|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Variable | PC1 | PC2 | PC3 | PC4 | PC5 | PC6 | PC7 |
| La | -0.124 | 0.084 | 0.056 | 0.191 | 0.136 | -0.024 | 0.177 |
| Lu | -0.246 | -0.024 | -0.022 | 0.318 | 0.064 | -0.084 | 0.005 |
| Sm | -0.163 | 0.039 | -0.020 | 0.307 | 0.130 | -0.070 | 0.076 |
| Yb | -0.257 | -0.026 | 0.010 | 0.318 | 0.055 | -0.106 | -0.008 |
| Ce | -0.177 | 0.192 | 0.042 | 0.128 | -0.094 | -0.155 | 0.079 |
| Co | -0.090 | 0.586 | 0.021 | -0.093 | -0.135 | 0.018 | -0.020 |
| Cr | 0.042 | 0.182 | -0.267 | -0.193 | 0.400 | -0.127 | 0.226 |
| Cs | -0.341 | -0.104 | -0.212 | -0.410 | -0.152 | -0.139 | 0.067 |
| Eu | 0.063 | 0.154 | 0.025 | 0.235 | 0.172 | -0.033 | 0.234 |
| Fe | -0.016 | 0.201 | -0.069 | -0.098 | 0.257 | 0.211 | -0.022 |
| Hf | -0.250 | -0.024 | -0.086 | -0.102 | 0.064 | 0.071 | -0.145 |
| Rb | -0.286 | -0.127 | 0.256 | -0.197 | -0.109 | 0.061 | 0.429 |
| Sc | 0.052 | 0.163 | -0.053 | 0.007 | 0.277 | 0.168 | 0.043 |
| Ta | -0.395 | -0.073 | -0.130 | -0.095 | 0.065 | 0.094 | -0.324 |
| Tb | -0.226 | 0.014 | 0.042 | 0.301 | 0.101 | -0.030 | 0.010 |
| Th | -0.339 | -0.087 | -0.139 | -0.123 | 0.057 | -0.045 | -0.057 |
| Zn | -0.157 | 0.084 | 0.105 | -0.091 | 0.222 | 0.285 | -0.312 |
| Zr | -0.228 | -0.018 | -0.054 | -0.092 | 0.085 | -0.022 | -0.179 |
| Al | 0.002 | 0.043 | -0.025 | -0.050 | 0.125 | 0.119 | -0.084 |
| Ba | -0.008 | 0.034 | 0.749 | -0.241 | 0.382 | -0.373 | -0.182 |
| Dy | -0.229 | -0.037 | -0.007 | 0.249 | 0.151 | -0.007 | 0.070 |
| K | -0.199 | -0.116 | 0.336 | -0.079 | -0.108 | 0.515 | 0.431 |
| Mn | -0.163 | 0.604 | 0.106 | -0.024 | -0.407 | -0.092 | -0.040 |
| Na | 0.060 | 0.036 | 0.181 | 0.203 | -0.102 | 0.500 | -0.348 |
| Ti | 0.016 | 0.146 | -0.110 | -0.112 | 0.282 | 0.209 | 0.162 |
| V | 0.039 | 0.185 | -0.112 | -0.091 | 0.183 | 0.140 | 0.145 |
| Eigenvalues: | 0.232 | 0.125 | 0.036 | 0.028 | 0.026 | 0.017 | 0.010 |
| % of variation: | 44.00% | 23.73% | 6.91% | 5.40% | 4.95% | 3.17% | 1.95% |

Supplemental Table 1: Compositional variance explained by the first seven Principal Components (90.1% collectively), for the entirety of the Pátzcuaro Basin sample.