|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Isotope | Site | all data | subsampled | sp.-controlled |
| F | df | p-value | F | df | p-value | F | df | p-value |
| 15N | Upper Waiakea (200-750 y) | 68.38 | 4 | **< 0.001** | 61.25 | 4 | **< 0.001** | 88.81 | 4 | **< 0.001** |
| ‘Ola’a (2,100 y) | 34.23 | 3 | **< 0.001** | 26.15 | 3 | **< 0.001** | 32.23 | 3 | **< 0.001** |
| Laupāhoehoe (20,000 y) | 28.90 | 3 | **< 0.001** | 32.87 | 3 | **< 0.001** | 27.43 | 3 | **< 0.001** |
| 13C | Upper Waiakea (200-750 y) | 36.42 | 4 | **< 0.001** | 40.12 | 4 | **< 0.001** | 35.07 | 4 | **< 0.001** |
| ‘Ola’a (2,100 y) | 41.29 | 3 | **< 0.001** | 33.00 | 3 | **< 0.001** | 35.20 | 3 | **< 0.001** |
| Laupāhoehoe (20,000 y) | 41.48 | 3 | **< 0.001** | 37.11 | 3 | **< 0.001** | 54.38 | 3 | **< 0.001** |