

Supplementary File 3: Carbon, nitrogen and exchangeable element contents (Exch.) in the different aggregate size classes and in the <2 mm class at the two sites. For Ca and Mg, total element contents and ratios between exchangeable and total elements are also indicated. L.Q.= Limit of Quantification. Samples were collected in one pit per site; four replicates (one per pit face) were collected at each depth and pooled in the field.

Site	Depth cm	Sample	N %	C %	C:N	Exch. Al $\mu\text{g.g}^{-1}$	Exch. Fe $\mu\text{g.g}^{-1}$	Exch. K $\mu\text{g.g}^{-1}$	Exch. Mn $\mu\text{g.g}^{-1}$	Exch. Na $\mu\text{g.g}^{-1}$	Exch. Ca $\mu\text{g.g}^{-1}$	Total Ca $\mu\text{g.g}^{-1}$	Ca Exch :Tot	Exch. Mg $\mu\text{g.g}^{-1}$	Total Mg $\mu\text{g.g}^{-1}$	Mg Exch :Tot
Azerailles (AZ)	0-10	Ag. 200-2000 μm	0.21	3.3	15.7	1.0	1.4	100.8	281.4	1.6	463.3	1030	45.0	80.2	1748	4.6
		Ag. 50-200 μm	0.18	2.7	15.4	1.0	2.0	78.8	377.8	1.1	406.7	1657	24.5	73.1	1989	3.7
		Ag. <50 μm	0.19	2.3	12.0	0.7	1.6	135.3	186.6	12.7	486.7	1343	36.2	93.7	2677	3.5
		Soil <2 mm calculated	-	-	-	-	-	-	-	-	-	445.2	1276	34.9	82.8	2097
	10-20	Ag. 200-2000 μm	0.11	1.5	14.2	0.4	0.4	39.2	30.3	5.9	218.1	820	26.6	46.2	1732	2.7
		Ag. 50-200 μm	0.06	0.9	15.6	0.0	0.3	27.7	18.4	2.6	202.7	1444	14.0	43.0	1523	2.8
		Ag. <50 μm	0.10	1.0	10.3	0.0	0.3	64.3	21.0	6.4	523.3	1491	35.1	117.4	3111	3.8
		Soil <2 mm calculated	-	-	-	-	-	-	-	-	-	378.2	1290	29.3	83.6	2430
	30-45	Ag. 200-2000 μm	0.08	1.1	14.8	0.0	0.3	43.0	12.7	4.2	413.3	1023	40.4	91.8	2449	3.7
		Ag. 50-200 μm	0.04	0.5	13.7	0.3	0.3	25.5	9.3	1.5	279.7	1820	15.4	58.3	1893	3.1
		Ag. <50 μm	0.09	0.8	8.9	0.0	0.3	97.0	21.4	9.7	860.0	1411	60.9	190.7	1877	10.2
		Soil <2 mm calculated	-	-	-	-	-	-	-	-	-	588.7	1431	41.1	129.5	2021
100-120	Soil <2 mm measured	0.03	0.1	4.9	<L.Q.	0.3	110.8	3.9	14.5	736.7	832	88.5	260.1	3304	7.9	
Clermont en Argonne (CA)	0-10	Ag. 200-2000 μm	0.08	2.4	28.5	5.8	8.7	44.5	3.0	0.3	23.5	857	2.7	6.5	1100	0.6
		Ag. 50-200 μm	0.03	0.7	21.5	1.4	3.1	17.9	0.9	<L.Q.	7.8	724	1.1	2.3	608	0.4
		Ag. <50 μm	0.22	4.7	21.9	21.8	20.9	138.5	6.8	4.4	72.7	620	11.7	20.4	2297	0.9
		Soil <2 mm calculated	-	-	-	-	-	-	-	-	-	27.6	731	3.8	7.8	1144
	10-20	Ag. 200-2000 μm	0.07	2.7	37.5	5.5	1.6	36.6	9.7	0.6	10.5	907	1.2	3.7	1421	0.3
		Ag. 50-200 μm	0.04	0.6	16.0	1.1	0.6	19.8	28.5	<L.Q.	8.3	998	0.8	2.7	950	0.3
		Ag. <50 μm	0.18	3.3	18.3	40.0	5.7	147.5	34.7	6.2	45.0	365	12.3	16.3	2077	0.8
		Soil <2 mm calculated	-	-	-	-	-	-	-	-	-	15.7	864	1.8	5.5	1223
	30-45	Ag. 200-2000 μm	0.04	0.4	10.3	6.4	0.3	104.7	2.6	4.5	119.0	691	17.2	32.5	4152	0.8
		Ag. 50-200 μm	0.02	0.2	11.0	0.3	0.1	20.0	0.5	<L.Q.	15.3	734	2.1	5.9	1312	0.4
		Ag. <50 μm	0.06	0.5	9.2	10.5	0.5	140.3	3.0	7.7	99.3	809	12.3	38.8	3922	1.0
		Soil <2 mm calculated	-	-	-	-	-	-	-	-	-	69.0	756	9.1	24.3	2909
100-120	Soil <2 mm measured	0.02	0.1	2.8	0.3	0.3	178.3	0.2	30.4	886.7	1034	85.8	257.1	4436	5.8	