# Data Dictionary for Grain Size Data Tables

The table below describes the attributes (data columns) for the grain size data tables presented in this report. The metadata for the grain size data are not complete if they are not distributed with this document. If a field is missing from a data file, then it is not applicable to that data file.

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| ****Attribute\_Label**** | ****Attribute\_Definition**** |
| Sample\_ID | Sample IDs listed within the table used the naming convention FAN-GBXYY-TZZZ, FAN-GBXYYS, or FAN-GBXYYZ-S where FAN represents the USGS abbreviated field activity number, GB denotes samples are from Grand Bay, X is the site number, YY is the NST plot distance from the shoreline (shoreline represented as “00 m”, 5 m as "01", 10 m as "02", 15 m as "03", 20 m as "04", and 25 m as "05"), T denotes the sample collected was from a net sedimentation tile (NST), ZZZ is the NST number, Z is the estuary site designation (S represents the shallow site and D represents the deep site). Samples ending in “S” or “-S” are surface grab samples that were collected adjacent to the NST plot. |
| Site | NST site number (5, 6, 7, 8, 9) or estuary site number (8S, 8D, 9S, 9D). |
| Distance | Distance inland to the NST plot from the shoreline (in meters). |
| NST\_number | Net sedimentation tile number. Field is only present in NST files. |
| NST\_type | Codes used to identify the type of NST that was deployed. “U” represents unglazed, and “G” represents glazed NST. Field is only present in NST data files. |
| Alt\_FAN | Alternate (abbreviated) FAN assigned each collection trip. Alternate FANs were assigned by the USGS and are YYCCTXX, where YY is the 2-digit year, CCT stands for coastal change and transport (a USGS project identifier), and XX is the trip number. |
| FAN | USGS field activity number (FAN) assigned to each sample collection trip. Field activity numbers were assigned by the USGS to track field collection of samples. The FAN consists of YYYY-XXX-FA, with YYYY being the 4-digit year, XXX being the trip number, and FA representing that it is a field activity. |
| Sediment\_Texture | Physical description of sediment textural group - describes the dominant grain size class of the sample (after Folk, 1954): Sand, Clayey Sand, Muddy Sand, Silty Sand, Sandy Clay, Sandy Mud, Sandy Silt, Clay, Mud, or Silt. |
| Average\_Sample\_Runs | Number of sample runs (N) included in the averaged statistics or other relevant information. |
| Mean\_Grain\_Size\_µm | Mean grain size, in microns (after Folk and Ward, 1957). |
| Mean\_Grain\_Size\_Std\_Dev\_µm | Standard deviation of mean grain size, in microns. |
| Sorting\_µm | Sample sorting - the standard deviation of the grain size distribution, in microns (after Folk and Ward, 1957). |
| Sorting\_Std\_Dev\_µm | Standard deviation of sorting, in microns. |
| Skewnew\_µm | Sample skewness - deviation of the grain size distribution from symmetrical, in microns (after Folk and Ward, 1957). |
| Skewnew\_Std\_Dev\_µm | Standard deviation of skewness, in microns. |
| Kurtosis\_µm | Sample kurtosis - degree of curvature near the mode of the grain size distribution, in microns (after Folk and Ward, 1957). |
| Kurtosis\_Std\_Dev\_µm | Standard deviation of kurtosis, in microns. |
| Mean\_Grain\_Size\_phi | Mean grain size, in phi units (after Folk and Ward, 1957). |
| Mean\_Grain\_Size\_Std\_Dev\_phi | Standard deviation of mean grain size, in phi units. |
| Sorting\_phi | Sample sorting - the standard deviation of the grain size distribution, quantifying the degree of uniformity of the grain size, in phi units (after Folk and Ward, 1957). |
| Sorting\_Std\_Dev\_phi | Standard deviation of sorting, in phi units. |
| Skewnew\_phi | Sample skewness - deviation of the grain size distribution from symmetrical, in phi units (after Folk and Ward, 1957). |
| Skew\_Std\_Dev\_phi | Standard deviation of skewness, in phi units. |
| Kurtosis\_phi | Sample kurtosis - degree of curvature near the mode of the grain size distribution, in phi units (after Folk and Ward, 1957). |
| Kurtosis\_Std\_Dev\_phi | Standard deviation of kurtosis, in phi units. |
| Mean\_Grain\_Size\_Descriptive | Physical description of mean grain size (after Folk and Ward, 1957):  Clay, Very Fine Silt, Fine Silt, Medium Silt, Coarse Silt, Very Coarse Silt, Very Fine Sand, Fine Sand, Medium Sand, Coarse Sand, or Very Coarse Sand |
| Sorting\_Descriptive | Physical description of sample sorting (after Folk and Ward, 1957):  Very Well Sorted, Well Sorted, Moderately Well Sorted, Moderately Sorted, Poorly Sorted, Very Poorly Sorted, or Extremely Poorly Sorted |
| Skewnew\_Descriptive | Physical description of sample skewness (after Folk and Ward, 1957):  Very Fine Skewed, Fine Skewed, Symmetrical, Coarse Skewed, or Very Coarse Skewed |
| Kurtosis\_Descriptive | Physical description of sample kurtosis (after Folk and Ward, 1957):  Very Platykurtic, Platykurtic, Mesokurtic, Leptokurtic, Very Leptokurtic, or Extremely Leptokurtic |
| D10\_µm | Particle diameter representing the 10% cumulative percentile value (10% of the particles in the sediment sample are finer than the D10 grain size), in microns. |
| D10\_Std\_Dev\_µm | Standard deviation of D10, in microns. |
| D50\_µm | Particle diameter representing the 50% cumulative percentile value (50% of the particles in the sediment sample are finer than the D50 grain size), in microns. |
| D50\_Std\_Dev\_µm | Standard deviation of D50, in microns. |
| D90\_µm | Particle diameter representing the 90% cumulative percentile value (90% of the particles in the sediment sample are finer than the D90 grain size), in microns. |
| D90\_Std\_Dev\_µm | Standard deviation of D90, in microns. |
| Sand\_% | Total sand fraction of the sediment sample, in percent. |
| Sand\_Std\_Dev\_% | Standard deviation of the sand fraction, in percent. |
| Mud\_% | Total mud (silt and clay) fraction of the sediment sample, in percent. |
| Mud\_Std\_Dev\_% | Standard deviation of the mud fraction, in percent. |
| Very\_Coarse\_Sand\_% | Fraction of the sediment sample that is very coarse sand (1 to 2-millimeter diameter, or -1 to 0 phi), in percent. |
| Coarse\_Sand\_% | Fraction of the sediment sample that is coarse sand (500-microns to 1-millimeter diameter, or 0 to 1 phi), in percent. |
| Medium\_Sand\_% | Fraction of the sediment sample that is medium sand (250 to 500-micron diameter, or 1 to 2 phi), in percent. |
| Fine\_Sand\_% | Fraction of the sediment sample that is fine sand (125 to 250-micron diameter, or 2 to 3 phi), in percent. |
| Very\_Fine\_Sand\_% | Fraction of the sediment sample that is very fine sand (63 to 125-micron diameter, or 3 to 4 phi), in percent. |
| Very\_Coarse\_Silt\_% | Fraction of the sediment sample that is very coarse silt (31 to 63-micron diameter, or 4 to 5 phi), in percent. |
| Coarse\_Silt\_% | Fraction of the sediment sample that is coarse silt (16 to 31-micron diameter, or 5 to 6 phi), in percent. |
| Medium\_Silt\_% | Fraction of the sediment sample that is medium silt (8 to 16-micron diameter, or 6 to 7 phi), in percent. |
| Fine\_Silt\_% | Fraction of the sediment sample that is fine silt (4 to 8-micron diameter, or 7 to 8 phi), in percent. |
| Very\_Fine\_Silt\_% | Fraction of the sediment sample that is very fine silt (2 to 4-micron diameter, or 8 to 9 phi), in percent. |
| Clay\_% | Fraction of the sediment sample that is clay (diameter less than 2 microns, or phi greater than 9), in percent. |
| QC | Quality Control error codes.  “0” = Data meets all QA/QC requirements  “C” = Minor deficiencies meeting QC requirements, but the overall data quality is judged to be reliable  “R” = Rejected, data fails QA/QC requirements. Data should not be used and is only being published as part of publishing data integrity requirements |
| RERUN | If “FALSE” the sample is the original sample analysis. If “TRUE” the sample is a replicate of a sample previously analyzed. Samples were reanalyzed if there was additional sediment or if the original sample failed the QA/QC check. |

Folk, R.L., 1954, The distinction between grain size and mineral composition in sedimentary rock nomenclature: Journal of Geology, v. 62, no. 4, p. 344-359, https://doi.org/10.1086/626171.

Folk, R.L., and Ward, W.C., 1957, Brazos River bar [Texas]—A study in the significance of grain size parameters: Journal of Sedimentary Petrology, v. 27, no. 1, p. 3–26, https://doi.org/10.1306/74D70646-2B21-11D7-8648000102C1865D.