APPENDIX 1

Log of the Mizerna-Nowa borehole

Depth [m]	Lithology	Facies	Bed
0.0–0.6	silt, yellow-brownish	soil	
0.6–1.0	silt, sandy and clayey sand, yellow-grey, with fine fragments of Magura-type sandstone	river terrace (Pleistocene)	
1.0–1.6	sand, medium-grained clayey, brownish-grey	river terrace (Pleistocene)	
Mizerna complex (beds no. 1–49)			
1.6 –2.1	sand, strongly clayey, greenish-blue, with fine fragments of Magura-type sandstone	Fs	49
2.1–2.4	sand, fine-grained, strongly clayey, greenish with yellowish hue, with fragments of strongly weathered Magura-type sandstone	Fs	48
2.4–3.2	gravel (a) consisting of Magura-type yellowish-green fragments (∅ = 0.5–4 cm) in clayey-sandy matrix	Fg+s	47
3.2–3.9	clay, silty, grey with yellowish hue, with fine coalified plant remains	Lc+p	46
3.9–4.5	gravel (sr, r + a, sa) consiting of Magura-type greenish, weathered sandstone (∅ = 0.5–0.7 cm), probably with thin intercalations of sand and clay	Fg	45
4.5–5.6	clay, silty, grey-greenish, with a 10-cm thick intercalation of gravel (fragments – a, sa, Magura-type sandstone, ∅ = 1–3 cm); plant remains	Lc+p (Fsch)	44
5.6–5.9	clay, silty, grey, with plant remains	Lc+p	43
5.9–6.1	gravel (a; ∅ = 1–2 cm), clayey, consisting of green Magura-type sandstone fragments	Fg	42
6.1–7.4	clay, strongly sandy or silty, brownish-grey, with streaks of brown plant detritus, with conifer cones and flattened lignites	Lc+p	41
7.4–7.5	gravel (a; ∅ =1–3 cm) consisting of fine-grained sandstone fragments in greenish clayey matrix	Fg	40
7.5–7.75	clay, sandy, grey, with several brownish streaks, with plant remains	Lc+p	39
7.75–7.9	clay, sandy, grey and grey-brownish with scattered fragments of green fine-grained sandstone	Lc+p	38
7.9–9.4	gravel (∅ = 0.3–1 cm), clayey, and gravelly clay consisting of fragments of greenish and bluish fine-grained sandstone	Fg	37
9.4–11.0	gravel (a, sr; ∅ = 0.3–5 cm), clayey, consisting of fragments of greenish and yellowish fine-grained sandstone, copious greenish matrix	Fg: S?	36
11.0–11.15	clay, sandy or silty, greenish-grey to grey-brownish; single fragments of green fine-grained sandstone (∅ = 1–3 cm)	Lc	35
11.15–11.75	clay, slightly sandy or silty, grey-brownish, rich in brown plant remains	Lc+p	34
11.75–12.05	clay, as above, brown, very rich in plant remains, including lignites; fragments of sandstone (∅ = 1–3 cm)	Lc+p	33
12.05–12.6	clay, strongly sandy, brownish-grey or brown, with very frequent fragments of fine-grained sandstone (∅ = 0.1–0.4 cm); rich in plant remains	Lc+p	32
12.6–13.7	sand, medium to coarse, clayey, grey to yellowish and greenish, with fine fragments of greenish sandstones and coarse grains of quartz (a; ∅ = 0.1–0.4 cm): Tatra Mts. material (Dunajec River sediment)?	Fs	31
13.7–14.0	clay, sandy, grey, rich in sandstone fragments (as 12.3–12.6 m; ∅ = 0.1–0.5 cm), passing to clayey gravel	Lc/Fg: S?	30
14.0–14.8	Sand, medium and coarse (mainly), grey, rich in greenish, fine-grained sandstone and shale fragments (a)	Fs	29
14.8–16.0	clay, sandy and gravelly, grey, grey-brownish, rich in fragments of fine-grained sandstone and shale (a) in upper part; more clayey lower down	Lc+s+g+p	28
16.0–17.5	clay, strongly sandy, passing into fine gravel, clayey (in upper part), grey; numerous fragments of coalified plants; in lower part, large lignite fragments set at 70 degrees with respect to borehole axis: evidence of subaqueous slumping	Lc+s+g+p S	27
17.5–18.2	sand, medium to coarse, clayey, grey, with scattered fragments of fine-grained sandstone and shale (a; ∅ = 0.1–0.5 cm)	Fs	26
18.2–19.0	clay, grey, in lower part with intercalations of sandstone fragments(fine-grained or Magura-type; a); plant remains	Lc+p	25
19.0–19.8	Sand, medium to coarse, grey, with fragments (a; ∅ = 0.1–1 cm) of greenish, fine-grained sandstone	Fs	24
19.8–21.2	clay, strongly sandy, grey to greenish, with scattered fragments of green fine-grained sandstone (∅ = 0.1–0.5 cm), with plant detritus; clay, less sandy, and brownish downwards	Lc+p	23
21.2–22.8	sand, clayey, medium to coarse, with fragments of green, fine-grained sandstone and shale (a; ∅ = 0.1–0.3 cm)	Fs	22
22.8–23.1	clay, strongly sandy, and clayey sand, greenish-grey, with fragments of green shale	Lc+s	21
23.1–24.0	clay, sandy or silty, grey	Lc+s	20
24.0–25.0	clay, strongly sandy, and clayey sand, grey to grey-brownish, with fine fragments of weathered sandstone and shale (a)	Lc+s	19
25.0–25.85	clay, sandy, grey, with fine fragments of green fine-grained sandstone (a; ∅ = 0.1–0.3 cm); poor detritus of carbonized plants	Lc+s+(p)	18

App. 1 cont.

Depth [m]	Lithology	Facies	Bed
25.85–26.0	gravel, clayey, consisting of green, fine-grained sandstone (a; ∅ = 0.5–4 cm)	Fg	17
26.8– 26.9	gravel, strongly clayey, consisting of fragments of fine-grained sandstone fragments (a; ∅ = 0.5–3 cm)	Fg	16
26.9–27.0	clay, sandy, grey and grey-brownish, with chaotically set lignite fragments	Lc+p, S	15
27.0–27.1	clay, sandy	Lc	14
27.1–27.4	clay, sandy and gravelly, grey, with weathered sandstone fragments (a; ∅ = 0.1–1 cm)	Lc+s+g	13
27.4–28.0	clay, passing downwards into brownish gravel consisting of sandstone and shale fragments (a; ∅ = 0.1–1 cm), with chaotically set plant fragments – subaqueous landslide	Lc/Fg+p S	12
28.0–28.1	gravel (as above)	Fg	11
28.1–28.55	clay, sandy, brownish-grey, with chaotically set lignite fragments and green sandstone fragments (a; ∅ = 0.1–0.5 cm); subaqueous landslide	Lc+p/S	10
28.55–29.5	gravel, clayey-sandy, grey to grey-brownish, consisting of fragments of weathered green sandstone (a; ∅ = 0.1–2 cm) mixed with clay and brown lignite fragments: the latter are set vertically or subvertically (subaqueous slump)	Fg+p/S	9
29.5–30.5	coarse gravel, consisting of weathered green sandstone (Magura-type) and fine-grained sandstone (a, sa; ∅ = 0.5–8 cm)	Fg	8
30.5–31.0	clayey gravel, rich in fragments of brown lignite and sandstone, set chaotically or diagonally (dips of cross-strata 10–15 degrees), green to greenish-brown: subaqueous slump	Fg+c+p/S	7
31.0–33.1	clayey-sandy gravel, greenish, consisting almost entirely of greenish, weathered, fine- to medium-grained sandstone (a – partly Magura-type) and green shale fragments (a, sa; ∅ = 0.1–4 cm)	Fg+c+s	6
33.1–33.5	gravel, loose, consisting of grey or greenish coarse sandstone (Magura-type) fragments (sa, sr, r; ∅ =1–8 cm)	Fg	5
33.5–34.3	gravel, clayey-sandy, yellowish	Fg+c+s	4
34.3–34.2	gravel, clayey, passing to loose gravel (a; ∅ =1–5 cm) consisting of green or green-yellow fine-grained sandstone	Fg+c	3
34.2–35.7	gravel, greenish, consisting of shale (∅ = 1–5 cm) and fine-grained sandstone (∅ = 1–3 cm) fragments	Fg/S	2
35.7–36.0	gravel, loose (sa, sr, r; ∅ =1–5 cm), flat pebbles (typical river gravel), consisting of sandstone and shale fragments (from the Szczawnica and Zarzecze formations), in strongly clayey greenish-yellow sand	Fg+s+c	1
Bedrock			
36.0–38.0	weathering cover consisting of green and rusty shale and sandstone fragments (∅ to 8 cm)	regolith	
38.0	shale, grey, dipping 85–90°: Zarzecze Formation (Paleogene)	bedrock	

Facies abbreviations: c – clay; Fg – fluvial gravel (a – angular; r – rounded; sa – subangular; sr – subrounded; wr – well-rounded); Fs – fluvial sand; Fsch – fluvial sand-filled channel; g – gravel; Lc – lake-bottom clay; p – macro-plant remains; s – sand; S – subaqueous slump