

Variable	pH	P_ppm	K_ppm	Mg_ppm	Ca_ppm	S_ppm	Mn_ppm	Cu_ppm	B_ppm	Zn_ppm	Mo_ppm	Fe_ppm	Na_ppm	CEC_meq_100g	Cu_1	N_2	Cl	Cu_1	Zn_1	Pb_3	Ni_1	As_1	Cd_3	Hg_1	Cr_1	CLAY_%_1	SILT_%_1	SAND_%_1	Organic
Moisture	0.088	0.100	-0.027	-0.058	0.034	0.011	-0.208	0.221	-0.035	-0.168	-0.121	-0.148	-0.038	-0.011	-0.180	-0.092	0.141	-0.036	0.019	-0.155	0.043	-0.040	-0.114	-0.067	0.014	0.031	0.057	0.066	-0.108
Nit_CV	-0.093	-0.110	0.028	0.064	-0.029	-0.008	0.212	-0.229	0.026	0.183	0.134	0.157	0.034	0.018	0.143	0.100	-0.153	0.032	-0.014	0.157	-0.039	0.031	0.118	0.079	-0.012	-0.039	0.064	-0.069	0.117
Asb_1	0.288	-0.068	-0.226	-0.259	-0.100	0.083	-0.291	0.080	-0.280	-0.525	-0.107	-0.125	0.178	-0.183	-0.404	-0.469	-0.293	-0.436	-0.418	-0.598	-0.442	-0.060	-0.403	-0.065	-0.467	-0.047	0.059	0.481	-0.485
Volatile_matter_1	-0.287	0.016	0.313	0.205	0.080	-0.066	0.105	-0.093	0.193	0.380	0.198	0.159	-0.202	0.130	0.242	0.396	-0.203	0.231	0.275	0.298	0.441	-0.174	0.044	0.164	0.188	-0.046	-0.170	-0.318	0.425
GV_2	0.068	-0.206	-0.062	-0.017	0.044	0.116	-0.080	0.118	-0.288	0.051	0.172	0.118	0.002	0.010	0.056	-0.055	-0.095	-0.229	-0.064	-0.191	-0.100	-0.153	-0.091	0.203	-0.126	-0.118	-0.046	0.116	-0.054
C_1	0.003	-0.116	-0.080	-0.047	0.017	0.185	-0.011	0.047	-0.176	0.041	0.169	0.131	-0.014	0.020	0.057	-0.050	-0.004	-0.149	-0.089	-0.100	-0.093	-0.040	-0.086	0.090	-0.065	0.006	0.038	0.022	-0.048
H_2	-0.076	-0.077	0.027	-0.002	0.118	0.043	-0.128	0.073	-0.063	0.055	0.153	0.086	-0.001	0.102	-0.025	0.074	-0.084	-0.069	-0.023	-0.018	0.106	-0.194	-0.073	0.198	0.031	-0.105	-0.098	0.015	0.074
K_1	0.204	0.139	-0.318	-0.390	-0.132	0.295	-0.272	0.289	-0.113	-0.511	-0.087	-0.196	0.133	-0.153	-0.366	-0.455	-0.413	-0.144	-0.235	-0.248	-0.236	0.223	-0.139	-0.279	-0.111	-0.296	0.339	0.208	-0.487
Sulfur_2	0.065	0.056	-0.212	-0.209	0.006	0.129	-0.163	0.237	-0.071	-0.359	-0.087	-0.125	-0.017	-0.035	-0.197	-0.315	0.256	-0.217	-0.220	-0.321	-0.138	-0.048	-0.291	-0.163	-0.176	0.046	0.090	0.272	-0.328
Chlorine_2	0.122	-0.299	-0.296	-0.160	-0.026	-0.148	-0.065	-0.106	-0.216	-0.303	-0.009	-0.015	0.110	-0.067	-0.206	-0.360	-0.098	-0.305	-0.338	-0.285	-0.396	0.057	-0.135	-0.047	-0.383	-0.044	0.047	0.377	-0.379
Ba	0.451	-0.357	0.558	0.589	0.311	-0.221	0.032	-0.487	-0.249	0.188	0.465	0.642	0.264	0.241	0.259	0.294	-0.109	-0.283	0.055	-0.572	-0.052	-0.359	-0.463	0.455	-0.231	-0.427	-0.430	0.086	0.399
Cr	0.404	0.026	0.130	0.137	0.097	-0.023	-0.147	-0.295	-0.087	-0.148	-0.013	0.153	0.366	0.046	0.204	0.014	0.202	-0.103	-0.366	-0.276	-0.143	0.130	-0.143	0.133	-0.296	-0.052	0.016	0.016	-0.016
Cu	0.313	-0.107	-0.156	-0.143	-0.088	-0.143	-0.250	-0.027	-0.257	-0.462	-0.215	-0.151	0.123	-0.190	-0.367	-0.404	0.193	-0.410	-0.372	-0.604	-0.470	-0.006	-0.396	-0.057	-0.508	-0.101	0.023	0.449	-0.419
Co	0.287	0.234	-0.345	-0.534	-0.349	0.303	-0.204	0.250	0.055	-0.601	-0.196	-0.329	0.204	-0.343	-0.474	-0.557	0.462	0.116	-0.146	-0.008	-0.264	0.588	0.108	-0.473	0.024	0.566	0.582	0.086	-0.594
Mn	0.400	-0.022	-0.154	-0.135	0.037	-0.033	-0.233	0.100	-0.153	-0.465	-0.261	-0.077	0.192	-0.075	-0.323	-0.381	0.282	-0.300	-0.301	-0.531	-0.398	0.059	-0.354	-0.069	-0.433	-0.021	0.118	0.355	-0.411
Ni	-0.233	0.159	0.078	-0.295	-0.092	0.446	-0.002	0.577	0.271	-0.054	0.090	-0.057	-0.464	-0.136	0.041	-0.143	0.220	0.042	0.088	-0.068	0.375	-0.171	-0.463	-0.309	0.289	0.163	0.136	-0.041	-0.086
V	-0.125	0.422	0.124	-0.131	-0.169	0.363	0.090	0.091	0.397	0.250	-0.208	-0.142	-0.075	-0.137	-0.039	0.249	0.156	0.489	0.189	0.594	0.137	0.395	-0.039	0.025	0.304	0.323	0.332	-0.594	0.268
Zn	0.401	0.502	-0.161	-0.364	-0.299	0.420	-0.180	0.336	0.082	-0.503	-0.364	-0.361	0.226	-0.320	-0.369	-0.395	-0.708	0.111	-0.059	-0.134	-0.244	0.484	0.031	-0.420	-0.048	0.419	0.465	0.018	-0.420
Sb	0.534	-0.100	0.613	0.360	0.015	-0.344	-0.412	0.210	0.088	0.255	0.191	0.404	-0.137	0.300	0.474	-0.082	0.175	0.456	0.224	0.247	0.286	-0.302	0.541	0.328	-0.212	-0.216	0.487	0.481	0.481
As	0.261	0.686	-0.051	-0.562	-0.387	-0.564	-0.509	0.572	-0.263	-0.602	-0.426	-0.714	0.273	-0.421	-0.570	-0.398	-0.753	-0.192	-0.216	-0.471	-0.187	-0.444	-0.269	-0.023	0.670	0.677	0.029	0.446	0.446
Hg	-0.069	-0.005	-0.107	-0.143	-0.293	0.182	0.090	-0.050	-0.291	0.050	-0.077	-0.080	-0.205	-0.264	0.094	-0.222	0.105	-0.303	-0.218	-0.218	-0.297	0.041	-0.172	-0.105	-0.277	0.022	0.036	0.237	-0.177
Br	-0.565	0.008	-0.545	-0.258	0.191	0.208	0.387	0.147	0.224	-0.003	-0.097	-0.042	-0.293	0.331	0.282	-0.273	-0.082	-0.005	-0.369	0.430	-0.080	0.158	0.505	-0.458	-0.173	0.110	0.121	0.341	-0.303
Cd_2	0.449	-0.256	-0.159	-0.182	-0.115	-0.125	-0.451	0.026	-0.520	-0.469	0.070	-0.072	0.240	-0.190	-0.390	-0.434	0.078	-0.361	-0.214	-0.546	-0.375	-0.112	-0.201	-0.021	-0.261	0.104	0.179	0.369	-0.489
Pb_2	0.211	-0.007	0.220	-0.037	-0.117	-0.052	-0.205	-0.072	0.104	0.142	0.035	-0.030	0.131	-0.136	-0.197	0.187	-0.177	0.501	0.369	0.488	0.143	0.578	0.496	0.118	0.449	0.437	0.439	-0.563	0.152
Al2O3_1	0.111	0.377	0.100	-0.328	-0.193	0.421	-0.270	0.593	0.220	0.001	-0.337	-0.356	-0.126	-0.312	-0.289	-0.015	0.232	0.271	0.165	0.202	0.112	0.190	0.063	0.180	0.513	0.193	0.344	-0.295	0.006
BaO_1	0.239	-0.349	0.487	0.469	0.225	-0.232	0.014	-0.407	-0.192	0.399	0.526	0.560	0.112	0.210	0.257	0.261	-0.159	-0.176	0.133	-0.399	0.144	-0.323	-0.387	0.303	-0.032	-0.258	-0.354	0.026	0.268
CaCO3	-0.146	-0.179	0.015	0.021	-0.178	0.096	0.111	-0.262	-0.216	0.148	0.352	0.226	-0.127	-0.058	0.192	0.029	-0.054	-0.057	0.022	0.013	0.014	0.097	-0.027	-0.106	0.215	0.220	0.075	-0.147	0.042
Fe2O3_1	-0.095	0.472	0.175	-0.075	-0.038	0.284	-0.019	0.177	0.432	0.211	-0.221	-0.169	0.005	-0.201	-0.085	0.307	0.161	0.507	0.241	0.574	0.263	0.346	0.347	0.085	0.330	0.207	0.214	-0.532	0.314
K2O_1	0.097	0.066	0.255	0.132	-0.046	-0.322	0.042	-0.056	0.286	0.065	-0.192	-0.134	-0.037	-0.080	-0.008	0.134	-0.144	0.342	0.313	0.221	0.220	0.151	-0.383	-0.052	0.222	0.048	0.016	-0.166	0.136
MgO_1	-0.505	0.296	-0.270	-0.310	-0.139	0.170	0.147	0.417	0.337	0.129	-0.317	-0.421	-0.261	-0.086	0.021	0.026	-0.087	0.319	0.109	0.639	0.263	0.464	-0.136	0.254	0.098	0.098	-0.145	0.052	0.046
MnSO4_1	0.510	-0.307	0.169	0.532	0.451	-0.120	0.095	-0.387	-0.332	0.069	0.303	0.558	0.391	0.394	0.274	0.122	-0.020	-0.357	-0.108	-0.561	-0.317	-0.212	0.242	-0.459	-0.378	-0.294	0.204	0.084	0.084
Na2O_1	0.129	0.077	-0.312	-0.345	-0.181	-0.187	-0.038	-0.039	0.053	-0.237	-0.063	-0.133	0.371	-0.139	-0.317	-0.240	0.090	0.173	-0.154	0.329	0.271	0.556	-0.450	-0.134	-0.055	0.332	0.385	-0.020	-0.276
P2O5_1	-0.404	0.539	-0.086	-0.020	0.103	0.239	0.189	0.443	0.377	0.187	-0.313	-0.306	-0.172	0.165	0.223	0.235	0.177	0.342	0.240	0.497	0.471	-0.126	0.366	-0.181	0.301	-0.014	-0.061	-0.213	0.246
SiO2_1	0.289	-0.187	-0.079	-0.063	0.166	0.141	-0.108	0.096	-0.160	-0.209	0.048	0.148	0.174	0.033	-0.158	-0.233	0.065	-0.393	-0.345	-0.485	-0.359	-0.184	-0.398	0.279	-0.537	-0.267	-0.076	0.378	-0.235
TiO2_1	-0.166	0.333	-0.101	-0.209	-0.060	0.452	-0.069	0.151	0.114	0.114	-0.106	-0.105	0.034	-0.025	-0.127	0.128	0.212	0.165	-0.075	0.354	-0.025	0.165	0.217	0.099	0.073	0.168	0.213	-0.328	0.130
Al	0.170	0.353	0.074	-0.395	-0.259	0.461	-0.342	0.648	0.102	-0.135	-0.357	-0.384	-0.170	-0.407	-0.361	-0.162	0.354	0.076	0.041	-0.076	-0.006	0.111	-0.184	0.162	0.009	0.156	0.331	-0.131	-0.132
Ca	0.083	-0.159	-0.104	-0.140	-0.219	0.104	-0.136	-0.177	-0.430	-0.306	0.208	0.116	0.005	-0.188	-0.138	-0.331	0.288	-0.513	-0.377	-0.631	-0.349	-0.095	-0.528	-0.116	0.274	0.037	-0.012	0.338	-0.318
Fe	-0.038	0.533	0.180	-0.155	-0.132	0.393	-0.126	0.238	0.356	0.093	-0.269	-0.227	-0.013	-0.142	-0.194	0.244	0.356	0.386	0.150	0.370	0.182	0.216	0.153	0.066	0.252	0.224	0.240	-0.465	0.330
K	0.154	0.038	0.083	-0.018	-0.127	-0.171	-0.116	-0.041	-0.493	-0.200	-0.159	-0.139	0.020	-0.168	-0.172	-0.124	0.121	-0.072	-0.033	-0.239	-0.083	-0.166	-0.084	-0.095	-0.017	-0.018	-0.144	-0.121	-0.121
Mg	-0.281	0.234	-0.312	-0.401	-0.263	0.177	-0.080	0.379	0.015	-0.217	-0.323	-0.440	-0.202	-0.253	-0.204	-0.271	0.203	-0.102	-0.181	0.016	-0.052	-0.056	-0.010	-0.195	-0.068				