# SSHCZO Metadata Worksheet

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| Data File Name | **SH\_Well\_W14.csv** |
| Date Prepared | 2022-03-31 |
| Descriptive Title | Well 14 |
| Update Frequency | Quarterly |
| Abstract | Groundwater level data and water temperature for well 14 are measured every 15 minutes using a HOBO U20-001-01 non-vented pressure transducer. Recorded data began 2020-09-15. Data will be manually downloaded approximately every month and processed. |
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| Data Value Descriptions | * COL1: label = TmStamp\_UTC; TimeZone = UTC * COL2: label = WaterTemp\_C; Units = degC, water temperature * COL3: label = WL\_BLG\_m; Units = meters; corrected water level below ground |
| Keywords | Groundwater Depth, Groundwater Temperatures, Hydrology |
| Methods | Groundwater level measurements are 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 depths are calculated in the software by processing with barometric pressure data recorded on a separate HOBO U20-001-01 pressure transducer. Manual field measurements are made using a Solinist electric tape to measure water level below ground. These manual measurements are used to apply a prorated correction between visits to create the final water level below ground (WL\_BLG\_m). The QA/QC process is accomplished in R (R Core Team, 2022).  R Core Team (2022). R: A language and environment for statistical computing. R  Foundation for Statistical Computing, Vienna, Austria. URL  https://www.R-project.org/.  well_diagram  TOC above land surface = 0.66 meters  Sensor location down borehole from TOC = 4.21 meters  Sensor location below land surface = 3.55 meters  The water table below land surface obtained by subtracting the head pressure and above ground casing length from the sensor depth.  -9999 marks erroneous or missing data due to data downloads or sensor malfunction  Data Gaps  2021-01-25 to 2021-03-02: bad sensor; required sensor to be replaced.  2021-12-20: data downloaded  2022-06-06: spike in data removed for 1 hour |
| Sites | Shale Hills Valley DMS: 40.665401, -77.902734 NAD\_1983\_StatePlane\_Pennsylvania\_South\_FIPS\_3702); Elevation 281.969 |
| 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. |
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