

SUPPLEMENTARY MATERIAL TO
**Heavy metals in Neogene sedimentary rocks as a potential
geogenic hazard for sediment, soil, and surface and groundwater
contamination (eastern Posavina and the Lopare Basin,
Bosnia and Herzegovina)**

NENAD GRBA^{1,2}, FRANZ NEUBAUER², ALEKSANDRA ŠAJNOVIĆ^{3*#},
KSENIJA STOJANOVIĆ^{1#} and BRANIMIR JOVANČIĆEVIĆ^{1#}

¹University of Belgrade, Faculty of Chemistry, Studentski trg 12–16, 11000 Belgrade, Serbia

²Paris Lodron University of Salzburg, Department of Geography and Geology,
Hellbrunnerstrasse 34, 5020 Salzburg, Austria and ³University of Belgrade, Center of
Chemistry, ICTM, Njegoševa 12, 11000 Belgrade, Serbia

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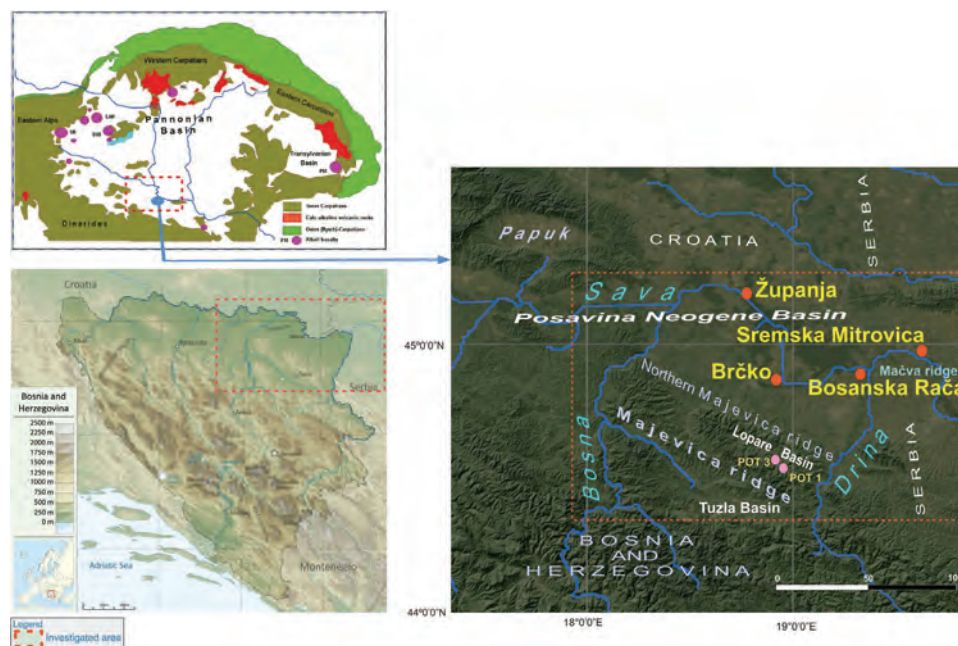


Fig. S-1. Map of Bosnia and Herzegovina and locations of the Lopare Basin and four sampling sites along the Sava River (Županja, Brčko, Bosanska Rača and Sremska Mitrovica).

* Corresponding author. E-mail: sajnovica@bg.ac.rs

TABLE S-I. List of sediment samples from the Lopare Basin with contents of heavy metals (mg kg⁻¹)

Borehole	Sample No.	Depth m	Lithology	Pb	Zn	Cu	Ni	Cr	Cd	As	Hg
POT 1	1 ^a	11.85	Sandy clay	200.8	96.3	30.7	151.3	207.7	1.86	18.2	0.00
	2	18.55	Marlstone	186.9	70.0	38.5	149.8	198.6	1.17	0.8	0.00
	3	23.85	Marlstone	140.5	63.3	32.8	188.8	211.5	0.98	3.5	0.00
	4	31.45	Marlstone	165.9	64.5	34.1	225.3	234.7	0.87	1.7	0.00
	5	43.65	Marlstone	178.5	69.1	41.0	151.0	199.2	0.47	0.0	0.00
	6	49.65	Marlstone	192.6	59.5	31.4	143.9	179.4	6.08	183.1	0.00
	7	52.45	Marlstone	117.8	20.3	13.8	39.5	51.2	1.46	3.2	2.52
	8	62.55	Marlstone	158.3	52.4	35.6	164.8	186.0	0.91	6.8	0.92
	9	68.55	Marlstone	169.8	44.7	33.5	175.5	182.3	1.04	18.9	0.48
	10	76.75	Marlstone	144.7	40.0	37.2	140.0	162.5	0.87	2.1	0.28
	11	90.35	Marlstone	120.7	33.4	33.4	134.4	141.9	0.80	3.7	0.46
	12	99.65	Marlstone	166.5	38.6	36.1	179.6	177.9	1.22	8.4	0.58
	13	113.45	Marlstone	161.3	39.0	34.4	183.0	198.4	1.23	12.3	0.37
	14	119.4	Marlstone	146.9	37.5	29.5	90.8	121.2	2.30	95.6	0.45
	15	132.55	Marlstone	234.8	50.6	22.4	158.0	176.0	1.48	44.3	0.19
	16	141.55	Marlstone	145.1	32.3	34.0	163.6	172.6	0.99	8.8	0.39
	17	150.9	Marlstone	105.5	21.8	20.8	88.3	98.8	0.74	8.2	0.69
	18	171.5	Marly sandstone	108.1	24.7	27.1	69.5	93.1	0.50	19.5	0.49
	19	193.1	Marly sandstone	116.3	9.6	10.8	21.3	68.9	1.32	45.9	0.44
POT 1 mean values				153.3	42.9	30.4	137.1	158.6	1.36	25.9	0.46
POT 3	20	27.8	Marlstone	255.0	107.8	27.5	173.6	261.3	1.62	103.3	1.12
	21	43.25	Marlstone	77.4	94.1	30.2	147.6	247.1	0.01	6.0	1.02
	22	59.35	Marlstone	262.6	85.5	30.2	170.5	258.6	0.17	12.9	0.96
	23	73.4	Marlstone	129.3	46.4	24.5	125.0	141.8	0.25	5.7	0.03
	24	85.15	Marlstone	161.4	78.2	37.9	161.5	210.9	0.00	1.8	0.00
	25	92.15	Marlstone	162.0	67.5	38.7	153.3	190.3	0.07	7.3	0.33
	26	106.65	Marlstone	211.7	89.1	36.8	243.9	280.2	0.00	5.5	0.23
	27	119.5	Marlstone	211.3	95.9	28.3	170.7	222.9	0.11	28.0	0.42
	28	130.85	Marlstone	177.3	73.1	34.8	156.6	193.8	0.10	10.9	0.00
	29	139.65	Marlstone	168.3	58.7	28.8	263.2	219.5	0.14	16.8	0.00
	30	149.75	Dolomitic marlstone	207.4	75.3	39.2	197.3	200.0	0.13	0.0	0.14
	31	160.5	Marlstone	205.5	83.0	37.4	160.3	219.6	0.01	29.5	0.48
	32	164.6	Marlstone	141.3	60.7	33.8	154.4	176.5	0.00	2.3	1.71
	33	177.75	Marlstone	125.7	58.9	30.1	198.5	175.5	0.00	3.3	2.03
	34	186.75	Marlstone	157.1	67.1	31.1	182.2	221.5	0.41	0.1	2.66
	35	196.35	Marlstone	141.6	57.0	37.9	140.6	205.9	1.55	10.6	5.65
	36	208.95	Marlstone	189.5	72.6	44.5	198.7	231.5	1.37	0.0	2.03
	37	224.5	Marlstone	162.1	63.5	35.0	181.0	215.9	1.44	0.0	1.27
	38	228.65	Marlstone	171.8	63.6	35.8	223.4	238.0	1.59	7.4	0.36
	39	253.25	Marlstone	160.3	50.7	21.2	132.3	163.9	2.33	27.8	0.23
	40	273.5	Siltstone	238.5	92.8	39.6	232.1	276.2	4.94	111.2	0.00
	41	274.55	Marlstone	224.6	84.5	29.3	219.9	245.6	5.16	116.2	0.00
	42	290.5	Marlstone	146.6	57.1	27.2	158.6	173.6	2.81	43.5	0.00

TABLE S-I. Continued

Borehole	Sample No.	Depth m	Lithology	Pb	Zn	Cu	Ni	Cr	Cd	As	Hg
POT 3	43	304.95	Marlstone	141.3	54.1	29.4	175.1	192.8	1.04	2.6	0.00
	44	318.45	Marlstone	150.4	49.8	28.8	241.5	233.7	1.19	9.0	0.00
	45	331.65	Marlstone	138.1	55.5	30.2	172.1	189.4	2.53	39.9	0.00
	43	343.75	Siltstone/Marlstone	143.2	52.4	35.9	199.3	205.7	1.62	15.5	0.51
POT 3 mean values				172.6	70.2	32.7	182.7	214.5	1.13	22.9	0.78

^aSample was used for the calculation of the Chemical Proxy of Alteration, *CPA*, value