# CZO Metadata Worksheet

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| Data File Name | **SSHCZO\_DTS\_GarnerRun\_141110.zip** |
| Date Prepared | 4/20/2015 |
| Descriptive Title | Fiber-Optic Distributed Temperature Sensor |
| Update Frequency | Once – data from November – December 2014 |
| Abstract | A fiber-optic distributed temperature sensor (FO-DTS) was deployed November – December 2015 along 680 meters of Garner Run. The FO-DTS measured stream temperatures every meter with 0.01°C spatial resolution and 10 min sampling frequency. Each data file is a tab-delimited text file containing temperature, stokes, and anti-stokes backscatter data for every meter. |
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| Data Value Descriptions | *Describe each column, including label (variable name), units, etc. Example:*   * COL1: label = Length (m) * COL2: label = temperature (°C) * COL3: label = Stokes scatter (nm) * COL4: label = Anti-Stokes scatter (nm) |
| Keywords | FO-DTS, temperature, thermal data, Rayleigh scattering |
| Methods | Data collected using a Sensornet system (Sentinel DTS-LR) with an ORYX Multiplexor and calibrated using a single-ended calibration with one ice-bath, one stream coil, and a PT-100 for air temperature. The DTS was borrowed from the NSF CTEMPS program. |
| Citation | The following acknowledgment should accompany any publication or citation of these data: Logistical support and/or data were provided by the NSF-supported Shale Hills Susquehanna Critical Zone Observatory. |
| Sites | *Location(s) of equipment and/or samples taken. Example:*   * DTS deployed in Garner Run * DTS Start – N 40° 41' 32.892" W 77° 55' 41.052 * DTS End - N 40 41' 43.14'' W 77 55' 22.56'' |
| Publications | In progress |
| Data Use Notes | The user of Shale Hills Susquehanna 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 Author(s) (including Shale Hills Susquehanna CZO investigators) of published material that makes use of previously unpublished Shale Hills Susquehanna CZO data agree to provide the Shale Hills Susquehanna CZO data manager with four (4) copies (preferably reprints) of that material for binding as soon as it becomes available. The user of Shale Hills Susquehanna 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. |