



Supplement of

Towards a quantitative lithostratigraphy of Pleistocene glaciofluvial deposits in the southern Upper Rhine Graben

Lukas Gegg et al.

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L. Gegg et al.: Quantitative lithostratigraphy of Pleistocene glaciofluvial deposits

Table S1: Properties of gravel samples from Elzwiesen boreholes ELZ-a/-b/-c.

sample (depth in m)	number of clasts n_{tot}	number of limestones n_{lst}	Morphometrics					Petrographic composition																			
			D_{50} [mm]	D_{90} [mm]	C40	RWR	RA	dark grey limestone	light grey limestone	yellow limestone	dolostone	sandstone, generic	conglomerate, generic	Verrucano	Taveyannaz sandstone	radiolarite	chert	white granite	green granite	red granite	aplite	quartzite	gneiss	amphibolite	cataclasite	volcanic, undiff.	vein quartz
ELZ-a 3-4	110	40	12.5	48.5	43%	43%	3%	13%	15%	8%	-	6%	1%	-	1%	15%	5%	5%	-	7%	-	5%	5%	1%	-	5%	8%
ELZ-a 6-7	120	40	10.5	48.5	58%	50%	3%	23%	5%	5%	-	3%	-	-	1%	18%	6%	4%	1%	4%	-	5%	7%	-	-	1%	17%
ELZ-a 9-10	104	35	10.5	43.5	63%	49%	3%	20%	10%	4%	-	6%	-	-	-	6%	5%	12%	1%	6%	-	9%	10%	-	-	2%	12%
ELZ-a 12-13	126	45	13.0	54.0	62%	44%	-	20%	11%	5%	-	6%	-	-	-	21%	2%	3%	1%	2%	-	10%	7%	1%	1%	2%	9%
ELZ-a 16-17	116	43	10.0	50.5	47%	51%	5%	21%	10%	6%	-	7%	-	-	1%	8%	3%	6%	-	3%	-	14%	7%	2%	-	2%	11%
ELZ-a 19-20	114	28	19.0	62.0	50%	25%	-	11%	8%	6%	-	10%	-	-	2%	15%	7%	4%	-	1%	-	22%	4%	1%	-	-	11%
ELZ-a 24-25	75	23	13.5	69.0	65%	30%	-	7%	20%	4%	-	5%	-	-	-	13%	1%	5%	1%	-	-	19%	9%	1%	-	3%	11%
ELZ-a 27-28	108	24	13.5	54.5	92%	42%	8%	7%	11%	4%	-	6%	-	-	1%	14%	3%	4%	1%	4%	-	21%	7%	-	-	2%	15%
ELZ-a 31-32	115	26	14.0	50.5	54%	31%	12%	3%	12%	7%	-	7%	-	-	-	10%	7%	3%	1%	-	-	26%	5%	1%	1%	2%	15%
ELZ-a 34-35	109	27	9.0	52.0	67%	44%	4%	5%	14%	6%	-	6%	-	-	-	17%	9%	9%	-	1%	-	14%	6%	2%	-	-	11%
ELZ-a 38-39	149	43	24.0	58.5	53%	33%	12%	10%	13%	5%	-	9%	-	-	1%	11%	5%	4%	1%	-	-	19%	6%	1%	-	-	14%
ELZ-b 2-3	88	28	17.0	43.0	61%	39%	7%	11%	14%	7%	1%	10%	-	-	2%	11%	6%	2%	-	5%	-	9%	7%	8%	-	-	7%
ELZ-b 7-8	144	35	15.0	56.0	66%	60%	6%	13%	8%	3%	-	8%	1%	-	-	11%	6%	4%	-	9%	-	14%	10%	3%	-	3%	7%
ELZ-b 11-12	65	11	8.0	27.0	18%	27%	9%	14%	3%	-	-	2%	-	-	-	23%	5%	9%	-	5%	2%	11%	12%	5%	-	-	11%
ELZ-b 16-17	122	36	11.0	50.0	42%	47%	14%	13%	13%	3%	-	7%	-	-	-	11%	3%	4%	-	2%	-	18%	9%	3%	-	2%	11%
ELZ-b 18-19	94	32	7.0	45.0	59%	25%	9%	15%	10%	10%	-	11%	-	-	-	13%	3%	2%	-	-	-	11%	6%	5%	-	-	15%
ELZ-b 21-22	135	35	10.0	47.0	66%	31%	9%	9%	10%	7%	-	10%	-	-	-	13%	2%	4%	-	1%	-	16%	9%	2%	-	1%	16%
ELZ-b 24-25	162	40	10.0	58.0	55%	48%	10%	9%	12%	5%	-	11%	1%	-	-	10%	7%	2%	-	3%	-	14%	7%	4%	1%	1%	14%
ELZ-b 28-29	162	51	11.0	49.0	45%	20%	16%	6%	16%	9%	-	12%	1%	1%	1%	13%	6%	6%	1%	1%	-	10%	2%	2%	-	1%	14%
ELZ-b 34-35	144	35	11.0	49.0	66%	46%	3%	5%	13%	6%	-	9%	-	1%	-	15%	5%	6%	1%	1%	-	10%	4%	3%	-	1%	21%
ELZ-b 39-40	88	27	9.0	40.0	74%	44%	7%	6%	17%	10%	-	9%	-	-	-	17%	6%	7%	-	-	1%	9%	7%	1%	-	-	10%
ELZ-b 42-43	122	42	21.0	84.0	62%	31%	10%	7%	20%	8%	-	18%	1%	-	2%	11%	4%	7%	-	2%	-	7%	5%	1%	1%	-	7%
ELZ-b 49-50	172	53	20.0	54.0	53%	45%	2%	9%	13%	9%	-	11%	-	-	-	12%	1%	6%	-	1%	-	18%	7%	-	-	1%	13%

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Table S1 (continued): Properties of gravel samples from Elzwiesen boreholes ELZ-a/-b/-c. Orange shaded cells: lithofacies B / Breisgau Fm.

sample (depth in m)	number of clasts n_{tot}	number of limestones n_{lst}	Morphometrics					Petrographic composition																			
			D ₅₀ [mm]	D ₉₀ [mm]	C40	RWR	RA	dark grey limestone	light grey limestone	yellow limestone	dolostone	Sandstone, generic	conglomerate, generic	Verrucano	Taveyannaz sandstone	radiolarite	chert	white granite	green granite	red granite	aplite	quartzite	gneiss	amphibolite	cataclasite	volcanic	vein quartz
ELZ-b 54-55	136	27	19.0	59.0	44%	44%	4%	4%	7%	9%	-	11%	1%	-	-	14%	13%	9%	-	1%	-	13%	5%	-	1%	1%	13%
ELZ-b 56-57	87	17	8.0	52.0	82%	47%	-	6%	13%	1%	-	11%	-	-	-	11%	8%	7%	-	3%	-	8%	8%	2%	-	2%	18%
ELZ-b 58-59	101	37	8.0	41.0	35%	35%	-	5%	16%	16%	-	5%	-	-	-	11%	8%	5%	-	-	-	14%	5%	2%	-	-	14%
ELZ-b 60-61	128	35	10.0	47.0	46%	40%	11%	6%	12%	9%	-	10%	-	-	-	9%	5%	4%	-	5%	-	13%	6%	1%	-	2%	17%
ELZ-c 3-4	107	35	16.5	67.5	54%	31%	3%	11%	15%	7%	-	7%	-	-	-	13%	7%	7%	-	5%	-	10%	6%	1%	-	2%	10%
ELZ-c 8-9	130	40	16.0	54.0	68%	45%	-	17%	10%	4%	-	11%	-	1%	-	13%	4%	7%	-	6%	-	4%	13%	1%	1%	2%	9%
ELZ-c 12-13	139	33	14.5	47.5	55%	39%	3%	13%	7%	4%	-	11%	-	1%	-	17%	2%	3%	1%	4%	-	10%	7%	2%	1%	1%	17%
ELZ-c 16-17	130	35	16.0	53.6	66%	37%	3%	12%	12%	5%	-	5%	1%	-	-	12%	5%	6%	-	2%	1%	11%	7%	1%	-	2%	18%
ELZ-c 19-20	69	17	52.0	103.5	53%	47%	-	3%	16%	6%	-	6%	-	-	-	6%	3%	1%	-	1%	-	33%	10%	1%	-	3%	9%
ELZ-c 24-25	145	39	17.0	52.5	67%	36%	3%	8%	13%	6%	-	17%	-	-	-	9%	6%	1%	-	3%	-	11%	8%	2%	-	1%	15%
ELZ-c 26-27	123	38	18.0	58.0	66%	47%	5%	13%	13%	5%	-	5%	-	1%	2%	12%	5%	4%	-	6%	-	15%	7%	-	-	2%	12%
ELZ-c 28-29	122	34	12.5	45.5	53%	47%	-	8%	12%	7%	-	8%	-	-	-	14%	4%	7%	-	4%	-	16%	5%	1%	-	-	13%
ELZ-c 34-35	117	29	24.5	61.5	62%	52%	-	4%	13%	9%	-	7%	1%	-	1%	18%	4%	7%	-	2%	-	13%	4%	1%	1%	1%	15%
ELZ-c 38-39	106	25	19.0	84.5	52%	56%	8%	6%	12%	5%	-	8%	-	-	1%	23%	4%	4%	-	2%	-	8%	5%	2%	-	-	23%