EIM Help – Well Water Level Template

Version 4.0
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How to use this help

This template is for **discrete water levels**. It's basically a condensed version of the Results template. Some of the column names are slightly different than the Results template (shown in parentheses).

Use the grid below when you fill out your Well Water Level Template. Each row corresponds to a column in the template.

Other Templates to Consider

You can also use the **Results template** to submit discrete water levels. If you have **transducer water levels**, submit them in the **Time Series Results template**. Find them in the EIM Help Center.

Color Coding in Grid

Color coding gives you a quick indication of required fields. This information is also in the "Requirements" column.

- **Yellow/Bold** = Required
- **Blue/Bold** = Required if Field Collection Type is a Measurement (water level).

Key to Help Fields in Grid

- **Column (Col)**: Column heading (A, B, C, etc.) in the EIM template.
- **Field Name**: EIM field name.
- **Description**: EIM field description.
- **Requirements**: Indicates if field is required, conditionally required, or optional.
- **Type**: Type of data field, like text, number, date, or time.
- **Size**: The maximum number or length of characters allowed.
- **Valid Values and Conditions**: Accepted values and format. Longer lists of valid values are at end of document or online.
- **Examples and Guidance**: Examples are in bulleted lists.

Grid - How to Fill Out Your Well Water Level Template

Col	Field Name	Description	Requirements	Type	Size	Valid Values and Conditions	Examples and Guidance
A	**Study ID**	**Unique ID** to identify the Study in EIM.	**Required**	Text	20	Must be valid EIM Study ID.	Use Study ID from: 1. Your Study form, or 2. A Study already in EIM In a single template, don't submit data for more than one study. To load data for more than one study, use separate templates for each.
B	**Location ID**	**Unique ID** to identify the field Location in EIM.	**Required**	Text	15	Must be valid EIM Location ID.	Location IDs are from Column A in your Location template or an existing location in EIM. You will commonly have multiple results records associated with each Location ID. All results records associated with a particular sampling location use that Location ID.

Col	Field Name	Description	Requirements	Type	Size	Valid Values and Conditions	Examples and Guidance
C	**Study Specific Location ID**	**Unique ID** to identify the field location within a particular Study. Only needs to be unique to the Study, not all of EIM. Can be same as Location ID, an abbreviation of Location ID, or something totally different.	**Required**	Text	40	Free text / preferred format. An ID of 8 characters or less displays better on a GIS map.	▪ If your Location ID for a monitoring well is "CITGO-34586-MW4," your **Study-Specific Location ID (SSLID)** could be "MW-4." Each **Location ID must be paired 1-to-1 with a SSLID**. Once you establish a Location ID/Study Specific Location ID pairing (by submitting results), use the same pairing for all future data submittals to your Study. If you aren't sure what Location ID/Study-Specific Location ID pairings were previously used in your Study, download your results data from EIM Search to view them or contact your Data Coordinator. **Download help for** How to Name and Describe Field Locations.
D	**Field Collection Type**	General type of data collection conducted in field.	**Required**	Text	11	▪ **Measurement** - data collected in the field (in-situ) using an instrument. ▪ **Observation** - record of an unsuccessful measurement or sampling attempt.	**For Observations,** use only if a measurement was planned or required but not obtained. **Download help for** Entering Observations. **For Transducer data,** use the Time-Series Results template.
E	**Field Collector**	Name or type of organization that collected the data.	**Required**	Text	15	Must be a valid EIM Field Collector Code. See table of Field Collector valid values (in this document).	▪ Consultant ▪ Ecology

Col	Field Name	Description	Requirements	Type	Size	Valid Values and Conditions	Examples and Guidance
F	**Field Collection Start Date**	Date of measurement or observation in field.	**Required**	Date	10	MM/DD/YYYY	▪ 06/23/1999 ▪ 12/15/2022
G	**Field Collection Start Time**	Time of measurement or observation in field, in local time.	**Required for** Measurements	Time	8	HH:MM:SS or HH:MM ▪ Enter 24-hour time ▪ Enter local time	▪ 19:20 (interpreted as 7:20 PM) ▪ 07:00 (interpreted as 7:00 AM) ▪ 00:07:00 (interpreted as 12:07 AM) ▪ 00:00:00 (interpreted as 12 AM midnight) Leave blank for unknown time - don't enter zero.
H	**Field Collection Date Accuracy**	Indicates how accurate the measurement date is.	**Required for** Measurements	Number	1	▪ **D** - day ▪ **W** - week ▪ **M -** month ▪ **Y** - year	Most values should be "D." For some older water level measurements, the day wasn't logged.

Col	Field Name	Description	Requirements	Type	Size	Valid Values and Conditions	Examples and Guidance
I	Field Collection Comment	Comments or descriptive information about the collection of data in the field.	Optional	Text	2000	Free text	▪ No odor, no sheen **You can have only one Field Collection Comment per field collection event.** A field collection event is: ▪ All measurements collected at the same location, depth, date, time, matrix and source If you enter more than one Field Collection Comment per field collection event, EIM only takes the first one loaded and any others get deleted. If you want to comment about a particular result or group of results within a field collection event, enter it as a Water Level Comment. **Download help for** How to Use EIM's Comment fields.
J	**Well Water Level Measuring Point or TOC ID**	ID for the point on the well from which water levels are measured. Often top of well casing (TOC).	**Required for** Measurements	Text	8	▪ **TOC1** - when measured from top of casing ▪ **TOC2** - when measured from a secondary point at the top of casing (like when the casing gets cut off) ▪ **MP1** - when measured from access port or similar ▪ **MP2** - when measured from a secondary access port or similar	Use the value you submitted in the Location template or that is stored in EIM. If the top of casing gets cut off or you have more than one measuring point, contact your EIM Data Coordinator. They will enter a new Measuring Point ID into EIM for you.

Col	Field Name	Description	Requirements	Type	Size	Valid Values and Conditions	Examples and Guidance
K	**Water Level Parameter Name** (Same as Result Parameter Name in Results template).	Name of the water level parameter used.	**Required**	Text	254	**Measurement** ▪ Water level in well (depth below top of well casing) ▪ Water level in well (depth below measuring point) ▪ Water level in well (depth below land surface) ▪ Depth to product (LNAPL) in well (depth below land surface) ▪ Depth to product (LNAPL) in well (depth below measuring point) ▪ Depth to product (LNAPL) in well (depth below top of well casing) **Observation** ▪ Water level in well (unable to measure) ▪ Depth to product (LNAPL) in well (unable to measure)	The valid values include the text in parentheses.

Col	Field Name	Description	Requirements	Type	Size	Valid Values and Conditions	Examples and Guidance
L	**Water Level Value** (Same as Result Value in Results template).	Water level depth.	**Required for** Measurements	Number	20	Must be a number. ▪ No commas	▪ 26.2 (water level 26.2 feet below the measuring point) Check the accuracy of your instrument and **report the appropriate significant digits.** **Download help for** Field Measurements for more info. **Don't fill this out for Observations.** If you open your data in Excel, be cautious of auto-reformatting. Digits may be lost unless these cells are pre-formatted as Text. For more information about preserving the formatting in this field, **download help for** Preserving Values Corrupted by Excel.
M	**Water Level Value Units** (Same as Result Value Units in Results template).	Units of measure associated with the Water Level Value.	**Required for** Measurements	Text	10	▪ **FT -** feet	▪ FT For water levels measured in meters, contact your EIM Data Coordinator.

Col	Field Name	Description	Requirements	Type	Size	Valid Values and Conditions	Examples and Guidance
N	Water Level Qualifier (Same as Result Data Qualifier in Results template).	Standard annotations for documenting issues with Water Level Values. Also used for Observations to explain why a water level measurement wasn't possible.	**Required** if applicable	Text	3	Must be a valid EIM Data Qualifier. See table of Water Level Qualifier valid values (in this document).	▪ **WLR** (Well site was pumped recently) ▪ **WLS** (Nearby well(s) being pumped during measurement) For **Observations**, use a Water Level Qualifier if it applies, e.g., **WLD** (Well was dry during measurement attempt)
O	**Water Level Accuracy**	Estimated accuracy of the water level measurement.	**Required for** Measurements	Number	3	**Accuracy in feet:** ▪ **WL2 -** +0.01ft ▪ **WL1 -** +0.1ft ▪ **WL0 -** +1ft ▪ **WL6 -** >1ft	
P	**Water Level Method** (Same as Result Method in Results template).	Method by which the water level was obtained.	**Required for** Measurements	Text	20	Must be a valid EIM Method Code. See table of Water Level Method valid values (in this document).	▪ **GWLMT** - (Groundwater level by electric tape measurement)

Col	Field Name	Description	Requirements	Type	Size	Valid Values and Conditions	Examples and Guidance
Q	Water Level Comment (Same as Result Comment in Results template).	Additional comments about the water level measurement.	Optional	Text	2000	Free text	For water levels qualified **WLZ** (Well water level affected by other conditions), explain details here.

Go back to Field Collector help

EIM Field Collector valid values

Valid Value	Description
Business	Business, Trained Staff
ConsDistrict	Conservation District
Consultant	Consultant, Professional
Ecology	WA Dept of Ecology
GovFed	Government, Misc. Federal
GovLocal	Government, Misc. Local
GovState	Government, Misc. State
GovTribal	Government, Tribal
HealthLocal	Health Dept., Local
HealthState	Health Dept., State
NGO	Non-Governmental Organization
NOAA	National Oceanic & Atmospheric Administration

Valid Value	Description
University	University
USACE	US Army Corps of Engineers
USEPA	US Environmental Protection Agency
USGS	US Geological Survey
USNPS	US National Parks Service
UtilityPrivate	Utility, Private
UtilityPublic	Utility, Public
Volunteer	Volunteer, Trained
WellDriller	Well Driller
WellOwner	Well Owner
WDFW	WA Dept of Fish & Wildlife
WDNR	WA Dept of Natural Resources

Go back to Water Level Qualifier help

EIM Water Level Qualifier valid values

*Data qualifiers used with Observation Field Collection Types

Valid Value	Description
WLA	Well water level affected by atmospheric pressure.
WLB	Well water level affected by tidal stage.
WLC	Well water level affected by ice.
WLD	Well was dry during measurement attempt. *
WLE	Well was flowing recently.
WLF	Well was flowing and could not be measured. *
WLG	Nearby well(s) flowing during measurement.
WLH	Nearby well(s) flowing recently.
WLI	Well site was being injected during measurement.
WLJ	Nearby well site(s) being injected during measurement.
WLK	Water was cascading down inside of well.
WLL	Well water level affected by brackish or saline water.
WLM	Well was plugged and not in hydraulic contact with the aquifer. *

Valid Value	Description
WLN	Well measurement discontinued. *
WLO	Well water level affected by/could not be measured due to obstruction in well. *
WLP	Well site was being pumped during measurement.
WLR	Well site was pumped recently.
WLS	Nearby well(s) being pumped during measurement.
WLT	Nearby well(s) pumped recently.
WLV	LNAPL (floating product) or other foreign substance on well water.
WLW	Well was destroyed and could not be measured. *
WLX	Well water level affected by nearby surface-water stage.
WLZ	Well water level affected by other conditions. **Note:** You must add a comment to the Water Level Comment field (column Q) explaining the conditions.

Go back to Water Level Method help

EIM Water Level Method valid values

Valid Value	Description
GWL-OIL-METER	Product or groundwater level by electronic oil/water interface meter
GWL-TAPE-PASTE	Product or groundwater level by measuring tape with hydrocarbon- and water-sensitive paste
GWLMA	Groundwater level by airline measurement.
GWLMB	Groundwater level by analog (mechanical) recorder.
GWLMC	Groundwater level by calibrated airline measurement.
GWLMD	Groundwater level by float / digital punch tape.
GWLME	Groundwater level, estimated.
GWLMF	Groundwater level by float / shaft encoder / data logger.
GWLMG	Groundwater level by mechanical pressure-gage measurement.
GWLMH	Groundwater level by calibrated mechanical pressure-gage measurement.
GWLML	Groundwater level interpreted from geophysical logs.
GWLMM	Groundwater level by manometer measurement.
GWLMN	Groundwater level by nonrecording gage.
GWLMP	Groundwater level by pressure transducer.
GWLMQ	Groundwater level by downhole mechanical pressure recorder (DST).
GWLMR	Groundwater level reported, method not known.
GWLMS	Groundwater level by steel tape measurement.
GWLMT	Groundwater level by electric tape measurement.
GWLMU	Groundwater level by sonic meter.
GWLMV	Groundwater level by calibrated electric tape measurement.
GWLMZ	Groundwater level by other method.
Unknown	Unknown method - only for historic data or results where the method can't be determined.

Document Revision History

Revision Date	Revision No.	Summary of Changes	Reviser(s)
09/10/2013	2013.01	Changes to EIM data model	CN
10/18/2017	3.0	Changed versioning system and made formatting updates for new help center. Made everything REQUIRERD instead of a mix of required and required for measurements (old purple color). Moved to Word/PDF from Excel for accessibility reasons. Changed name from Water levels template to Well Water Levels template.	CN
12/06/2018	3.1	Updated descriptions in Water Level Method valid values table from Water level by to Groundwater level by	KC
05/03/2020	3.2	Removed dash from Study-Specific Location ID in Field Name column, added valid value of “Depth to product (LNAPL) in well (unable to measure)” to Water Level Parameter Name. Removed “meters” from Water Level Value Units and added comment about contacting Data Coordinator in examples column. Removed Water Level Accuracy valid values in meters (WL3, WL4, WL5, WL7) and added comment in examples column.	KC
06/17/2020	3.3	Updated document name for link to “How to Name and Describe Field Locations.” Updated links. Increased font size from 10 to 11. Other accessibility edits.	CN
04/21/2021	3.4	Added information about formatting to Field Collection Start Time.	KC
10/11/2021	3.5	Changed color coding from yellow to blue for “Required if Field Collection Type is Measurement”, added 2 water level methods.	CN/KC
11/04/2021	3.6	Clarified that there should only be data for a single study in each water level template.	KC
01/04/2022	3.7	Removed periods from the end of each valid value for Water Level Parameter Name.	KC
12/30/2022	3.8	Added definition for asterisk used in the Water Level Qualifier valid values list on page 9.	KC
10/12/2023	3.9	Added a sentence to the water level qualifier WLZ description: “You must add a comment to the Water Level Comment field (column Q) explaining the conditions.”	KC
08/26/2024	3.10	Updated wording in Well Water Level Measuring Point or TOC ID. Updated description of Field Collection Type of Measurement to “data collected in the field (in-situ) using an instrument” and changed text “For Observations, enter a record only if” to “For Observations, use only if.” Removed sentence “For water levels measured in meters, contact your EIM Data Coordinator” from Water Level Accuracy.	KC

Revision Date	Revision No.	Summary of Changes	Reviser(s)
7/09/2026	4.0	Changes for Check Data project.	KC, CN