National soils project – list of projects:

Carbon related analyses:

~~1. Bulk soil CN and stable isotopes – done waiting for results!~~

* ~~Subtract %carbonate-C from results~~

~~2. Soil carbonate content – done!~~

3. Heavy and light fraction CN and stable isotopes – fractionation done!

* **~~Collect grind and submit~~**
* **~~Acid treat carbonate-containing soils~~**
* **~~Test for POM in heavy fraction~~**
* **Calculate sand in POM fraction**

4. Microbial biomass CN – done except for few last samples! **64-73, 43B, 7B, 56A, 57A, 49A, 21, 7O Dilute in yellow**

* Correct for remaining sample that need to analyze field moisture

5. DOC and TDN - done except for few last samples!

~~6. HH extractable NPOC – done! Waiting for results~~

~~7. HH extractable metals – done! Submitting for ICP analysis today.~~

8. **Soil basal respiration**

Bulk soil properties:

~~1. pH – done!~~

**2**. **EC – part of CEC(?)**

**~~3. Particle size distribution~~**

**~~4. CEC~~**

5. Field moisture and bulk density – 68a, 68c, 69a, 70a, 71a, 71c, 72a, 72b, 73a, 73b

6. hygroscopic moisture

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| unique\_ID | pedon\_ID | horizon | location | mean\_HWC |
| 8 | 10 | a | Blue mounds | NA |
| 73 | 3 | c | Punderson Park | NA |
| 75 | 5 | c | Shoe Factory Rd | NA |
| 76 | 6 | c | Pecatonica | NA |
| 78 | 8 | c | Fox Coulee | NA |
| 79 | 9 | c | Great Bluffs | NA |
| 80 | 11 | c | Good Soldier | NA |
| 81 | 12 | c | Cottonwood | NA |
| 85 | 17 | c | Grab Bag | NA |
| 86 | 18 | c | Potosi | NA |
| 87 | 19 | c | Turah | NA |
| 88 | 20 | c | Clearwater | NA |
| 89 | 21 | c | Olympic | NA |
| 90 | 22 | c | Disappointment | NA |
| 93 | 25 | c | Alsea | NA |
| 95 | 28 | c | El Dorado | NA |
| 96 | 29 | c | Merklee | NA |
| 98 | 31 | c | Death Valley | NA |
| 99 | 32 | c | Flagstaff | NA |
| 100 | 33 | c | Jerome | NA |
| 109 | 43 | c | Gambil | NA |
| 111 | 45 | c | Dagmar | NA |
| 112 | 46 | c | Lewis | NA |
| 117 | 51 | c | Finger Lakes | NA |
| 121 | 55 | c | Aroostook | NA |
| 123 | 57 | c | Halifax | NA |
| 131 | 67 | c | Wallowa | NA |
| 135 | 7 | o | Black River Falls | NA |
| 137 | 57 | e | Halifax | NA |
| 142 | 6 | b | Pecatonica | NA |
| 165 | 31 | b | Death Valley | NA |

Microbial analysis:

1. ~~DNA extraction and amplification – done~~!

~~2. Sequencing~~

3. ~~Metabolite extraction~~

4. Metabolite LCMS orbitrap analysis