# SSHCZO Metadata Worksheet

|  |  |
| --- | --- |
| Data File Name | **Shavers\_Creek\_Carbon\_Sulfur** |
| Date Prepared | 4/27/2020 |
| Descriptive Title | Carbon & Sulfur Analyses for Cole Farm |
| Update Frequency | As data becomes available |
| Abstract | A rock core at Cole Farm and two bedrock samples within the Shavers Creek watershed were sampled 8/23/2019 and 9/12/2019, respectively. The CFW5 rock core was drilled by Brandon Forsythe, and the bedrock was sampled by hand by Alison Richards. These samples were analyzed for carbon and sulfur content using a combustion-IR Carbon/Sulfur determinator (LECO SC632). |
| InvestigatorContact Info | Alison Richards, Undergraduate student, Department of Geosciences, The Pennsylvania State University, University Park, PA, 16802 awr5513@psu.edu Michael Forgeng, M.S. student, Department of Geosciences, 447 Deike, The Pennsylvania State University, University Park, PA, 16802 mjf5807@psu.edu 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= SampleName
* COL2: label= Carbon\_Percentage,
* COL3: label= StDev\_Carbon\_Percentage
* COL4: label= Sulfur\_Percentage
* COL5: label= StDev\_Sulfur\_Percentage
 |
| Keywords | Rock core, carbon, sulfur, standard deviation |
| Methods | SS30 and Outcrop 2 were sampled by hand and the CFW5 rock core was sampled to 4.5 meters using a drill. All samples were air dried for at least five days before they were ground using a mortar and pestle and sieved through a number 100 sieve with a hole diameter of 150 μm. 0.15 grams of ground sample were measured into ceramic boats for carbon and sulfur analysis. The samples were run in a combustion-IR Carbon/Sulfur determinator (LECO SC632).The detection limits for the LECO SC632 are 0.08% for carbon and 0.004% for sulfur. |
| Sites | Sites:Cole Farm:

|  |  |
| --- | --- |
| Name | CFW5 |
| Latitude | 40.63623 |
| Longitude | -77.94240 |
| Sampling method | Rock core |

Shavers Creek:

|  |  |
| --- | --- |
| Name | SS30 |
| Latitude | 40.62416 |
| Longitude | -77.95784 |
| Sampling method | Bedrock by hand |

|  |  |
| --- | --- |
| Name | Outcrop 2 |
| Latitude | 40.63343 |
| Longitude | -77.94176 |
| Sampling method | Bedrock by hand |

 |
| 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. |