# SSHCZO Metadata Worksheet

|  |  |
| --- | --- |
| Data File Name | **Herndon\_2014\_SSHCZO\_data.xlsx** |
| Date Prepared | 3/04/2014 |
| Descriptive Title | Surface and groundwater chemistry from within SSHCZO and the Shaver Creek watershed |
| Update Frequency | n/a |
| Abstract | Surface and groundwater were collected from the SSHCZO and from the surrounding Shaver Creek watershed in October 2014 by students enrolled in Hydrogeochemistry at Kent State University. The motivation for this data collection was to evaluate the spatial variability of inputs from hillslope soils to the SSHCZO stream from soils; however, dry conditions precluded soil water collection and efforts shifted to evaluating water chemistry in the larger Shaver Creek watershed. The stream at Shale Hills was not flowing during sample collection; thus samples were obtained from stagnant pools of water. This file contains information for collected water samples, including location data and geochemical data (pH, specific conductance, concentrations of anions and cations). |
| Investigator  Contact Info | *Elizabeth Herndon, Assistant Professor; 221 McGilvrey Hall, Kent State University, Kent OH 44242; 330-672-3656; eherndo1@kent.edu* |
| Data Value Descriptions | *Describe each column, including label (variable name), units, etc. Example:*   * COL1: label = Sample Name * COL2: label = Site Name * COL3: label = Sampling Date * COL4: label = Latitude * COL5: label = Longitude * COL6: label = Y-coordinate, obtained from tree survey * COL7: label = X-coordinate, obtained from tree survey * COL8: label = Ground Elevation, Units = m * COL9: label = Water Table Elevation, Units = m * COL10: label = Specific Conductance, Units = microSiemen/cm * COL11: label = Temperature, Units = degrees Celsius * COL12: label = pH * COL13: label = Na, Units = micromole/L, dissolved sodium * COL14: label = K, Units = micromole/L, dissolved potassium * COL15: label = Ca, Units = micromole/L, dissolved calcium * COL16: label = Mg, Units = micromole/L, dissolved magnesium * COL17: label = Fe, Units = micromole/L, dissolved iron * COL18: label = Mn, Units = micromole/L, dissolved manganese * COL19: label = Fe(II), Units = micromole/L, dissolved ferrous iron * COL20: label = F, Units = micromole/L, dissolved fluoride * COL21: label = Cl, Units = micromole/L, dissolved chloride * COL22: label = SO4, Units = micromole/L, dissolved * COL23: label = Br, Units = micromole/L, dissolved bromide * COL24: label = NO3, Units = micromole/L, dissolved nitrate * COL25: label = PO4, Units = micromole/L, dissolved phosphate * COL26: label = DOC, Units = micromole/L, dissolved organic carbon |
| Keywords | *Stream and groundwater chemistry* |
| Methods | Samples collected by hand (surface water) or with a peristaltic pump (groundwater from wells). Water samples were filtered (< 0.45 um nylon filters) into collection bottles for anion, cation, or dissolved organic carbon analysis. Water samples for cation analysis were acidified with 2-3 drops ultrapure concentrated nitric acid. Water samples for DOC analysis were acidified with 2-3 drops ultrapure hydrochloric acid. Samples were analyzed for cations on a PerkinElmer ICP-OES 8000, for anions on a ThermoFisher Dionex ICS-2100, for DOC on a Shimadzu TOC-L, and for Fe(II) using a Hach kit (1,10-phenanthroline method) and spectrophotometer. |
| Sites | SSHCZO: stream water and groundwater; Shaver Creek: stream water from multiple locations; individual sampling locations specified within worksheet |
| Publications |  |