

Supplementary materials



Figure 1S: Images showing field cells construction and amendments mixing with oxidized tailing

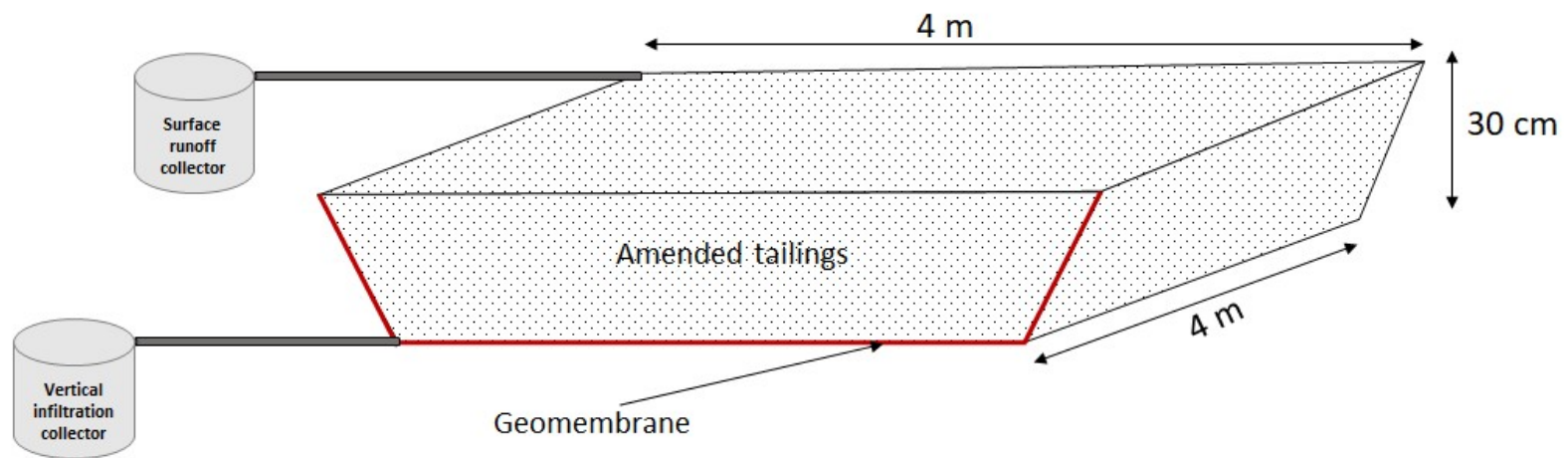


Figure 2S: Schematic representation of the cells constructed in the TSF (image not to scale)

Table 1S: Summary of chemical concentrations of the leachates from the different cells (≤LD means that the concentration was inferior to the detection limit of ICP-AES)

			Chemical concentrations (ppm)															
			pH	Eh (mV)	EC (mS/cm)	Al	As	Ca	Cr	Cu	Fe	Mg	Mn	Ni	Pb	S	Sr	Zn
Detection limits (mg/L)			-	-	-	0.01	0.06	0.03	0.003	0.003	0.006	0.001	0.002	0.004	0.02	0.09	-	0.005
Reference cell	Vertical infiltration	Min	1.7	380	8.8	0.65	0.06	308	0.25	0.01	66.6	2410	502	0.20	0.07	4180	6.2	0.2
		Max	4.3	630	33.2	67.90	0.76	421	1.43	3.92	4260	5990	3090	3.09	0.39	14800	14.7	111
		Average	3.0	507	14.3	15.72	0.28	379.6	0.70	0.93	1034.5	3756.3	1421	1.01	0.18	7523	9.9	17.6
	Surface runoff	Min	3.0	270	1.2	0.09	≤LD	228	0.01	0.01	0.1	15.7	10.9	0.02	0.02	308	0.6	0.1
		Max	4.3	650	4.8	3.85	≤LD	461	0.04	0.72	240	277	56.2	0.14	0.06	814	2.4	0.5
		Average	3.6	483	2.2	0.76	≤LD	357.4	0.02	0.27	37.2	66.4	26.7	0.05	0.04	501	1.4	0.2
C2	Vertical infiltration	Min	6.7	253	5.3	0.05	0.08	391	0.01	0.01	0.0	1170	14.2	0.01	0.03	1980	1.4	0.0
		Max	8.4	592	19.6	0.11	0.40	508	0.06	0.14	0.6	2510	150	0.05	0.03	4040	2.3	6.2
		Average	7.2	416	8.1	0.07	0.29	440.1	0.03	0.06	0.2	1790	44.8	0.03	0.03	2838	1.9	1.4
	Surface runoff	Min	5.2	426	1.1	0.01	≤LD	334	0.01	≤LD	0.0	26.0	0.1	0.01	≤LD	414	0.7	0.0
		Max	8.3	788	3.7	0.48	≤LD	521	0.05	≤LD	13.7	689	68.7	0.11	≤LD	941	1.9	0.2
		Average	6.8	534	2.1	0.15	≤LD	403.8	0.02	≤LD	1.8	153.3	13.3	0.02	≤LD	570	1.2	0.1
C3	Vertical infiltration	Min	7.1	304	6.5	0.01	0.06	369	0.01	0.00	0.1	78.8	1.2	0.01	0.04	576	1.3	0.0
		Max	8.1	584	11.9	0.14	0.41	477	0.09	0.01	0.5	3320	129	0.05	0.06	4480	1.9	0.4
		Average	7.5	413	8.9	0.09	0.20	430.9	0.05	0.009	0.2	2151.3	43.5	0.02	0.05	3289	1.5	0.2
	Surface runoff	Min	6.8	398	1.4	0.01	LD	343	0.01	0.003	0.02	29.9	0.0	0.01	≤LD	394	0.6	0.0
		Max	8.7	802	4.3	0.18	LD	539	0.01	0.018	2.1	176.0	9.1	0.02	≤LD	689	1.6	0.2
		Average	7.5	545	2.2	0.07	LD	444.4	0.01	0.011	0.3	79.3	2.5	0.01	≤LD	533	1.1	0.1
C4	Vertical infiltration	Min	6.6	276	1.5	0.01	≤LD	470	0.00	0.007	0.0	13.5	0.1	0.01	≤LD	556	4.3	0.0
		Max	8.6	797	6.8	0.05	≤LD	614	0.00	0.007	0.1	99.9	6.3	0.02	≤LD	827	8.6	0.5
		Average	7.2	519	3.3	0.03	≤LD	548.5	0.00	0.007	0.1	39.1	1.4	0.01	≤LD	707	6.5	0.2
C5	Vertical infiltration	Min	8.8	324	2.7	0.03	≤LD	442	0.11	0.005	0.05	1.1	0.01	0.09	≤LD	761	6.7	0.0
		Max	10.3	776	4.9	1.68	≤LD	597	0.11	0.280	0.6	11.3	5.5	0.28	0.03	1350	11.7	2.3
		Average	9.5	522	3.6	0.45	≤LD	502.5	0.05	0.109	0.2	3.4	0.7	0.16	0.03	890	8.6	0.4

	Surface runoff	Min	7.0	295	0.4	0.02	≤LD	86.3	0.00	0.003	0.01	5.6	0.2	0.01	≤LD	102	0.4	0.02
		Max	7.9	375	2.8	0.05	≤LD	710	0.01	0.032	0.13	63.2	13.5	0.03	≤LD	773	3.5	0.5
		Average	7.3	337	1.5	0.03	≤LD	344.8	0.00	0.011	0.05	27.4	3.5	0.02	≤LD	392	2.0	0.2

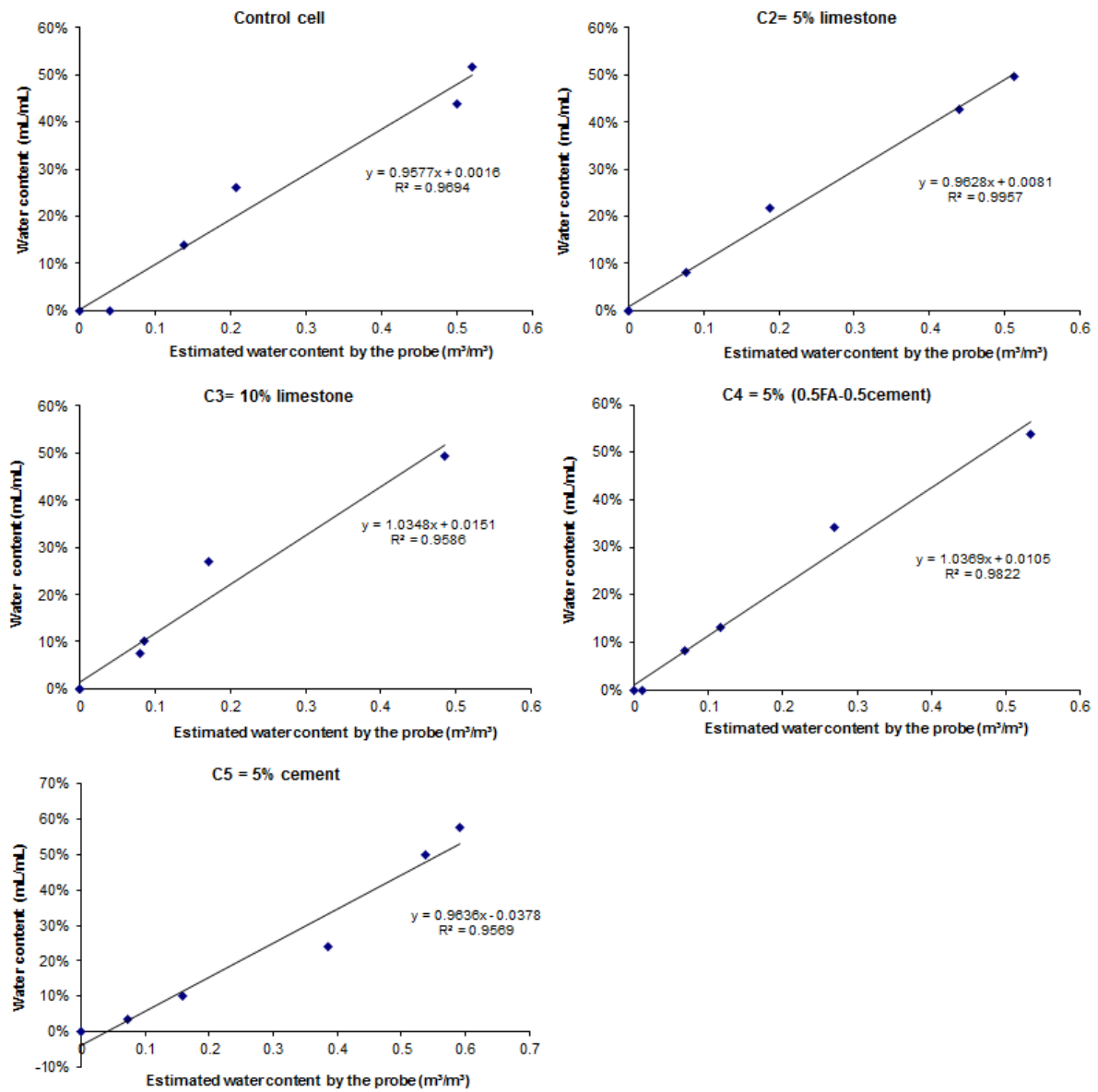


Figure 3S: Calibration curves of the volumic water content probes

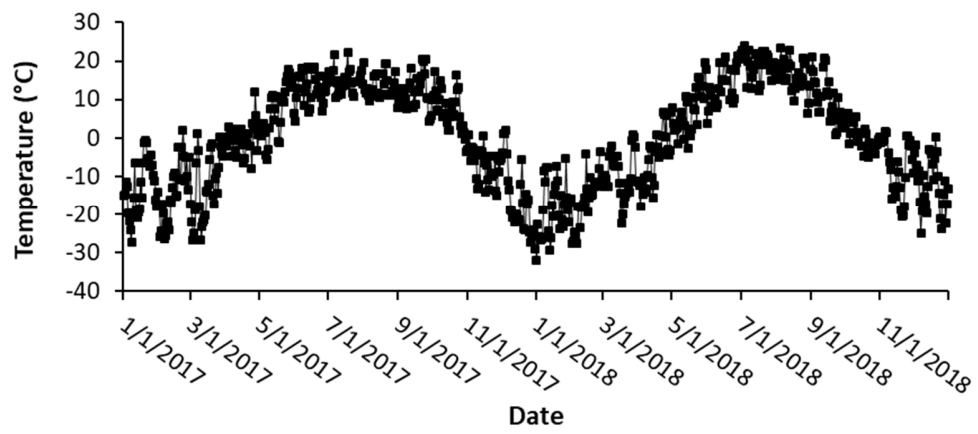


Figure 4S: average daily temperature