

**FLORIDA DEPARTMENT OF ENVIRONMENTAL
PROTECTION
STATUS AND TREND
MONITORING NETWORKS**

**FIELD SAMPLE DATABASE DATA DICTIONARY
VERSION 2.7**

October 16, 2018

REQUIRED FIELD MEASUREMENTS

For Surface Waters

MEASUREMENT ¹	UNITS	LEGACY STORET CODE
Water Temperature, field	°C	00010
pH, field	Std. units	00406
Specific Conductance @ 25 C, field ²	µmho/cm @ 25°C	00094
Dissolved Oxygen, field	milligrams/L	00299
Dissolved Oxygen Percent Saturation, field	%	00301
Secchi Depth (transparency) ²	Meters	00078
Total Depth @ Sampling Site	Meters	82903
Stage ³	Feet	00065
Sample Depth	Meters	90068

¹ = Measurements which are not taken, but required, should be listed as null values qualified with the 'O' value qualifier. A comment detailing why the measurement was not taken is required.

² = If disc is visible on bottom of water body the value reported should be the value of the total depth with the 'S' value qualifier. The comment 'Secchi visible on bottom' is required.

³ = Surface water trend sites only, where available.

For Ground Waters

MEASUREMENT ¹	UNITS	LEGACY STORET CODE
pH, field	Std. units	00406
Specific Conductance @ 25 C, field	UMHOS/CM @ 25°C	00094
Water Temperature, field	°C	00010
Dissolved Oxygen, field	milligrams/L	00299
Dissolved Oxygen Percent Saturation, field	%	00301
Turbidity, field	NTU	82078
Depth to Water from Measuring Pt.	Feet	72109
Elevation of Measuring Pt.	Feet above or below NGVD	82514
Microlanduse ²	NA	84147

¹ = Measurements which are not taken, but required, should be listed as null values qualified with the 'O' value qualifier. A comment detailing why the measurement was not taken is required.

² = Status network sites and once per year at Trend sites.

ACCEPTABLE FORMATS

Text Format (comma or pipe delimited):

NAME	TYPE	TOTAL CHARACTERS OR DIGITS	DECIMAL DIGITS
STATION	TEXT	80	N/A
STORET	NUMERIC	10	0
PARAM_NAME	TEXT	40	N/A
TEXT_VALUE	TEXT	50	N/A
VAL_QUAL	TEXT	10	N/A
SAMP_DATE	TEXT	8	N/A
SAMP_TIME	TEXT	4	N/A
SAMP_SEQ	TEXT	2	N/A
SAMP_TYPE	TEXT	1	N/A
PROJECT	TEXT	10	N/A
RESULT_COMMENT	TEXT	2000	N/A
SAMPLE_COMMENT	TEXT	500	N/A
SAMPLER_NAMES	TEXT	250	N/A

MS Excel format:

NAME	TYPE	TOTAL CHARACTERS OR DIGITS	DECIMAL DIGITS
STATION	TEXT*	80	N/A
STORET	NUMERIC	10	0
PARAM_NAME	TEXT	40	N/A
TEXT_VALUE	TEXT	50	N/A
VAL_QUAL	TEXT	10	N/A
SAMP_DATE	TEXT	8	N/A
SAMP_TIME	TEXT	4	N/A
SAMP_SEQ	TEXT	2	N/A
PROJECT	TEXT	10	N/A
RESULT_COMMENT	TEXT	2000	N/A
SAMPLE_COMMENT	TEXT	500	N/A
SAMPLER_NAMES	TEXT	250	N/A

* = All text columns will be left justified

Field/Column: **Station name**

Description: A 80-character alphanumeric code identifying the station. Must be unique to reporting agency. Must not be changed at any time.

Format: 80 alphanumeric characters

Typical Values: Z1-SL-2001, LEO001, US27 and I4 Deep, NASSAU RIV AT US17

Legal Values: Any unique alphanumeric identifier up to 80 characters long

Missing Values: None legal – field/cell must be filled

Notes: This must uniquely identify site throughout the reporting agency and cannot be changed. Must match into site database.

Database Field/Column Name: T_FIELD_DATA.SITE_ID and/or T_FIELD_DATA.FIELD_ID

Database Field/Column Type and Size: Character/Text, 80

Field/Column: **STORET code**

Description: USEPA Legacy STORET parameter code

Format: 10 numeric characters

Typical Values: 10, 76356, 1305

Legal Values: Historic US EPA STORET code

Missing Values: None legal – field/cell must be filled.

Notes: Legacy STORET codes refer to specific measurement units -- make sure analytical values reflect the correct measurement units. Measurements which do not have official STORET codes may be assigned pseudo-STORET codes by DEP.

Database Field/Column Name: T_FIELD_DATA.PARAMETER_CODE

Database Field/Column Type and Size: Character/Text, 10

Field/Column: **Parameter name**

Description: Parameter name as assigned by laboratory

Format: 40 alphanumeric characters

Typical Values: Bicarbonate alkalinity, Total Iron, DICOTHAL

Legal Values: Any parameter name

Missing Values: NONE – field/cell must be filled

Notes: This is the parameter name as assigned by laboratory and should be preserved in case of questions about proper parameter codes. Standardized STORET names MUST NOT be substituted; original names MUST be preserved.

Database Field/Column Name: T_FIELD_DATA.PARAMETER_NAME

Database Field/Column Type and Size: Character/Text, 40

Field/Column: **Text Value**

Description: Text results of any measurement, see also BDL and VAL_QUAL fields which follow.

Format: 50 characters

Typical Values: 100.34, -150, 0.0032, 2900, 5.0E+04

Legal Values: Any valid value

Missing Values: Only legal if Value qualifier is 'O'. Otherwise, field/cell must be filled.

Notes: This field/cell is intended to preserve significant digits for numerical value, as reported by the analyzing laboratory or field personnel. It may be in decimal or scientific notation and will be used for reporting purposes (see value). It may be used for non-numeric data (i.e. binary yes/no data such as presence/absence of sulfide odor). Any associated data qualifiers will be listed in the VAL_QUAL field.

Database Field/Column Name: T_FIELD_DATA.VALUE_TEXT

Database Field/Column Type and Size: Character/Text, 50

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Field/Column: **Value qualifier**

Description: Comment on goodness of this datum.

Format: 10 character.

Typical Values: J, O, S, blank

Legal Values:

Symbol	Meaning
A	Value reported is the average of two or more determinations.
J	Estimate value. Shall be accompanied by a detailed explanation to justify the reason(s) for designating the value as estimated. Examples of situations in which a "J" code must be reported include: instances where a quality control item associated with the reported value failed to meet the established quality control criteria (the specific failure must be identified); instances when the sample matrix interfered with the ability to make any accurate determination; instances when data are questionable because of improper laboratory or field protocols (e.g., composite sample was collected instead of a grab sample); instances when the analyte was detected at or above the method detection limit in an analytical laboratory blank other than the method blank (such as calibration blank) and the value the blank is greater than 10% of the associated sample value; or instances when the field or laboratory calibrations or calibration verifications did not meet calibration acceptance criteria.
O	Sampled but analysis lost or not performed.
R	Significant rain (typically in excess of ½ inch) in the past 48 hours, which might contribute to a lower or higher than normal value.
S	Secchi disk visible to bottom of waterbody. The value reported is the depth of the waterbody at the location of the Secchi disk measurement.
!	Indicates that the reported value deviates from historically established concentration ranges.
?	Data are rejected and should not be used. Some or all of the quality control data for the analyte were outside criteria, and the presence or absence of the analyte cannot be determined from the data.

Missing Values: blank

Database Field/Column Name: **T_FIELD_DATA.QUALIFIER**

Database Field/Column Type and Size: Character/Text, 10

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Field/Column: **Date Sampled**

Description: Year, month and day sample was taken

Format: 8 numeric characters in YYYYMMDD form

Where: YYYY is year, MM is month, DD is day

Typical Values: 20090103, 19880808, 19921020, 20000101

Legal Values: Any real date

Missing Values: None legal – field/cell must be filled.

Notes: Duplicate samples will be addressed by sample sequence number. No modifications to the sample date will be used to differentiate between duplicate samples.

Database Field/Column Name: T_FIELD_DATASAMPLED_DATE

Database Field/Column Type and Size: Date

Field/Column: **Time Sampled**

Description: Hour and minute sampling began for a group of related sample containers and/or field measurements.

Format: 4 numeric characters in HHMM form

Where: HH is hour in military 24 hour format, MM is minute

Typical Values: 0930, 1356, 2330

Legal Values: Any real time

Missing Values: None legal – field/cell must be filled

Notes: Note that time is in 24 hour format where 2 PM is 1400. Duplicate samples should be given different sample times, and different sample sequence numbers (see below). Samples taken from different depths will generally have different sample times. A single sample time will be assigned to a group of sample containers taken at the same depth from the same station.

Database Field/Column Name: T_FIELD_DATA.SAMPLED_TIME and T_FIELD_DATA.ANALYSIS_TIME

Database Field/Column Type and Size: Character/Text, 4

Field/Column: **Sample sequence number**

Description: Sequence number to differentiate between independent samples taken at the same station on the same day (duplicate samples, or samples taken from different depths at the same station).

Format: 2 numeric characters

Typical Values: 1, 2

Legal Values: 1 to 99

Missing Values: 1

Notes: A sequence number is used to uniquely identify measurements coming from the same station on the same day (see samp_time above). The sequence number distinguishes samples taken at the same station that differ by time, and/or sample depth. For surface waters, 1) the first sample taken will be the one closest to the water surface and will be assigned a sample sequence number of 01, 2) when a duplicate sample is taken it will be collected at the upper most sample depth and given a sample sequence number of 02, 3) if a duplicate is taken at the station the third sample will be comprised of field measurements coming from the bottom most sample and given a sequence number of 03.

Database Field/Column Name: T_FIELD_DATA.SAMPLE_TYPE

Database Field/Column Type and Size: Character/Text, 12

Field/Column: **Project identifier**

Description: Text string describing project for which sample was taken

Format: 10 alphanumeric characters

Typical Values: Z1GT0901, Z6SL0901, Z3CA0902

Historical Values: SJRM9611, SWCA0401, SFLR0305, NWFQ9301, SFWB9610

Legal Values: Any valid project description, followed by a short description

Missing Values: NONE – field/cell must be filled.

Notes: Project identifier consists of three acronyms: Zone Name, Project Type, and Date in YYYY format. Should be the same for all of a project's data (field & laboratory).

Current Project Types (calendar year 2017):

- GT - Ground Water Trend
- ST - Surface Water Trend
- UA - Status Unconfined Aquifers
- CA - Status Confined Aquifers
- SS - Status Streams
- LR – Status Rivers
- SL - Status Small Lakes
- LL - Status Large Lakes
- CN – Status Canals
- SP - Special Projects

Historic Project Types:

- B - Background
- M - Ground Water Temporal Variability, Monthly/Quarterly
- T - Surface water Temporal Variability, Monthly
- V - VISA (Very Intense Study Areas for ground water protection)
- LS - Status Low Order Stream
- HS - Status High Order Stream

Start date is the year and month sampling began in YYYY format.

Database Field/Column Name: T_FIELD_DATA.PROJECT_ID

Database Field/Column Type and Size: Character/Text, 10

Field/Column: **Result Comment**

Description: Comment on field analysis

Format: 2000 alphanumeric characters.

Typical Values: Secchi visible on bottom, Warm sample, Wrong preservative

Legal Values: any alphanumeric string

Missing Values: blank

Notes: This field/cell should contain the reason(s) for qualifying any values.

Database Field/Column Name: T_FIELD_DATA.TEST_COMMENT

Database Field/Column Type and Size: Character/Text, 2000

Field/Column: **Sample Comment**

Description: Comment on site conditions or equipment used

Format: 500 alphanumeric characters.

Typical Values: Used van dorn PB8, high flow during sampling event, algae present

Legal Values: any alphanumeric string

Missing Values: blank

Notes: This field/cell should contain information to the site sampled

Database Field/Column Name: T_FIELD_DATA.SAMPLE_COMMENT

Database Field/Column Type and Size: Character/Text, 500

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Field/Column: **Sampler**

Description: Name of person(s) responsible for the collection of the sample.

Format: 50 alphanumeric characters.

Typical Values: James Smoot, Linda Gafle

Legal Values: any person's name, use full names not initials

Missing Values: None legal – field/cell must be filled.

Notes: If listing multiple names list crew leader first, and write out full names for all samplers. Separate names with a comma.

Database Field/Column Name: T_FIELD_DATA.SAMPLER_NAME

Database Field/Column Type and Size: Character/Text, 250
