identifies the value that will be populated in the field if the field is left blank, i.e. null. Fields that do not have a default value if left null will have a grey box.

3. HOW TO FILL OUT AN EGAD EDD

Because so many types of data are submitted by EDD, it is unrealistic to provide single step-by-step guidance to fill out an EGAD EDD. Instead, given below are general rules and guidelines for filling out EDDs correctly for most scenarios. Please also consult the EDD Examples file in [APPENDIX 2](#).

All types of data can be submitted together in the same EDD. For instance, laboratory quality control (QC) data is submitted together with normal environmental samples. Additionally, field and water level data can also be submitted in the same EDD as laboratory data. Please do not submit EDDs as multiple tabs within a single workbook file. If more than one EDD is being submitted, please submit each as a separate file.

3.1. General Instructions

3.1.1. Sample Point Name

SAMPLE_POINT_NAME is a DEP defined ID used in uploading and storing data in EGAD. It is important that this ID be exact and consistent. It is a location identifier, not a sample ID. In contrast, SAMPLE_ID is an all-purpose identifier field that can vary from sample to sample and event to event. Samplers, labs, consultants, etc. are free to use the SAMPLE_ID field as they choose, or as defined on a chain of custody form. For many DEP projects/sample events, the Sample Point Name and the Sample ID will be the same, but it does not have to be. For example, if the sample was collected from a monitoring well, “MW-01”, this could be both the Sample Point Name and the Sample ID. However, the person collecting the sample may prefer to give the sample a unique Sample ID, such as “MW-01-010120”. For QC samples not originating at a site, please use “QC” as the Sample Point Name.

3.1.2. Lab Sample ID and Sample ID

Any identifier can be included in the LAB_SAMPLE_ID or the SAMPLE_ID field. For laboratory data, the laboratory LIMS sample identifier is reported in the LAB_SAMPLE_ID field. The DEP stores the Lab Sample ID in order to track and identify samples if there are questions or if additional information is needed from the lab. For field samples and measurements, this field can be left blank. The SAMPLE_ID field can be used to store a Sample ID assigned by either the DEP or an outside party. This ID is independent of the Lab Sample ID. The sample identification submitted on the laboratory Chain of Custody (COC) is submitted in the EDD in the SAMPLE_ID field.

3.1.3. Non-Detects, Zero Values, and No Data

- EGAD stores null for values of ‘no data’. If it is not a required field, please leave the field as null, i.e. do not populate with “NONE”, “9999”, “NA” or other indicators of no data.
- The CONCENTRATION field must be numeric and non-zero or null in most circumstances, i.e. not populated with “ND”, “NA”, “<” etc. All non-detect data are indicated by having a null in the CONCENTRATION field and a “U” (for non-detect) in the LAB_QUALIFIER field and, if applicable, in the VALIDATION_QUALIFIER field (see Data Validation section below). For laboratory data, the REPORTING_LIMIT (RL) and either the MDL or the IDL must be reported in the appropriate EDD fields.
- For samples detected below the RL and above the MDL, the concentration is reported in the CONCENTRATION field, a “J” (for estimated) is entered in the LAB_QUALIFIER field and, if applicable, in the VALIDATION_QUALIFIER field. Both the Reporting Limit (RL) and either the MDL or IDL must be populated.
- For field data (from field instruments such as turbidity, DO, and specific conductance meters, or test kits such as spectrophotometers, color wheels, and titration test kits) resulting in zero values, the CONCENTRATION field is left null and the LAB_QUALIFIER field populated with a “U” for non-detect. The lower range or limit of the test kit or field instrument must be reported in the REPORTING_LIMIT field.
- For continuous data, replace zeroes with the lower range or limit of the sonde/logger. Zero

values in the CONCENTRATION field are acceptable only for parameters where numeric values go through zero and can have both positive and negative values. Examples of these parameters include Temperature, Oxidation Reduction Potential (ORP), Flow (Current or Adjusted), Landfill Gas Pressures, and Laboratory QC results reported in units of Percent Recovery (% R) and/or Relative Percent Difference (RPD) as discussed further in Section 4.2.

3.1.4. Reporting Limits, Method Detection Limits, and Instrument Detection Limits

The Reporting Limit (RL) and either the Method Detection Limit (MDL) or Instrument Detection Limit (IDL) must be reported for all laboratory samples identified as estimated detections (i.e. J flagged below the RL) and for results identified as non-detect, unless not required by the method. RLs, MDLs, and IDLs must be reported in the same units as the concentration results. The RL is generally equal to the laboratory Practical Quantitation Limit (PQL) which is reported by the laboratory in the REPORTING_LIMIT field for most analyses. Under special limited circumstances, laboratories may evaluate results to lower limits. When this is the case, the laboratory may report the lower limit in the REPORTING_LIMIT field. The lowest acceptable reporting limit in these cases is the laboratory MDL or IDL. For laboratories running samples for Department of Defense (DOD) sites or projects, the Method Detection Limit (MDL) should go in the MDL field and the Limit of Detection (LOD) in the REPORTING_LIMIT field. The Limit of Quantitation (LOQ) may be entered in an open field such as LAB_COMMENT or SAMPLE_COMMENT but doing so is not a requirement.

3.1.5. Dilutions

Data that have been analyzed at multiple dilutions can be reported in one of two ways. Either all results at all dilutions can be reported, or only the most appropriate result and corresponding dilution can be reported. The most appropriate result for each parameter will vary across sample results and is decided at either the consultant's or DEP's discretion. If the consultant evaluates which dilutions are the appropriate results in a report, please flag the "non-appropriate" results with a value of "NRR" (i.e. a non-reportable result) in the VALIDATION_LEVEL field. Lastly, the reporting limit must reflect any dilutions used and the dilution factor must be provided in the DILUTION_FACTOR field.

3.1.6. CAS Number and Parameter Names

The CAS (Chemical Abstract Service) Number uniquely identifies all known chemical substances. It is a numeric identifier managed by the American Chemical Society and cannot be associated with more than one parameter. For any parameters without official CAS Numbers, such as physical and field measurements, EGAD will have an assigned CAS Number that begins with "DEP". For PARAMETER_NAME, many parameters can go by multiple names. For example, "1,1,2,2-Tetrachlorodifluoroethane" and "Freon-112" refer to the same compound, and either name is acceptable for submitting in an EDD.

Notwithstanding the exceptions listed in the "[Special Considerations](#)" section, the field PARAMETER_NAME is required for all data types. For all normal and QC laboratory data, the CAS Number should be filled in the CAS_NO field and cannot be associated with more than one

Parameter Name. For a list of up-to-date Parameter Names, please refer to the CAS_LUP worksheet in [APPENDIX 3](#).

3.1.7 Filtered Samples (Total/Dissolved Fraction)

The field **PARAMETER_FILTERED** indicates whether the result was derived from the filtered or unfiltered component of the aqueous (e.g. groundwater, surface water) sample, corresponding with the total/dissolved fraction. If the result was filtered, indicate the location of filtration (in the field or the lab), by using the correct LUP table value for “Filtered - Field” (FF) or “Filtered - Lab” (FL). If the result was not filtered, use “Unfiltered” (U). This field is populated for any filtered parameter and is required, whether filtered or unfiltered, for the list of parameters listed in below in Table 1.

Table 1. Parameters for which the field **PARAMETER_FILTERED must be populated.**

Metals		Other Analytes
Aluminum	Phosphorus, White	Ammonia as N or as NH3
Antimony	Potassium	Ammonium as N or as NH4
Arsenic	Selenium	Bromide
Barium	Silica	Chloride
Beryllium	Silver	Chlorophyll
Boron	Sodium	Chlorophyll A
Cadmium	Strontium	Chlorophyll A - Phaeophytin
Calcium	Thallium	Dissolved Organic Carbon
Chromium	Thorium	Fluoride
Chromium III	Tin	Nitrate + Nitrite as N or as NO3
Chromium, Hexavalent	Titanium	Nitrate as N or as NO3
Cobalt	Uranium	Nitrite as N or as NO2
Copper	Vanadium	Organic Nitrogen as N
Iron	Zinc	Organic Phosphorus as P
Lead		Orthophosphate as P or as PO4
Lithium		Sulfate
Magnesium		Total Inorganic Carbon
Manganese		Total Kjeldahl Nitrogen as N
Mercury		Total Nitrogen as N
Molybdenum		Total Organic Carbon
Nickel		Total Phosphorus as P or as PO4

3.1.8 Samples Taken at Different Depths

If indicating that a sample was taken at a discrete depth, use the **SAMPLE_DEPTH** and **SAMPLE_DEPTH_UNIT** fields (e.g. a sample collected at 3 FT). Use the

SAMPLE_DEPTH_INTERVAL_TOP, SAMPLE_DEPTH_INTERVAL_BOTTOM, and SAMPLE_DEPTH_INTERVAL_UNIT fields when a sample is taken over a range or an interval of depths.

3.1.9 Test Methods and Prep Methods

When the Prep Method is documented as part of the Test Method used, the PREP_METHOD field should be populated with "Method". If a distinct Prep Method, separate from the Test Method is used, the PREP_METHOD field is populated with that method and the fields PREP_DATE and PREP_TIME must be populated. A second prep method can be reported in the PREP_METHOD2, PREP_DATE2 and PREP_TIME2 fields. The second prep method fields are required for Toxicity Characteristic Leaching Procedure (TCLP), Synthetic Precipitation Leaching Procedure (SPLP), and Total Oxidizable Precursor Assay (TOP Assay) data.

3.1.10 Weight Basis for Soil, Sediment, & Tissue Samples

For Soil, Sediment, and Tissue samples, indicate how the samples are being reported in the WEIGHT_BASIS field. The value must be either "Wet" for wet-weight basis, "Dry" for dry-weight basis, or "LIP" for lipid-weight basis. Reporting Limits must reflect the moisture content of the samples.

3.1.11 Water Level Data

There are several common water level measurements submitted to EGAD. These include Water Level Depth (a groundwater measurement, sometimes called 'Depth to Water'), Water Level Height (a surface water measurement), Water Level Elevation, and Measuring Point Elevation. Each of these measurements is submitted as a separate record in the EDD. All three of these parameters are submitted with ANALYSIS_LAB = "FT", RESULT_TYPE_CODE = "PM", and TEST = "WL". Measuring Point Elevation and Water Level Elevation are measurements relative to a datum, and thus are reported in parameter units of elevation datum, such as "MSL FT" (Mean Sea Level Feet). Water Level Depth and Water Level Height are reported as a distance relative to a measuring point and have PARAMETER_UNITS that reflect this, such as "FMP" (Feet Below Measuring Point) or FTAMP (Feet Above Measuring Point). Measuring Point Elevation, recorded in the SAMPLE_COLLECTION_METHOD field, has a value of "HS" (High Accuracy Survey) or "LS" (Low Accuracy Survey) for groundwater and "SG" (Staff Gauge) for surface water if the gauge elevation was surveyed. For groundwater, Water Level Depth and Water Level Elevation have a value of "WL" (Water Level Meter) in the SAMPLE_COLLECTION_METHOD field. For surface water, Water Level Height and Water Level Elevation have a sample collection method of "SG" (Staff Gauge).

Please do not use a record of zero water level depth/height to indicate a dry well or stream. Instead, please follow the protocol for 'no sample taken' in Section 4.4.1.

3.1.12 Flow Data

Flow data for wells or surface water bodies can be submitted in the PARAMETER_NAME field as "Flow", "Discharge", or "Velocity" depending on the data collected. In the ANALYSIS_LAB field, list all flow measurements as "FT" (Field Test). In the RESULT_TYPE_CODE field, list as "PM" (Physical Measurement). The SAMPLE_TYPE field will list the relevant water type,

e.g. “GW” (Groundwater) or “SW” (Surface Water). The TEST is “FL” (Flow Measurement). The SAMPLE_COLLECTION_METHOD field is commonly filled as “FM” (Flow Meter).

3.1.13 Sample Date and Other Date/Time Fields

The SAMPLE_DATE field is required for all results, including samples that originate in the laboratory (and therefore don’t have a sample collection date). For Lab QC samples that do not have a field sample collection date, please set the SAMPLE_DATE field equal to the PREP_DATE, if present. If there is no Prep Date, set the Sample Date equal to the Analysis Date. Alternatively, the Sample Date can be set equal to the Sample Date of the normal samples collected in the field. For all Lab QC results, please leave the SAMPLE_TIME field as null. For all data types, the SAMPLE_DATE/TIME fields must be listed at or before both the PREP_DATE/TIME and ANALYSIS_DATE/TIME fields, and the Prep Date/Time must be listed at or before the Analysis Date/Time. Additionally, all date fields must be properly formatted in the format dd/mm/yyyy. All time fields must be formatted using hh:mm in military time or standard AM/PM time.

3.1.14 Blank Rows

The EDD cannot contain any blank rows. It is unnecessary to separate different types of data in an EDD by leaving a row blank.

3.2. How to Enter QC Data in an EGAD EDD

The DEP requires that all laboratory data submittals to EGAD include the associated quality control (QC) sample results in the EDD. This will avoid a separate request for the QC results and will help avoid unnecessary QC questions from the Department, while demonstrating that proper QC measures were taken during sampling and analysis. Table 2 below breaks out, for each type of QC measure, whether the Concentration, Percent Recovery (% R), and/or Relative Percent Difference (RPD) fields are required to be filled in the EDD.

These QC results include Field Blanks, Trip Blanks, Equipment Blanks, Source Water Blanks, Field Duplicates, Lab Duplicates, Surrogates (in % recovery), Lab Control Samples (LCS) (in % recovery), Lab Control Sample Duplicates (LCSD) (in both % recovery and relative % difference) Method/Lab Blanks, Matrix Spikes (MS) (in % recovery), and Matrix Spike Duplicates (MSD) (in both % recovery and relative % difference). QC results are submitted in the same EDD worksheet with the associated laboratory data.

Table 2. QC Types/Result Types and which result fields must be filled in (Y = Yes; N = No). EDD values listed in parenthesis

QC Type	Result Type	Required?		
		Concentration	% Recovery	RPD
Normal Sample (NA)	Target (TRG)	Y	N	N
Lab/Method Blank (LB)	Target (TRG)	Y	N	N

QC Type	Result Type	Required?		
		Concentration	% Recovery	RPD
Field Blank (FB)	Target (TRG)	Y	N	N
Trip Blank (TB)	Target (TRG)	Y	N	N
Field Duplicate (D)	Target (TRG)	Y	N	Optional
Lab Duplicate (L)	Target (TRG)	Y	N	Optional
Lab Control Sample (LCS)	Spiked Compound (SC)	N	Y	N
Lab Control Sample Duplicate (LCSD)	Spiked Compound (SC)	N	Y	Y
Matrix Spike (MS)	Spiked Compound (SC)	N	Y	N
Matrix Spike Duplicate (MSD)	Spiked Compound (SC)	N	Y	Y
Equipment Blank (EB)	Target (TRG)	Y	N	N
Source Water Blank (SWB)	Target (TRG)	Y	N	N
All QC Types	Surrogate (SUR)	N	Y	N

Electronic data submitted to the DEP must meet the data requirements set forth in the Maine laboratory certification rules (<https://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml>) and/or the relevant Quality Assurance Project Plan (QAPP) or Sampling Analysis Plan (SAP).

3.2.1. General Considerations

For all QC data, unless otherwise indicated below, the REPORTING_LIMIT field must be filled along with the PARAMETER_UNIT field as the appropriate unit for the given parameter.

3.2.2. Field Duplicates

- The SAMPLE_POINT_NAME is the DEP Sample Point Name of the location the sample was collected. If the sample was submitted blind, the lab can report the Sample ID from the COC. Consultants submitting data to DEP must fill in the SAMPLE_POINT_NAME field with the appropriate location name, as opposed to “QC” or a similar designation.
- The SAMPLE_ID is an ID of the sampler’s choosing. “Field duplicate” can be written here or whatever was entered on the COC.

- SAMPLE_DATE and SAMPLE_TIME are equal to the date/time that they were collected in the field.
- The “SAMPLE TYPE” is the matrix of the original sample, e.g. GW (Groundwater), SW (Surface Water), SL (Soil), etc.
- The “QC_TYPE” is “D”.
- The “CONCENTRATION” is the analytical result, not the RPD.
 - a. If RPD number is known, it can go in the corresponding RPD field.
- The “RESULT TYPE CODE” is “TRG” for Target or “PM” for Physical Measurement for field parameters (e.g. DO, Flow).
- If known, the SAMPLE_COLLECTION_METHOD and SAMPLE_LOCATION values are filled in with the appropriate lookup values.

3.2.3. Lab Duplicates

- The “SAMPLE POINT NAME” is the DEP Sample Point Name of the original sample. Please do not use “QC” or a similar designation.
 - If the Lab Duplicate was run on a non-project sample, do not include the data in the EDD.
- The SAMPLE_ID is an ID of the sampler’s choosing. “Lab Duplicate” can be written here, it can be left blank, or can include whatever was entered on the COC for the original sample.
- The SAMPLE_TYPE is the matrix of the original sample, e.g. GW, SW, SL, etc.
- SAMPLE_DATE and SAMPLE_TIME are equal to the date/time that the original sample was collected in the field.
- The QC_TYPE is “L”.
- The “CONCENTRATION” is the analytical result, not the RPD.
 - If RPD number is known, it can go in the corresponding RPD field.
- The “RESULT TYPE CODE” is “TRG” for target.
- If known, the SAMPLE_COLLECTION_METHOD and SAMPLE_LOCATION fields are filled in with the appropriate lookup values.

3.2.4. Trip Blank

- The SAMPLE_POINT_NAME for trip blanks is “QC”.
- The SAMPLE_ID can be an ID of the sampler’s or lab’s choosing. “Trip Blank” can be written here or whatever was entered on the COC. If applicable, “Methanol Trip Blank” can be written here, or it can be used to indicate other special circumstances.
- The SAMPLE_TYPE is “AQ” (Aqueous), “SLD” (Solid), “A” (Air), “TS” (Tissue), or “FP” (Free Product).

- The QC_TYPE is “TB”.
- The RESULT_TYPE_CODE is “TRG” for Target.

3.2.5. Field Blank

- The SAMPLE_POINT_NAME for field blanks is “QC”. If the sample is submitted blind, the lab can report the Sample ID from the COC. Consultants submitting data to DEP must fill in the appropriate SAMPLE_POINT_NAME
- The SAMPLE_ID can be an ID of the sampler’s choosing. “Field blank” can be written here or whatever was entered on the COC.
- The SAMPLE_TYPE is “AQ” (Aqueous), “SLD” (Solid), “A” (Air), “TS” (Tissue), or “FP” (Free Product).
- The QC_TYPE is “FB”.
- The RESULT_TYPE_CODE is “TRG” for Target.

3.2.6. Lab Blank (LB)/Method Blank (MB)

- The SAMPLE_POINT_NAME is “QC”.
- The SAMPLE_ID can be an ID of the lab’s choosing and can indicate lab/method blank.
- The SAMPLE_TYPE is “AQ” (Aqueous), “SLD” (Solid), “A” (Air), “TS” (Tissue), “WP” (Wipe), or “FP” (Free Product).
- The QC_TYPE is “LB”.
- The RESULT_TYPE_CODE is “TRG” for Target

3.2.7. Equipment Blank (EB)

- The SAMPLE_POINT_NAME is “QC”.
- The SAMPLE_ID can be an ID of the lab’s choosing and can indicate equipment blank.
- The SAMPLE_TYPE is “AQ” (Aqueous), “SLD” (Solid), “A” (Air), “TS” (Tissue), “WP” (Wipe), or “FP” (Free Product).
- The QC_TYPE is “EB”.
- The RESULT_TYPE_CODE is “TRG” for Target.
- The SAMPLE_COMMENT can indicate from which sample point name(s) the equipment blanks were taken from.

3.2.8. Lab Control Sample (LCS)

- Include only the % recovery of the LCS sample in the EDD, not the measured value.
- The SAMPLE_POINT_NAME is “QC”.

- The SAMPLE_ID can be an ID of the lab's choosing and can indicate LCS.
- The SAMPLE_TYPE is "AQ" (Aqueous), "SLD" (Solid), "A" (Air), "TS" (Tissue), "WP" (Wipe), or "FP" (Free Product).
- The QC_TYPE is "LCS".
- The %_RECOVERY is the percent recovery of the LCS parameter.
- The following fields are left blank: REPORTING_LIMIT, MDL, CONCENTRATION, PARAMETER_UNIT.
- The RESULT_TYPE_CODE is "SC" for Spiked Compound.

3.2.9. Lab Control Sample Duplicate (LCSD)

- Include only the % recovery and RPD of the LCSD sample, not the measured value.
- The SAMPLE_POINT_NAME is "QC".
- The SAMPLE_ID can be an ID of the lab's choosing and can indicate LCSD.
- The SAMPLE_TYPE is "AQ" (Aqueous), "SLD" (Solid), "A" (Air), "TS" (Tissue), "WP" (Wipe), or "FP" (Free Product).
- The QC_TYPE is "LCSD".
- The %_RECOVERY is the percent recovery of the LCSD parameter.
- The RPD is the relative percent difference of the LCSD parameter.
- The following fields are left blank: REPORTING_LIMIT, MDL, CONCENTRATION, PARAMETER_UNIT.
- The RESULT_TYPE_CODE is "SC" for Spiked Compound.

3.2.10. Matrix Spike (MS)

- Include only the % recovery of the MS sample in the EDD, not the measured value.
- The SAMPLE_POINT_NAME is the DEP Sample Point Name of the original sample.
 - If the MS was run on a non-project sample, do not include the data in the EDD.
- The SAMPLE_ID can be an ID of the lab's choosing and can indicate MS.
- The SAMPLE_TYPE is the matrix of the original sample, e.g. GW, SW, SL, etc.
- The QC_TYPE is "MS".
- The %_RECOVERY is the percent recovery of the MS parameter.
- The following fields are left blank: REPORTING_LIMIT, MDL, CONCENTRATION, PARAMETER_UNIT.
- The RESULT_TYPE_CODE is "SC" for spiked compound.

- If known, the SAMPLE_COLLECTION_METHOD and SAMPLE_LOCATION fields are filled in with the appropriate lookup values.

3.2.11. Matrix Spike Duplicate (MSD)

- There are two results included in the EDD for MSD samples - the % recovery and the RPD. Please do not include the measured value.
- The SAMPLE_POINT_NAME is the DEP Sample Point Name of the original sample.
 - If the MS was run on a non-project sample, do not include the data in the EDD.
- The SAMPLE_ID can be an ID of the lab's choosing and can indicate MSD.
- The SAMPLE_TYPE is the matrix of the original sample, e.g. GW, SW, SL, etc.
- The QC_TYPE is "MSD".
- The %_RECOVERY is the percent recovery of the MSD parameter.
- The RPD is the relative percent difference of the MSD parameter.
- The following fields are left blank: REPORTING_LIMIT, MDL, CONCENTRATION, PARAMETER_UNIT.
- The RESULT_TYPE_CODE is "SC" for spiked compound.
- If known, the SAMPLE_COLLECTION_METHOD and SAMPLE_LOCATION fields are filled in with the appropriate lookup values.

3.2.12. Surrogates

- The SAMPLE_POINT_NAME is the DEP Sample Point Name of the original sample. If the surrogate parameter is spiked into a QC sample, then SAMPLE_POINT_NAME is "QC".
- The SAMPLE_ID is the ID of the original sample, whether it was a normal or QC sample.
- The SAMPLE_TYPE is the matrix of the original sample, e.g. GW, SW, SL, AQ, SLD, etc.
- The QC_TYPE is the code of the original spiked sample, e.g. "NA" for non-QC samples and "LCS", "L" etc. if the surrogate parameter is in a QC sample.
- The %_RECOVERY is the percent recovery of the surrogate parameter.
- The following fields are left blank: REPORTING_LIMIT, MDL, PARAMETER_UNIT.
- The RESULT_TYPE_CODE is "SUR" for surrogate.

3.3. How to Enter Validated Data

Data submitted to DEP may be validated according to DEP, QAPP, or other external standards. This validation must be reported in the EDD using the following fields:

- VALIDATION_QUALIFIER: used to enter concentration qualifiers by a data reviewer other than the analytical laboratory.

- **VALIDATION_LEVEL**: indicates that data has been validated, and at what level. All data validation must be a DEP pre-approved and acceptable validation procedure. Please refer to [APPENDIX 3](#) for the list of current validation level lookup values. At a minimum, the fields **VALIDATION_QUALIFIER** and **VALIDATION_LEVEL** must be filled out for all data validation results being reported.
- **VALIDATION_COMMENT**: used to explain the reason of the validation qualifier (e.g. low LCS recovery).
- **VALIDATION_COMMENT_TYPE**: indicates who made the comment and must be populated if the **VALIDATION_COMMENT** field is populated. Please refer to [APPENDIX 3](#) for the list of current Validation Comment Type lookup values.
- **VALIDATION_SQL** field is used to enter a new Reporting Limit if the validator changes the Reporting Limit as part of the data validation.

When a record in an EDD has been validated, all “J”, “U”, and “UJ” values in the **LAB_QUALIFIER** field must be copied into the **VALIDATION_QUALIFIER** field if unchanged by the data validator (indicating the validator agrees with the **LAB_QUALIFIER**). Otherwise, the data validator may instead use a different Validation Qualifier than was given in the **LAB_QUALIFIER** field. For example, if the Validation Qualifier is “U” and the Lab Qualifier is “J”, the concentration is deleted from the **CONCENTRATION** field. Lab QC data is used to validate the normal sample data, although validating the QC data itself is optional. If only normal sample data is validated, then a **VALIDATION_LEVEL** only needs to be filled in for the normal sample data.

3.4. Special Considerations

3.4.1. Non-Sample Data/No Sample Taken

Non-sample data applies to sample events where the sample(s) or physical measurement(s) are attempted to be collected or taken but are not for a variety of reasons including the presence of Free Product, a Discontinued, Dry, or Frozen Well, Broken Glassware, or an Instrument Malfunction. This type of information can be captured and reported using the EDD. For non-sample data the following fields are required: **PROJECT/SITE**, **SAMPLE_POINT_NAME**, **ANALYSIS_LAB**, **SAMPLE_DATE**, **SAMPLE_TYPE**, **QC_TYPE**, **SAMPLE_TYPE_QUALIFIER**, and **SAMPLE_COLLECTION_METHOD**. The **ANALYSIS_LAB** field is populated with “NA” for “Not Applicable”, **SAMPLE_TYPE_QUALIFIER** field is populated with the appropriate qualifier to describe why the sample was not taken, and **SAMPLE_COLLECTION_METHOD** field is populated with “NS” for “No Sample Taken”. All other fields listed above are populated following the normal EDD guidelines.

3.4.2. Sample Taken but Not Analyzed

A sample taken but not analyzed applies to when a sample is collected in the field, but not analyzed in the laboratory, such as when the sample was lost or because of an instrument

malfunction. A "lost" sample can also result in partial analysis. This type of information can be captured and reported using the EDD. For each parameter that could not be analyzed, the LAB_QUALIFIER field is populated with "NAN" for "Not Analyzed" and the LAB_COMMENT field is populated with a comment indicating why the sample was not analyzed. The fields CONCENTRATION, REPORTING_LIMIT, IDL, MDL, VALIDATION_QUALIFIER, VALIDATION_SQL and VALIDATION_LEVEL are left null. For Analysis Date, use the date on which the analysis was attempted. All other fields are filled out the same way as any other sample that was analyzed at a laboratory or in the field, whichever is applicable.

3.4.3. Sample Point Name Changes

In cases where a Sample Point Name is identified by a property owner name (e.g. Smith well), please indicate any name changes due to property transfer in the deliverable package. All former Sample Point Names are stored in EGAD.

3.4.4. Non-Quantitative Results

Data indicating the presence or absence of certain parameters (e.g. oil screen, paint filter, certain bacteria) will be formatted similarly to quantitative results. However, there are a few important differences. The CONCENTRATION and REPORTING_LIMIT fields must be denoted as null, and with PARAMETER_UNITS of "NA". The LAB_QUALIFIER field must indicate the result of each parameter (e.g. "PO" for "Positive"; "SP" for "Slightly Positive"; "U" for Absence - a full list of options can be found in the CONCENTRATION_QUALIFIER lookup table in [APPENDIX 3](#)).

3.4.5. Standard Test Methods

When submitting laboratory results that were obtained using any of the Standard Methods, please specify, in the TEST field, the year of the Standard Method's approval or adoption in the last four digits of the method number (e.g. "SM311B_2004"). Certain bacteria methods must also specify the agar or equipment that was used (e.g. "SM9215B(PCA)_2011"). This change is in accordance with [Title 40 CFR Part 136](#) regarding Standard Methods, which specify proper data documentation for meeting EPA's recommendations on naming structure. Starting in July 2020, DEP will no longer accept any standard methods that don't reflect the latest revision year. Please refer to the TEST_LUP worksheet in [APPENDIX 3](#) for a list of the latest standard methods.

3.4.6. Wipe Samples

Effective March 2019, Maine DEP will no longer accept data that is submitted in "per wipe" units (e.g.: micrograms per wipe or "UG/WIPE"). Instead, all results for wipe samples must report the area of the surface wiped in the PARAMETER_UNITS field (e.g. micrograms per square foot or "UG/SQ FT"; micrograms per square centimeter or "UG/SQ CM").

3.4.7. Neat and Free-Product Samples

For samples taken directly from the contamination source, such as a petroleum product, the Sample Type should be labeled as "Neat" (SAMPLE_TYPE = "N") if the sample was taken

directly from an unimpacted source such as a heating oil tank. If the sample was taken from an impacted area, such as in a groundwater table, the Sample Type should be labeled as “Free Product” (SAMPLE_TYPE = “FP”). For either scenario, any corresponding laboratory QA/QC should be labeled as Free Product.

3.4.8. Nutrient Parameter Names

EGAD now requires that the portion/component of the chemical measured in a sample be identified in the PARAMETER_NAME field, otherwise known as “method speciation” or “result speciation”. This follows EPA’s June 2017 guidance on best practices for submitting nutrient results (https://www.epa.gov/sites/production/files/2017-06/documents/wqx_nutrient_best_practices_guide.pdf) for all normal and laboratory QC samples. For example, the names “Total Phosphorus as P” or “Total Phosphorus as PO4” are acceptable, but just “Total Phosphorus” is not because it does not specify how the phosphorus result is being reported.

4. SUBMITTAL OF THE EDD

4.1.1. Format

After the data has been entered into the ME DEP EDD template it must be saved as an Excel worksheet or exported as a tab delimited text file. Please note that if a field is not required for the type of data being submitted, the columns which contain those fields may be deleted from the EDD before submission. Additionally, columns may be rearranged in any order, if desired.

All types of data can be submitted together in the same EDD. Laboratory QC data is submitted together with normal environmental samples. Please do not submit EDDs as multiple tabs within one workbook. If more than one EDD is being submitted, submit each as a separate file. Before submitting the EDD, please make sure that the cells in each sheet contain values rather than Excel formulas.

4.1.2. Identifying

Each EDD submission is identified by site/project name and sampling date, or site/project name and submission date if data for multiple sampling events is being submitted. Data for more than one site or project should not be combined into one EDD file for submission to ME DEP.

4.1.3. Sending to Maine DEP

In most circumstances, EDDs should be submitted by e-mail and sent to dep.edd@maine.gov and cc the DEP Project Manager or technical staff. Otherwise, EDDs can also be accepted by CD, DVD, or by mail. EDDs submitted by mail should be sent to either of the addresses listed in Section 6 below. Tab and comma delimited text files are accepted, as are most Excel files, so long as the Excel files are from Excel 1997 or later.

4.1.4. Resubmitting

EDDs that are being resubmitted after modifications should be identified as resubmittals in the file name and/or the e-mail or mail deliverable package.

5. CONTACTING EGAD DATA MANAGERS

For questions, concerns, and comments regarding Maine DEP EDD submittals please contact:

**Bureau of Remediation &
Waste Management (BRWM)**

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