# SSHCZO Metadata Worksheet

|  |  |
| --- | --- |
| Data File Name | **SH\_CZMW6.csv** |
| Date Prepared | 2017-12-05 |
| Descriptive Title | CZMW 6 |
| Update Frequency | Annually |
| Abstract | CZMW 6 was drilled in 2012 using a rotary air. The well is cased to 8 meters with 5 cm diameter pvc and slotted for the bottom 1 meter. Groundwater level data and water temperature for CZMW 6 are measured every 30 minutes from 2014-04-28 to 2016-10-22 and every 15 minutes 2017-07-12 to present using a HOBO U20-001-01 non-vented pressure transducer.. |
| InvestigatorContact Info | Dr. Susan Brantley, Professor of Geosciences, The Pennsylvania State University, 2217 Earth and Environmental Systems Institute, University Park, PA, 16802, 814.865.1619, sxb7@psu.edu. |
| Data Value Descriptions | * COL1: label = TmStamp\_UTC
* COL2: label = WaterTemp\_C; Units = degC
* COL3: label = WL\_BLG\_m; water level below ground; Units = meters
 |
| Keywords | Groundwater Depth, Groundwater Temperatures, Hydrology |
| Methods | Groundwater level measurements are currently set to be recorded every 15 minutes on a HOBO U20-001-01 non-vented pressure transducer. Data are manually downloaded monthly using HOBO-Ware Pro software. Sensor depth is calculated in the software by processing with barometric pressure data recorded on a separate HOBO U20-001-01 pressure transducer. Water level below ground determined using the suspended cable length to sensor below ground and taking the difference of the SensorDepth\_m [WL\_BLG\_m = 7.18 - SensorDepth\_m].Casing type = pvcTOC above land surface = 0.46 metersSensor location down borehole from TOC = 7.64 metersSensor location from ground level = 7.18 metersQuality control:Data were checked by analyzing and graphing data in R package and comparing to precipitation and manual water level measurements using a Solinist electric tape. WL\_BLG\_m data are adjusted for sensor drift by comparison of the manual measurements. Bad, missing, or erroneous data values were removed or marked with -9999 which could be caused during data downloads and/or malfunctioning sensors.Data Gaps:20150219 to 20150307 – no sensor deployed during this time frame20150520 to 20151027 – failed sensor 20160526 to 20170712 – multiple bad sensors and corrupted data was not recoverable2019-04-01 – short time for sensor removed during download2018-08-20 – sensor download and sampling during this time period2019-07-05 to 2019-10-23 – water level below sensor level2023-06-09 to 2023-06-14 – water level below sensor level |
| Sites | Shale Hills northing/easting: 147949.3525/ 587190.8312; DMS: 40.665679, -77.901487(NAD\_1983\_StatePlane\_Pennsylvania\_South\_FIPS\_3702); Elevation 310.51 meters |
| Publications | none |
| Citation | The following acknowledgment should accompany any publication or citation of these data: Logistical support and/or data were provided by the NSF-supported Susquehanna Shale Hills Critical Zone Observatory. |
| Data Use Notes | The user of Susquehanna Shale Hills CZO data agrees to provide proper acknowledgment with each usage of the data. Citation of the name(s) of the investigator(s) responsible for the data set, in addition to the generic statement above, constitutes proper acknowledgment. Author(s) (including Susquehanna Shale Hills CZO investigators) of published material that makes use of previously unpublished Susquehanna Shale Hills CZO data agree to provide the Susquehanna Shale Hills CZO data manager with four (4) copies (preferably reprints) of that material for binding as soon as it becomes available. The user of Susquehanna Shale Hills CZO data agrees not to resell or redistribute shared data. The user of these data should be aware that, while efforts have been taken to ensure that these data are of the highest quality, there is no guarantee of perfection for the data contained herein and the possibility of errors exists. These data are defined as either public or private, such that a password may be required for access. |