

**Table S1.** Chemical composition of groundwaters

<b>Supplementary Materials</b>		<b>GW11028</b>	<b>GW5028</b>	<b>GW979</b>
<b>NH<sub>4</sub></b>	mg/L	0.49	0.48	0.79
<b>NO<sub>2</sub><sup>-</sup></b>	mg/L	<0.010	<0.010	<0.010
<b>NO<sub>3</sub></b>	mg/L	<0.020	<0,020	<0.020
<b>TOC*</b>	mg/L	6.2	5.8	5
<b>Al</b>	mg/L	<0.010	<0.010	<0.010
<b>As</b>	µg/L	0.19	0.76	2.9
<b>Ba</b>	mg/L	0.089	0.025	0.11
<b>Pb</b>	µg/L	3.6	0.15	0.31
<b>Ca</b>	mg/L	66	58	39
<b>Fe</b>	mg/L	3	6.5	4.7
<b>Cu</b>	µg/L	<0.20	<0.20	<0.20
<b>Mn</b>	mg/L	0.59	0.85	0.4
<b>Mo</b>	µg/L	0.25	0.23	0.16
<b>P</b>	mg/L	0.52	0.42	0.7
<b>Zn</b>	µg/L	13	26	10
<b>Fe/P</b>		5.77	15.5	6.71

\* Total organic carbon

**Table S2.** Chemical composition of sediments (n.d. = not determined; b.d. = below detection)

Sample	SiO <sub>2</sub>	Al	Fe	Mn	Mg	Ca	K	Ti	P	La
	wt%	(g/kg)	(g/kg)	(g/kg)	(g/kg)	(g/kg)	(g/kg)	(g/kg)	(g/kg)	ug/g
E2 0_2	45.9	61.5	24.4	1.36	5.26	86.1	9.02	2.88	3.79	8370
E2 2_3	48.6	65.3	24.3	1.31	6.11	79.5	8.85	3.02	4.24	13050
E2 3_4	51.8	70.3	27.1	1.28	6.00	67.6	11.3	3.63	3.58	n.d.
E2 4_5	55.2	71.1	27.4	1.25	5.14	56.2	13.2	4.05	2.66	4543
E2 5_6	55.0	72.3	30.4	1.55	4.43	54.2	15.2	4.56	2.40	414
E2 6_7	56.8	74.8	31.0	1.50	4.61	46.6	16.1	4.80	2.21	175
E2 7_8	61.3	85.9	31.7	1.19	5.98	26.4	19.7	5.93	1.70	100
E2 8_9	66.5	85.5	27.5	1.00	5.71	16.0	20.4	6.40	1.46	86.2
E2 9_10	67.1	86.3	28.1	0.94	5.91	12.9	20.9	6.69	1.37	62.5
E2 10_12	67.5	85.3	27.5	0.89	5.81	12.1	20.6	6.62	1.31	62.7
E2 12_14	65.4	87.4	30.5	0.94	6.06	12.4	21.1	6.74	1.43	59.7
E2 14_16	64.0	90.8	36.0	1.09	6.56	13.7	20.3	6.48	1.78	77.1
E2 16_18	59.9	91.9	38.9	1.17	6.72	14.7	19.2	6.22	1.85	57.4
E2 18_20	58.7	93.3	41.4	1.12	6.82	15.2	18.8	6.21	1.77	57.8
E2 20_23	58.2	95.3	41.5	1.05	7.05	16.1	19.1	6.27	1.57	59.2
E2 23_26	58.7	95.0	41.6	1.04	7.01	15.7	19.4	6.39	1.58	62.0
E2 26_29	58.4	96.8	41.7	0.99	6.95	14.4	18.9	6.30	1.51	55.6
E2 29_32	60.1	99.4	38.3	0.82	6.62	12.8	18.5	6.14	0.99	53.0
E2 32_35	59.4	95.5	39.3	0.93	6.78	14.5	18.4	6.18	1.33	57.9
E2 35_40	59.1	99.4	38.3	0.82	6.70	13.4	18.3	6.31	1.03	58.3
E2 40_45	59.9	98.2	37.0	0.77	6.41	12.8	18.1	6.27	0.87	58.3
E3 surface	58.9	76.6	28.4	1.12	5.80	40.1	14.1	4.22	2.83	5821
E3 0_2	60.2	69.9	24.5	1.10	5.12	44.8	12.4	3.59	2.98	6329
E3 2_4	57.7	77.4	29.1	1.09	5.62	41.7	14.1	4.32	2.59	5069

E3 4_6	56.1	74.4	28.4	1.16	5.94	49.4	13.0	3.99	3.24	7160
E3 6_8	62.6	73.8	26.6	1.10	5.18	36.9	14.1	4.06	2.55	4479
E3 8_10	62.7	79.2	29.0	1.11	5.38	25.6	16.0	4.66	2.20	2624
E3 10_12	64.3	82.5	31.9	1.16	5.42	18.0	17.7	5.17	1.89	115
E3 12_14	61.9	90.6	38.2	1.21	6.40	15.0	19.9	5.88	1.93	107
E3 14_16	61.7	91.4	38.8	1.18	6.41	15.2	20.0	5.98	1.88	100
E3 16_18	60.7	95.6	40.7	1.15	6.90	15.6	20.1	6.24	1.87	112
E3 18_20	59.4	97.3	42.9	1.16	7.05	16.0	20.0	6.38	1.81	109
E3 20_22	58.0	97.7	43.3	1.08	7.04	16.9	19.7	6.32	1.66	106
E3 22_24	58.1	97.7	42.6	0.99	7.01	17.3	19.5	6.29	1.48	102
E3 24_26	58.1	98.0	42.7	0.98	7.03	16.7	19.4	6.30	1.50	95.8
E3 26_28	57.6	98.5	43.0	0.97	7.14	16.2	19.3	6.39	1.49	90.3
E3 28_30	58.0	97.8	42.2	0.98	7.10	15.8	19.2	6.37	1.48	75.2
E3 30_34	57.0	99.0	43.8	1.01	7.30	15.5	19.3	6.48	1.53	68.6
E3 34_38	57.7	97.2	42.0	1.00	7.08	15.4	18.5	6.23	1.59	66.3
E3 38_42	58.4	101.3	43.3	0.94	7.08	13.7	19.2	6.44	1.35	57.8
E3 42_46	59.4	103.0	39.1	0.78	6.75	12.7	19.1	6.43	0.96	59.8
E3 46_50	59.0	103.2	38.5	0.74	6.59	12.7	18.7	6.57	0.82	60.1
E3 50_54	58.7	101.8	37.0	0.72	6.36	12.6	18.0	6.45	0.69	60.4
E3 54_58	59.1	102.3	36.7	0.72	6.33	12.6	18.1	6.43	0.73	57.6
E3 58_62	59.6	101.3	35.7	0.74	6.33	12.6	18.0	6.12	0.75	49.6
E3 62_65,5	62.3	94.4	34.1	0.86	6.21	13.4	18.9	5.49	1.19	17.4
E3 65,5_68	90.1	39.7	b.d.	0.53	b.d.	7.1	8.3	1.05	0.41	n.d.
E4 0_2	62.3	59.4	15.3	1.05	3.30	53.3	12.0	3.35	1.75	3537