

EIM Help – Entering Sediment and Pore Water Data

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Background

What is sediment? Washington's 2013 Sediment Management Standards (WAC 173-204-200) define sediment as the "...settled particulate matter located in the predominant biologically active aquatic zone, or exposed to the water column. Sediment(s) also includes settled particulate matter exposed by human activity (e.g., dredging) to the biologically active aquatic zone or to the water column." Sediment pore water, sometimes referred to as interstitial water, is the water occupying the spaces between the sediment grains.

How is sediment data collected? Sediment samples are collected using a variety of methods designed to analyze and characterize different aspects of the surface and subsurface environment. Sediment data can be collected as surficial samples (e.g. grab or dredge) or core samples. Sediment pore water can also be sampled for contaminants via ex-situ or in-situ methods. Key fields in EIM are used to differentiate between different types of sediment samples, as outlined below.

Use this document for entering settled particulate matter and pore water sediment data.

Suspended particulate matter sediment data is entered differently. See our [EIM Data Entry Help Documents page](#) for information on how to enter suspended particulate matter sediment data. Also use this document as a supplement to the Results Submittal Template Help document in the [Submittal Guidelines zip file](#), which contains all the requirements for submitting result data to EIM.

How to Enter Your Sediment Samples

Enter the following fields in addition to the general requirements in the Results Submittal Template Help document:

- **Field Collection Reference Point (Column M):** Always use "Sediment Surface."
- **Field Collection Upper Depth (Column N):** Distance from the Sediment Surface to the upper boundary where the sediment sample was collected. Normally "0" for surficial samples, entered as a positive number if below the surface.
- **Field Collection Lower Depth (Column O):** Distance from the Sediment Surface to the lower boundary where the sediment sample was collected. Value depends on the depth of the surficial sample or core. Entered as a positive number.
- **Field Collection Depth Units (Column P):** **cm** centimeters, **m** meters, **in** inches, or **ft** feet
- **Sample Matrix (Column X):** Always use "Solid/Sediment"
- **Sample Source (Column Y):** Valid values are: Salt/Marine Sediment, Brackish Sediment, Freshwater Sediment, Salt/Marine Porewater, Brackish Porewater, or Freshwater Porewater. The following definitions are from the 2013 Sediment Management Standards:
 - **Marine** sediments are surface sediments in which the sediment pore water contains 25 parts per thousand (‰) salinity or greater.
 - **Brackish** (low salinity sediments) are surface sediments in which the sediment pore water contains greater than 0.5‰ salinity and less than 25‰.

- **Freshwater** sediments are surface sediments in which the sediment pore water contains less than or equal to 0.5‰ salinity.
- **Sample Collection Method (Column AA):** See tables at the end of this document for a list of common sediment sample collection methods.
- **Fraction Analyzed (Column AT):** Do not populate this field for MOST sediment or pore water samples. If your lab applied a TCLP/SPLP extraction procedure to the sediments prior to analysis, use “Lab Leachate.”
- **Result Basis (Column AV):** Physical state in which the analyte concentration was reported - either as the sample was received by the lab (wet weight) or adjusted to remove moisture (dry weight). For sediments this is usually DRY, but it’s sometimes WET. Check with your lab if you are unsure. Leave this field blank for sediment pore water.

Data Entry Examples

Surficial Sediment Samples

Field Collection Reference Point (M)	Field Collection Upper Depth (N)	Field Collection Lower Depth (O)	Field Collection Depth Units (P)	Sample Matrix (X)	Sample Source (Y)	Sample Collection Method (AA)	Result Basis (AV)
Sediment Surface	0	10	cm	Solid/Sediment	Salt/Marine Sediment	VANVEEN.10	WET or DRY

Sediment Core Samples

Example of how to enter two depth intervals within a sediment core:

Field Collection Reference Point (M)	Field Collection Upper Depth (N)	Field Collection Lower Depth (O)	Field Collection Depth Units (P)	Sample Matrix (X)	Sample Source (Y)	Sample Collection Method (AA)	Result Basis (AV)
Sediment Surface	0	2	ft	Solid/Sediment	Salt/Marine Sediment	CORE-VIBRA	WET or DRY
Sediment Surface	2	4	ft	Solid/Sediment	Salt/Marine Sediment	CORE-VIBRA	WET or DRY

Sediment Pore Water Samples

The Result Basis for pore water samples should be left blank. Your Result Value Units (Column AN) should express a mass/volume (e.g. ug/L).

Field Collection Reference Point (M)	Field Collection Upper Depth (N)	Field Collection Lower Depth (O)	Field Collection Depth Units (P)	Sample Matrix (X)	Sample Source (Y)	Sample Collection Method (AA)	Result Basis (AV)
Sediment Surface	0	10	cm	Solid/Sediment	Salt/Marine Porewater	VANVEEN.10	

Common Sediment Sample Collection Methods

See the online [EIM Method Reference Table](#) for complete list of sample collection methods. **Tip** - search under the Collection category. If you don't find what you are looking for, contact your EIM Data Coordinator. We can always add a collection method for you.

Surficial Sediment Examples

Method Code	Method Description
VANVEEN.10	Grab sampler, Van Veen, 0.10 m2
VANVEEN	Grab sampler, Van Veen, size unspecified
HANDPICK	Hand, picked by
SCOOP-SS	Scoop or spoon, stainless steel
GRAB-MISC	Grab sampler, type unspecified
PONAR-STD	Grab sampler, Ponar, standard
PONAR-PET	Grab sampler, Ponar, petite

Sediment Core Examples

Method Code	Method Description
CORE-VIB4	Corer, Vibra-, 4 in diameter by 12 ft length
CORE-IMPCT	Corer, impact
CORE-VIBRA	Corer, Vibra-, size unspecified
CORE-GRVTY	Corer, piston or gravity

Revision History

Revision Date	Revision No.	Summary of Changes	Reviser(s)
1/15/07	1.0	Original Document	B E-M
11/15/09	1.1	Updated with new field names and column designations	TR
2/15/10	2.0	Added cores and porewater to the original sediment document. Added new pore water Sample Sources. Draft was never posted due to ongoing Sample Matrix discussions.	CL
11/25/13	2.1	Updated with new field names and valid values per data model changes. Added requirement to enter Sample Matrix as Solid/Sediment.	CL, AO, KK, HF
3/11/14	3.0	Reformatted to be more like other EIM data entry help documents – to be used in conjunction with spreadsheet help documents instead of stand-alone. Also added definition of sediment since it was an issue. Document was internal-only – now posted for everyone.	HF, KC, AO, CN,CL