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Supplementary Table 1. Experimental versus predicted soil organic matter (SOM) values

No.	Experimental SOM	Training set					
		MLR	Ensemble	GPR	SVM	LSK	ANN
1	-0.2900	-0.2102	-0.2873	-0.2901	-0.3442	-0.3022	-0.3199
2	-0.1987	-0.2676	-0.2895	-0.2914	-0.2801	-0.2870	-0.3033
3	-0.2230	-0.2758	-0.2392	-0.2296	-0.2214	-0.2176	-0.2273
4	-0.1399	-0.2182	-0.2793	-0.2975	-0.3419	-0.3012	-0.3233
5	-0.1644	-0.2910	-0.2422	-0.2405	-0.2297	-0.2160	-0.2506
6	-0.3784	-0.3983	-0.3180	-0.3490	-0.3030	-0.2976	-0.3245
7	-0.3979	-0.2595	-0.2885	-0.3272	-0.2825	-0.2666	-0.2935
8	-0.2967	-0.3983	-0.3180	-0.3490	-0.3030	-0.2976	-0.3245
9	-0.4900	-0.5007	-0.3996	-0.4910	-0.4881	-0.3088	-0.4800
10	-0.5289	-0.2303	-0.3681	-0.3771	-0.3497	-0.2991	-0.3409
11	-0.3655	-0.2342	-0.3136	-0.3466	-0.3639	-0.2889	-0.3696
12	-0.2905	-0.3406	-0.3028	-0.3087	-0.2888	-0.2931	-0.3092
13	-0.1553	-0.1021	-0.1875	-0.1439	-0.1572	-0.1897	-0.2046
14	-0.3032	-0.1871	-0.2825	-0.2422	-0.3012	-0.2762	-0.2732
15	-0.2601	-0.1886	-0.2161	-0.1744	-0.1480	-0.1783	-0.1895
16	-0.0755	-0.0330	-0.1095	-0.1187	-0.0772	-0.1103	-0.1371
17	-0.2041	-0.1214	-0.2033	-0.2041	-0.2061	-0.2056	-0.2458
18	-0.2856	-0.0811	-0.2142	-0.1835	-0.2807	-0.2175	-0.2534
19	-0.1584	-0.1021	-0.1875	-0.1439	-0.1572	-0.1897	-0.2046
20	-0.2122	-0.0330	-0.1095	-0.1187	-0.0772	-0.1103	-0.1371
21	-0.1461	-0.1886	-0.2161	-0.1744	-0.1480	-0.1783	-0.1895
22	-0.2553	-0.4016	-0.3038	-0.2772	-0.2535	-0.2530	-0.2230
23	-0.3160	-0.3626	-0.3092	-0.3063	-0.3142	-0.3026	-0.3531
24	-0.2577	-0.3766	-0.2982	-0.2724	-0.2715	-0.2884	-0.2672
25	0.3372	0.2143	0.2564	0.2676	0.3393	0.2323	0.1628
26	0.1739	0.0895	0.1407	0.1251	0.0666	0.1087	0.1500
27	0.4685	0.1031	0.2671	0.2863	0.4095	0.2207	0.1855
28	0.0088	0.0960	0.1253	0.1018	0.0626	0.1042	0.1519
29	0.1079	0.2329	0.1911	0.1855	0.2241	0.1756	0.1554
30	0.1871	0.2538	0.2544	0.2419	0.1853	0.1536	0.1566
31	0.2518	0.0785	0.1417	0.1352	0.0578	0.1066	0.1465
32	0.3372	0.2439	0.2530	0.2429	0.2080	0.1676	0.1562
33	0.0555	0.0785	0.1417	0.1352	0.0578	0.1066	0.1465
34	0.0605	0.0960	0.1253	0.1018	0.0626	0.1042	0.1519
35	0.1487	0.0599	0.1554	0.1783	0.1512	0.1394	0.1408

Supplementary Table 1. Continued

No.	Experimental SOM	Test set					
		MLR	Ensemble	GPR	SVM	LSK	ANN
36	-0.2683	-0.1346	-0.2604	-0.2386	-0.3905	-0.2946	-0.3097
37	-0.2742	-0.1715	-0.2323	-0.3318	-0.4056	-0.2961	-0.3422
38	-0.1523	-0.1584	-0.2265	-0.3089	-0.3918	-0.2974	-0.3246
39	-0.3614	-0.1876	-0.2834	-0.2621	-0.3015	-0.2728	-0.2763
40	-0.4065	-0.3164	-0.3092	-0.4052	-0.3289	-0.2894	-0.4066
41	-0.2253	-0.2131	-0.2808	-0.2130	-0.2312	-0.2244	-0.2270
42	-0.1303	-0.0279	-0.1297	-0.0606	-0.0453	-0.0645	-0.1380
43	-0.1335	-0.2131	-0.2808	-0.2130	-0.2312	-0.2244	-0.2270
44	0.1805	0.0084	-0.0645	0.0388	-0.1399	-0.0322	0.0515
45	0.0223	0.1767	0.2493	0.2064	0.3863	0.2676	0.1628
46	0.1249	0.3450	0.2600	0.3547	-0.0342	-0.0446	0.1618
47	0.1612	0.1767	0.2493	0.2064	0.3863	0.2676	0.1628
48	-0.2355	-0.3522	-0.3053	-0.2441	-0.2153	-0.2558	-0.2392
49	-0.2833	-0.4046	-0.3238	-0.2764	-0.1942	-0.1569	-0.1891
50	-0.3997	-0.3515	-0.3031	-0.3430	-0.2927	-0.2939	-0.3815