Department of Ecology EIM Environmental Information Management

EIM Help – Sample Fraction

Version 1.3
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Sample Fraction indicates whether an aqueous sample was filtered or how a solid sample was treated prior to analysis. If an aqueous sample was filtered, it indicates what portion was analyzed. If an aqueous sample was not filtered or if the sample was solid, it indicates the degree of digestion performed prior to analysis.

EIM has several Sample Fraction choices:

- **DISSOLVED** – **Filtered** - Analysis performed on the soluble portion of an aqueous sample that has been filtered in the field or lab.
- **SUSPENDED** – **Filtered or centrifuged** - Analysis performed on solids retained from an aqueous sample after filtering or centrifuging.
- **TOTAL** – **Not filtered or solids** - Analysis performed on an unfiltered aqueous sample - OR for metals, solids are digested with acid to leach analyte.
- **TOTAL RECOVERABLE** – **Not filtered or solids** - For metals, similar to TOTAL, but uses a less rigorous digestion technique on solids. Thought to best represent bioavailable metals.
- **HF TOTAL** – **Not filtered or solids** - For metals, similar to TOTAL, but uses very strong hydrofluoric acid to completely digest solids.
- **LEACHATE** – **Filtered** – The preparation for TCLP or other, similar analyses.

EIM requires a Result Sample Fraction (column BD) for (see full list on Page 2):

- Metals
- Nitrogen
- Phosphorus
- Water samples that are field or lab filtered prior to analysis:
    - Enter Result Sample Fraction as DISSOLVED. (EIM does not currently have a separate field to indicate field filtering).
    - The filter size should be reported in **one** of the Sample Method Code columns (AB-AE). The most common is FILTER.45M (Water sample field filtered at time of collection - 0.45 micron filter), but if you need a different filter size added, contact the EIM Data Coordinator.

Example:

Sample_Matrix (W)	Sample_Method_Code (AB, AC, AD, or AE)	Result_Parameter_Name (AR)	Result_Sample Fraction (BD)
Water	FILTER.45M	Arsenic	Dissolved
Water	FILTER.45M	Copper	Dissolved

A note about organics:

Organics are usually not reported with a Result Sample Fraction because it is assumed that the entire sample was analyzed via the extraction process (i.e., implied Sample Fraction of TOTAL).

Special case - Semi-Permeable Membrane Device (SPMD):

Enter Result Sample Fraction as DISSOLVED. Samples collected in this manner are an estimate of the dissolved fraction.

Current EIM parameters requiring Sample Fraction:

Parameter Name	CAS No.	Paramter Name	CAS No.
Aluminum	7429-90-5	Mercury	7439-97-6
Antimony	7440-36-0	Molybdenum	7439-98-7
Arsenic	7440-38-2	Neodymium	7440-00-8
Arsenic III	22541-54-4	Nickel	7440-02-0
Arsenic V	17428-41-0	Nitrogen	7727-37-9
Barium	7440-39-3	Nitrogen compounds, inorganic	n/a
Beryllium	7440-41-7	Organic Nitrogen	n/a
Bismuth	7440-69-9	Ortho-Phosphate	n/a
Boron	7440-42-8	Phosphate	14265-44-2
Cadmium	7440-43-9	Phosphorus	7723-14-0
Calcium	7440-70-2	Potassium	7440-09-7
Cesium	7440-46-2	Scandium	7440-20-2
Chromium	7440-47-3	Selenium	7782-49-2
Chromium, Hexavalent	18540-29-9	Silicon	7440-21-3
Chromium, Trivalent	16065-83-1	Silver	7440-22-4
Cobalt	7440-48-4	Sodium	7440-23-5
Copper	7440-50-8	Strontium	7440-24-6
Europium	7440-53-1	Thallium	7440-28-0
Gallium	7440-55-3	Thorium-232	7440-29-1
Germanium	7440-56-4	Tin	7440-31-5
Indium	7440-74-6	Titanium	7440-32-6
Iron	7439-89-6	Total Kjeldahl Nitrogen	n/a
Iron, Ferric, Fe+3	20074-52-6	Total Persulfate Nitrogen	n/a
Iron, Ferrous, Fe+2	15438-31-0	Total Persulfate Phosphorus	n/a
Lanthanum	7439-91-0	Total Phosphorus	n/a
Lead	7439-92-1	Vanadium	7440-62-2
Lithium	7439-93-2	Ytterbium	7440-64-4
Magnesium	7439-95-4	Yttrium	7440-65-5
Manganese	7439-96-5	Zinc	7440-66-6