

**Table S1. Measured depth to Cox horizon at field stations.**

| <b>Field Station*</b> | <b>Unit</b>              | <b>Depth to Cox (cm)</b> |
|-----------------------|--------------------------|--------------------------|
| 18GW0905.2            | Qfch                     | 52                       |
| 19GW814.6             | bedrock                  | 54                       |
| 19GW813.1             | Qt1                      | 72                       |
| 20GW0701.10           | out of field area, Qfcr? | 80                       |
| 18GW0904.1            | Qsg                      | 80                       |
| 20GW0715.6            | Qt1                      | 90                       |
| 19GW87.1              | Qt1                      | 100                      |
| 19GW88.1              | Qsg                      | 110                      |
| 20GW0715.4            | Qt2                      | 110                      |
| 20GW0713.5            | Qt2                      | 125                      |
| 20GW0704.4            | Qt2                      | 140                      |
| 19GW89.2              | Qss                      | 150                      |
| 20GW0630.2            | Qls/Qt2                  | 150                      |
| 20GW0701.2            | Qss                      | 150                      |
| 20GW0701.5            | Qss                      | 175                      |
| 20GW0708.2            | Qss                      | 180                      |
| 19GW715.6             | Qt2                      | 200                      |
| 19GW716.4             | bedrock                  | 200                      |
| 19GW89.1              | Qss                      | 200                      |
| 20GW0630.1            | Qt1/2                    | 200                      |
| 20GW0708.5            | Qgs                      | 200                      |
| 18GW0905.4            | Qgs                      | 200                      |
| 20GW0714.1            | Qgs                      | 300                      |

\*See Stanton, 2021 for field station locations.