

The TerraBase® “WC” EDD

Generic Data Formatting and Data Library Guide for Project Managers, Contractors, and Monitoring Well Construction Crews:

All EDD data must be presented as a Microsoft Excel® file within the strict limitations of the format described in the following table. However, even if the formatting of the EDD is completely correct, the Project Manager may choose to reject the EDD if the contents of that file do not comply with the data-library standardization requirements detailed within the attached Appendices and data libraries.

Additionally, for special projects and uses, a Project Manager responsible for data standardization may provide additions to the standard data libraries for the contractor’s special use within those projects. Any such additions must be provided under separate cover and do not take the place of this generic data standards document.

The TerraBase® Environmental Data Management System stores monitoring well information from separate geographic facilities in segregated regions within the database structure. For this reason, monitoring well information from separate facilities can never be combined within a single EDD file. However, data from multiple Sampling Events/Dates performed by the same contractor for the same Facility may (at the discretion of the Project Manager) be included within the same EDD file.

“WC” EDD data format description:

Excel Column	Field Description	Data Type: Length	Description
A	Sample Point	Text: 20	Georeferenced data point; the permanent identifier for the Monitoring Well. This field is required for data that is to be modeled, and is INITIALLY ASSIGNED BY THE PROJECT MANAGER . It must have consistent nomenclature with the Sample Point Id’s found in the client database or associated “SP” add file.
B	Well Installation Date	Date	Well Installation Date (format mm/dd/yyyy).
C	Well Depth*	Real	Total depth of well in feet or meters
D	Top Of Casing*	Real	Depth to top of casing in feet or meters
E	Well Screen Top Depth*	Real	Depth to top of well screen in feet or meters
F	Well Screen Bottom Depth*	Real	Depth to bottom of well screen in feet or meters
G	Well Construction Comment	Text: 255	Well construction installation comments. Do not use special characters such as “Tabs” or “Carriage Returns”.
H	Borehole Diameter*	Real	Borehole Diameter (in inches or centimeters)
I	Casing Diameter*	Real	Well casing diameter (in inches or centimeters)
J	Casing Material	Text: 3	Well casing material (see list of valid entries in Appendix)

K	Screen Material	Text: 3	Well screen material (see list of valid entries in Appendix Table 8)
L	Land Surface Elevation*	Real	Land Surface Elevation in feet or meters
M	Slotted Screen Size*	Real	Slotted Screen Size in inches or centimeters
N	Installed By	Text: 50	Installed By: Name of individual or company that installed the well.
O	Installation Method	Text: 20	Installation Method (see list of valid entries in Appendix Table 1)
P	Logged By	Text: 50	Logged By: Name of individual or company recording the well log.
Q	Rig Type	Text: 20	Drill rig or direct push type (free text field)
R	Completion Method	Text: 50	Text Field for entering user defined completion method (Ex: Protective Cover Type III Well)
S	Well Diameter*	Real	Well Diameter (in inches or centimeters)
T	Well Status	Text: 15	Well Status (see list of valid entries in Appendix Table 2)
U	Well Designation	Text: 15	Well Designation (see list of valid entries in Appendix Table 3)
V	Lithology Screened	Text: 3	Soil type in which the well screen resides (i.e., USCS code. See valid entry list in Appendix Table 4)
W	InSitu Hydraulic Cond	Text: 50	In Situ Hydraulic Conductivity – represent the reported value and units of measure in the same manner as displayed upon any associated hard copy report (Ex: “1x10-7 cm/sec.”, etc.)
X	Sampling Equipment	Text: 20	Sampling Equipment (i.e., Bailer. See list of valid entries in Appendix Table 5)
Y	Remediation Equipment	Text: 15	Remediation Equipment if applicable (see list of valid entries in Appendix Table 6)
Z	State ID Number	Text: 15	State ID Number (if applicable)
AA	Riser Stickup*	Real	Riser Stickup recorded as a positive or negative value (in feet or meters) dependent upon whether the Top-Of-Casing is above or below ground level. For example, a Top-Of-Casing that is located below ground will always have a negative value for riser stickup.
AB	Riser Length*	Real	Riser Length in feet or meters
AC	Screen Length*	Real	Screen Length in feet or meters

AD	Sump Length*	Real	Sump Length in feet or meters
AE	Riser Material	Text: 3	Riser Material (see list of valid entries in Appendix Table 7)
AF	Sump Material	Text: 3	Sump Material (see list of valid entries in Appendix Table 8)
AG	Cover Type	Text: 20	Cover Type (see list of valid entries in Appendix Table 10)
AH	Grout Material	Text: 20	Grout Material (see list of valid entries in Appendix Table 11)
AI	Well Seal Material	Text: 20	Well Seal Material (see list of valid entries in Appendix Table 12)
AJ	Filter Pack Material	Text: 20	Filter Pack Material (see list of valid entries in Appendix Table 13)
AK	Top Of Well Seal*	Real	Depth to top of well seal in feet or meters
AL	Top Of Filter Pack*	Real	Depth to top of filter pack in feet or meters
AM	Bottom Of Sump*	Real	Depth to bottom of sump in feet or meters
AN	Bottom Of Borehole*	Real	Depth to bottom of borehole in feet or meters
AO	Top Of Casing Elevation Units	Text: 20	Top Of Casing Elevation Units (NGVD, MSL or Arbitrary Benchmark)
AP	Land Surface Elevation Units	Text: 20	Top Of Casing Elevation Units (NGVD, MSL or Arbitrary Benchmark)
AQ	Depth Groundwater First Noted*	Real	Depth in feet or meters that groundwater (if present) was noted during well installation. This depth entry will appear in Soil Lithology reports and boring logs.
AR	Boring Comments	Text: 255	General comment field. This entry will appear in Soil Lithology reports. Example: Boring was terminated at 17 feet and completed as monitor well MW-6. Do not use special characters such as “Tabs” or “Carriage Returns”.

*** Must be reported in the correct units of measure (Feet or Meters) as designated by the project manager. This information may be obtained by reviewing the Client table in “Mixing” English and Metric units of measure in this WC EDD format is not permitted.**

Appendix – Standard TerraBase® codes for use with aforementioned EDDs and reports:

This section is provided for engineering and contractor staff reference when constructing hard copy reports and WC EDD formats for data submission **to the PROJECT MANAGER**. These codes are maintained in user-defined lists. Be sure to review these lists with the project manager before submitting any geotechnical edd.

1. Installation Method (WC EDD Column O):

Installation Method
Air Rotary
Direct Push
Hollow Stem Auger
Mud Rotary
Solid Stem Auger
Wash Rotary

2. Well Status; (WC EDD Column T):

Well Status
Active
Inactive
Abandoned
Decommissioned

3. Well Designation; (WC EDD Column U):

Well Designation
Upgradient
Downgradient
Sidegradient

4. Lithology Screened; (WC EDD Column V):

USCS Soil Type	Soil Type Description
AS	Artificial Surface (not a USCS group symbol)
CH	Inorganic clays of high plasticity, fat clays.
CL	Inorganic clays of low to medium plasticity; gravelly clays, silty clays, sandy clays, lean clays.
CR	Concrete (not a USCS group symbol)
FI	Fill (not a USCS group symbol)
GC	Clayey gravels and gravel-sand-clay mixtures.
GM	Silty gravels and gravel-sand-silt mixtures.
GP	Poorly graded gravels, gravel-sand mixtures, little or no fines.
GW	Well graded gravels, gravel-sand mixtures, little or no fines.

K13	Aggregate (not a USCS group symbol)
MH	Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts.
ML	Inorganic silts, very fine sands, rock flour, silty or clayey fine sands.
OH	Organic clays of medium to high plasticity.
OL	Organic silts and organic silt-clays of low plasticity.
Pt	Peat, muck, other highly organic soils.
SC	Clayey sands, sand-clay mixtures.
SH	Bedrock shale (not a USCS group symbol)
SM	Silty sands, sand-silt mixtures.
SP	Poorly graded sands, gravelly sands, little or no fines.
SW	Well graded sands, gravelly sands, little or no fines.

5. Sampling Equipment; (WC EDD Column X):

Sampling Equipment
Bailer
Corer
Direct
Down Hole
Grab
Low Flow Cell
Submersible Pump
Trowel

6. Remediation Equipment; (WC EDD Column Y):

Remediation Equipment
NA
Single Phase
Dual Phase
VES
Air Sparging

7. Riser Material; (WC EDD Column AE):

Riser Material
Carbon Steel
Stainless Steel
Polyvinyl Chloride
Not Available

8. Screen Material; (WC EDD Column K):

Screen Material
Carbon Steel
Stainless Steel
Polyvinyl Chloride
Not Available

9. Sump Material; (WC EDDColumn AF):

Sump Material
Carbon Steel
Stainless Steel
Polyvinyl Chloride
Not Available

10. Cover Type; (WC EDDColumn AG):

Cover Type
Flush Mount
Above-Ground Shroud
Stick-up

11. Grout Material; (WC EDDColumn AH):

Grout Material
Cement-Bentonite
Cement

12. Well Seal Material; (WC EDDColumn AI):

Well Seal Material
Bentonite Pellets
Bentonite Powder
Sugar Sand

13. Filter Pack Material; (WC EDDColumn AJ):

Filter Pack Material
20/40 Filter Sand
Sand
Gravel