

Mémoire

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Faculté : Faculté des Sciences

Diplôme : Master en sciences géographiques, orientation global change, à finalité approfondie

Année académique : 2024-2025

URI/URL : <http://hdl.handle.net/2268.2/23889>

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**OSL dating and sedimentary and morphological
analysis of the gold panning mounds along two
streams in the Ardennes (Rougerie and Schinderbach,
Belgium)**

APPENDIX

Master thesis presented by: **Thomas HENNUY**

for obtaining the title of

**Master in geography, Global Change, research focus in geomorphology and
environmental risks**

Academic year:

2024-2025

Date of defense:

September 2025

President of jury:

Pr. Xavier FETTWEIS

Promoters:

Pr. Geoffrey HOUBRECHTS

Pr. Dimitri VANDENBERGHE

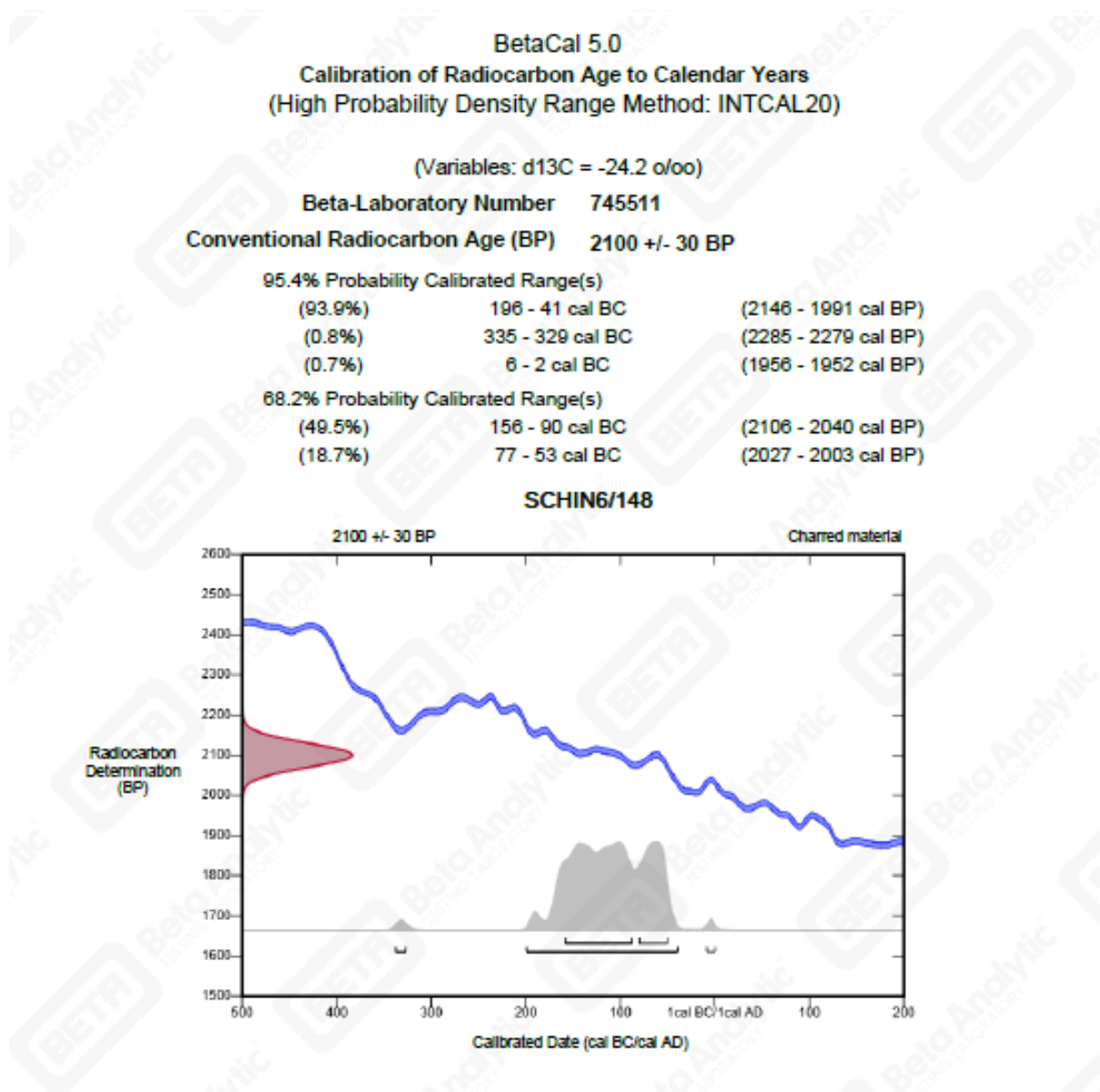
Reading jury:

Pr. Xavier FETTWEIS

Pr. Serge SCHMITZ

Chapter X: APPENDIX

1. Radiocarbon dating results (Schinderbach stream: SCHIN 6 – 148 cm deep)



2. Core sampling coordinates (Lambert 72 – EPSG: 31370)

	X	Y	Z
ROUG 1	262,339.2	107,140.2	470.9
ROUG 2	262,339.2	107,138.6	470.8
ROUG 3	262,339.4	107,142.6	471.0
ROUG 4	262,339.6	107,145.7	471.0
ROUG 5	262,338.7	107,132.3	470.9
SCHIN 1	276,414.9	119,802.5	471.0

SCHIN 2	276,405.0	119,799.4	471.0
SCHIN 3	276,393.4	119,795.9	471.0
SCHIN 4	276,379.4	119,791.5	469.9
SCHIN 5	276,376.6	119,790.5	469.9
SCHIN 6	276,361.4	119,785.7	472.7
SCHIN 7 (2 failed attempts)	276,352.2	119,783.4	472.0
SCHIN 8	276,343.6	119,780.9	470.6
SCHIN 9 (1 failed attempt)	276,332.0	119,777.6	471.4

3. OSL sampling locations



Rougerie 4



Schinderbach 1







3. Core descriptions

SCHIN 1: 0 - 100 cm



Length of sample taken: 92.5 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 7 cm: Humus – Munsell: 10YR2/3 *brownish black*

7 – 12 cm: Organic silt – Munsell: 10YR4/6 *brown*

12 – 22 cm: Gravel with roots in a silty matrix

22 – 48 cm: Clayey silt, not sandy (except for pockets of sand) and/or gravel – Munsell: 5Y5/3 *grayish olive*

48 – 68 cm: Gravel (fluvial?) in sandy-silty matrix, significantly less compact than 22-48 cm, pebble at 53.5-56.5 cm

68 – 92.5 cm: Sand with scattered gravel, less compact than 22-48 cm – Munsell: 2.5Y6/6 *yellowish brown*

SCHIN 1 : 100 – 190 cm



Length of sample taken: 86 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 8 cm: Contamination

8 – 21 cm: Sand, unfilled core – Munsell: 2.5Y6/6 *bright yellowish brown*

21 – 35 cm: Sandy silt, Pebble at 24-27 cm – Munsell: 5Y6/3 *olive yellow*

35 – 38 cm: Sand pocket

38 – 86 cm: Clayey silt with two colour variations, erratic pebbles at 40-42 cm, at 54-56 cm, at 65-68 cm, 75-78 cm, presence of microcharcoals at 40-41 cm – Munsell: 5Y4/3 *olive* & 5Y5/3 *grayish olive*

SCHIN 2 : 10 – 110 cm¹



Length of sample taken: 88 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 3 cm: Humus – Munsell: 10YR2/3 *brownish black*

3 – 10 cm: Two large stones with apparent axis $b = 5$ cm (tube diameter)

10 – 30 cm: Clayey silt with some scattered gravel – Munsell: 5Y5/3 *grayish olive*

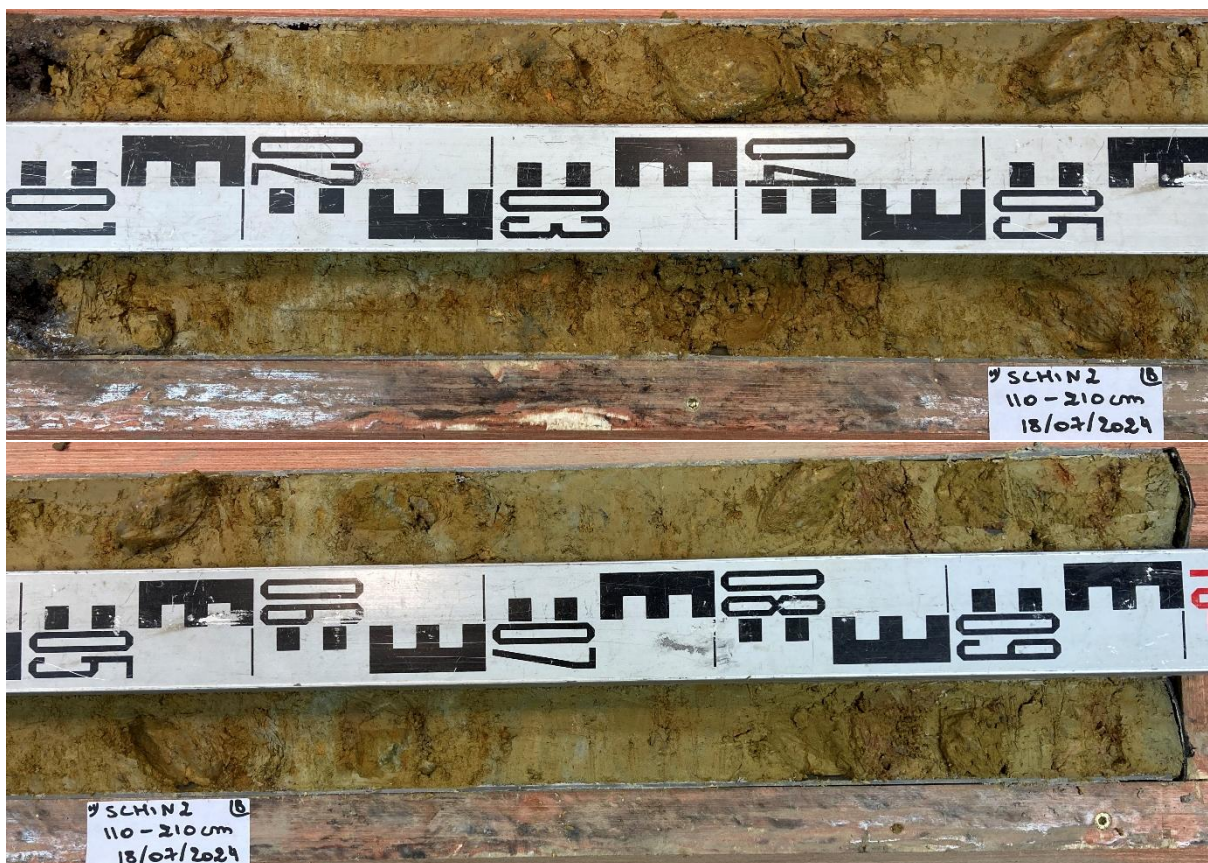
30 – 88 cm: Clayey silt becoming increasingly sandy towards the bottom, pebbles (axis $b = 1$ -2 cm): at 42 cm, to 50 cm, to 53 cm, to 58 cm, to 61 cm, 73-75 cm, to 84 cm – Munsell: 5Y6/3 *olive yellow*

¹ 0 – 10 cm : layer of humus removed manually to obtain a stable surface

SCHIN 2 : 110 – 210 cm



Length of sample taken: 100 cm

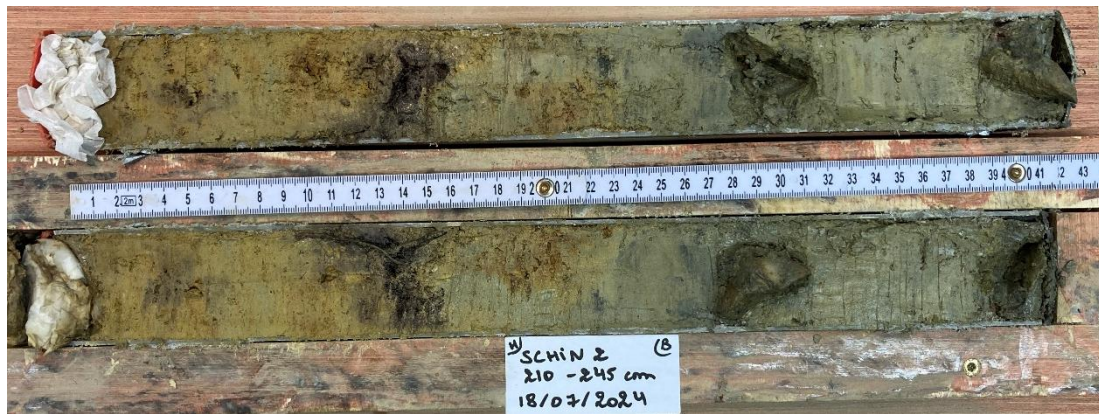


Depth in tube – Description – Colour (Munsell classification)

0 – 11 cm: Contamination

11 – 100 cm: Sandy silt with scattered pebbles, pebbles: at 15-16 cm, at 37-42 cm, at 53-57 cm, to 60-61 cm, to 67-68 cm, to 83-87 cm, to 90-92 cm – Munsell: 5Y6/3 *olive yellow*

SCHIN 2 : 210 – 245 cm



Length of sample taken: 42 cm

Depth in tube – Description – Colour (Munsell classification)

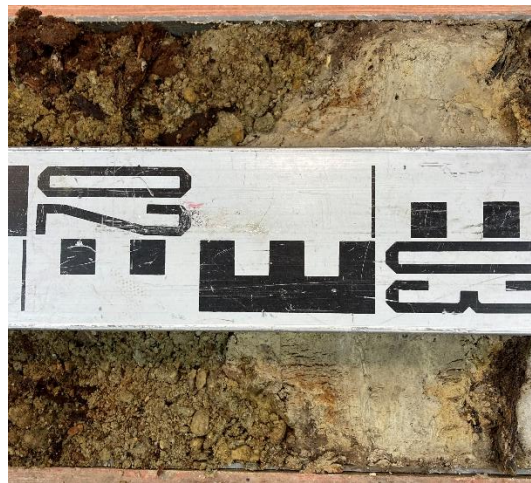
0 – 16 cm: Contamination

16 – 42 cm: Clayey silt, absence of sand, presence of dark spots at 22-28 cm, large pebble at 28-31 cm and at 39-42 cm – Munsell: matrix 5Y5/3 *grayish olive*, spots 5Y4/1 *gray*

SCHIN 3 : 0 – 100 cm



Length of sample taken: 81 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 4 cm: Humus – Munsell: 10YR2/3 *brownish black*

4 – 9 cm: Organic silt – Munsell: 10YR4/6 *brown*

9 – 26 cm: Gravel and sand, organic level (root) at 15-21 cm – Munsell: 2.5R5/4 *yellowish brown*

26 – 28 cm: Angled contact between mound and silty clay

28 – 50 cm: Silty clay with scattered gravel, root at 35-36 cm, scattered gravel with higher concentration at 40-44 cm and 47-50 cm – Munsell: 2.5Y7/2 *grayish yellow*

50 – 81 cm: Variegated silty clay with sandy lenses, more compact than the layer 28-50 cm, root at 59 cm – Munsell: 7.5Y5/2 *grayish olive*, variegated spots 10Y5/2 *olive gray* & 10YR5/8 *yellowish brown*

Interpretation: 9-26 cm corresponds to washed sediments (mound), 28-50 cm corresponds to alluvial plain deposits

SCHIN 3 : 100 – 190 cm



Length of sample taken: 93 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 8 cm: Contamination

8 – 71.5 cm: Gravel in clay-silt matrix – Munsell: 2.5Y6/4 *dull yellow*

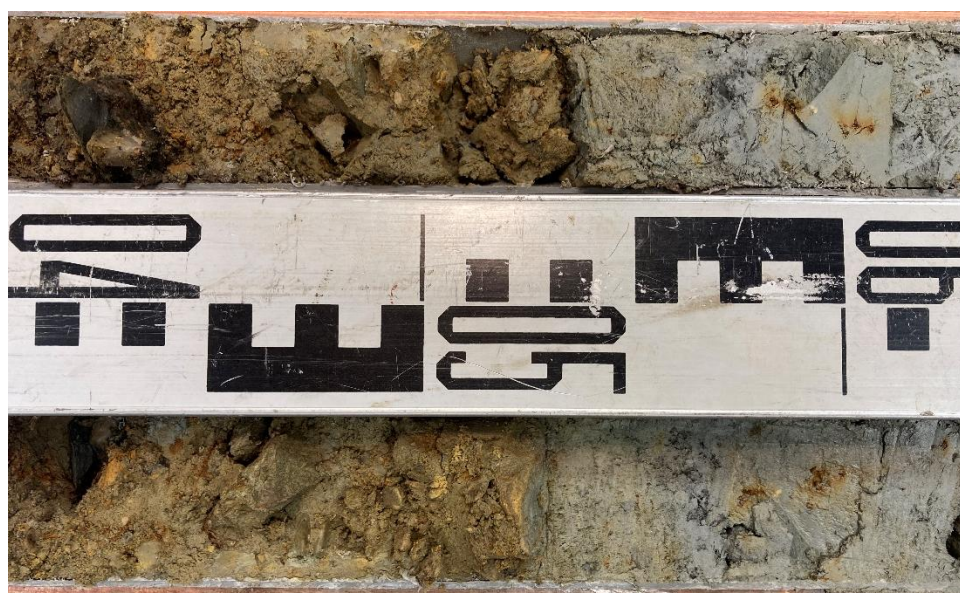
71.5 – 93 cm: Grey clay with the presence of a large quartz at 87-89 cm (apparent b-axis = 2 cm) – Munsell: 5Y5/4 *olive*

Interpretation: 8-71.5 cm corresponds to reworked deposits (solifluction?)

SCHIN 4 : 0 – 100 cm



Length of sample taken: 64.5 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 10 cm: Humus, silty humus matrix, quartz pebble at 3-5 cm – Munsell: 7.5YR2/2
brownish black

10 – 22.5 cm: Large gravel in silty-sandy matrix, contact with gravel at 10 cm – Munsell:
5Y5/2 grayish olive

22.5 – 31 cm: Silty matrix – Munsell: 5Y5/2 *grayish olive*

31 – 52.5 cm: Silty matrix becomes increasingly sandy – Munsell: 5Y5/4 *olive*

52.5 – 64.5 cm: Grey clay (gley) – Munsell: 5Y5/1 *gray*

Interpretation: 52.5-64.5 cm corresponds to weathered bedrock?

SCHIN 4 : 100 – 200 cm



Length of sample taken: 87 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 10 cm: Contamination

10 – 17 cm: Grey clay (gley), continuation of SCHIN 4 (0-100 cm) – Munsell: 5Y5/1 *gray*

17 – 21 cm: Large stone (the diameter of the tube) with contamination stains

21 – 60 cm: Grey clay (gley) – Munsell: 5Y5/1 *gray*

60 – 87 cm: Grey-ochre clay – Munsell: 7.5Y5/3 *grayish olive*

SCHIN 4 : 200 – 300 cm



Length of sample taken: 99 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 10 cm: Contamination

10 – 30 cm: Grey clay – Munsell: 10YR5/2 *olive gray*

30 – 37 cm: Grey-ochre clay – Munsell: 7.5Y5/3 *grayish olive*

37 – 99 cm: Gray clay – Munsell: 10YR5/2 *olive gray*

SCHIN 5 : 0 – 92 cm



Length of sample taken: 51 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 10 cm: Humus – Munsell: 5YR2/1 *brownish black*

10 – 21.5 cm: Mixture of flood deposits, mineral silt and organic matter – Munsell: 2.5Y4/2 *dark grayish yellow*

21.5 – 29 cm: Peat – Munsell: 5YR2/1 *brownish black*

29 – 34 cm: Two large gravels in a gray clay matrix

34 – 40 cm: Peat – Munsell: 5YR2/1 *brownish black*

40 – 48 cm: Heterogeneous deposits in slightly variegated clay, small rolled gravels – Munsell: 5Y4/2 *grayish olive*

48 – 51 cm: A large pebble

SCHIN 6 : 0 – 100 cm



Length of sample taken: 69 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 6 cm: Brown humus soil (humus) – Munsell: 10YR2/3 *brownish black*

6 – 17 cm: Brown soil and mound mix – Munsell: 10YR4/6 *brown*

17 – 69 cm: Sand with gravel (max. 1 cm), lots of gravel – Munsell: 10YR6/8 *yellowish brown*

SCHIN 6 : 100 – 200 cm



Length of sample taken: 73 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 7 cm: Contamination

7 – 37.5 cm: Continuation of the mound, small gravels in ochre sand – Munsell: 10YR6/8 *yellowish brown*

37.5 – 61 cm: Grey clayey silt (gley), 3 coals at 40-41 cm, 1 coal at 43.5 cm – Munsell: 5Y5/3 *grayish olive*

61 – 66 cm: Large quartz of 5 cm which blocks the core

66 – 73 cm: Mixture of well-defined pockets of sand, gravel and silt – Munsell: sand 10YR4/3 *dull yellowish brown*, matrix 5Y5/3 *grayish olive*

SCHIN 6 : 200 – 300 cm



Length of sample taken: 97 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 11 cm: Contamination

11 – 97 cm: Variegated grey clay, sandy passages with scattered gravel, present at 36-42 cm of three large pebbles including one quartz – Munsell: matrix 7.5Y5/2 *grayish olive*, variegated spots 10Y5/2 *olive gray* & 10YR5/8 *yellowish brown*

SCHIN 6 : 300 – 400 cm



Length of sample taken: 71 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 13 cm: Contamination

13 – 32 cm: 4 large pebbles in a silty-clayey matrix (slightly sandy), clearly less variegated – Munsell: 7.5Y5/2 *grayish olive*

32 – 55 cm: Almost pure gray clay – Munsell: 5Y6/2 *grayish olive*

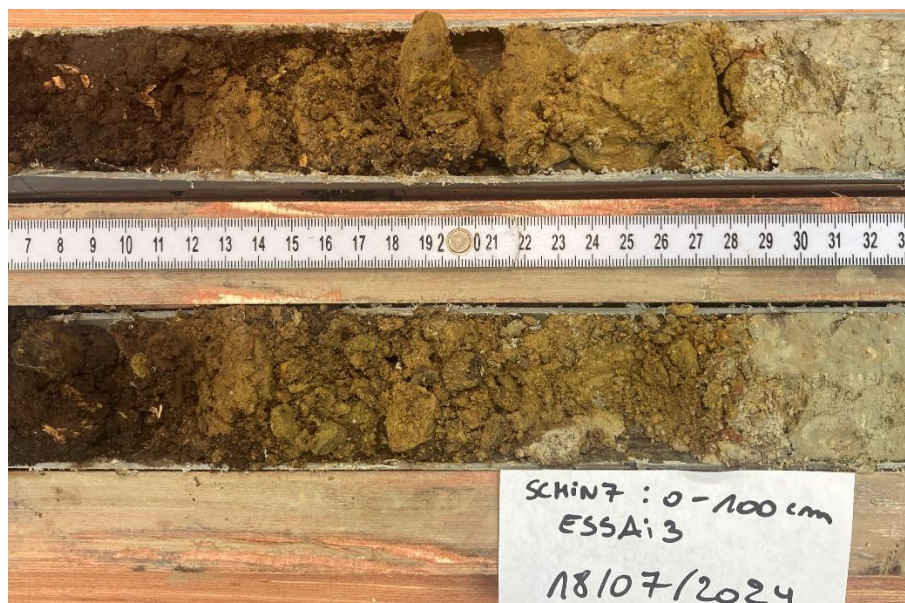
55 – 71 cm: Almost pure grey clay, slight colour change from 32-55 cm – Munsell: 5Y5/1 *gray*

Interpretation: 32-71 cm corresponds to weathered bedrock?

SCHIN 7 (test 3) : 0 – 100 cm



Length of sample taken: 47 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 4 cm: Yellow silt with small gravel – Munsell: 10YR5/6 *yellowish brown*

4 – 7 cm: Organic matter (humus), little sediment – Munsell: 7.5YR2/3 *very dark brown*

7 – 12 cm: Transition, mixture of organic matter and centimetric gravel

12 – 28 cm: Gravel in ochre clay matrix – Munsell: 10YR5/8 *yellowish brown*

28 – 47 cm: Compact clay with gravel, gravel level (axis c: 1 cm) at 37.5 cm – Munsell: 7.5Y6/2 *grayish olive*

SCHIN 7 (test 3) : 100 – 200 cm



Length of sample taken: 100 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 10 cm: Contamination, mound sediments, gravel and angular pebbles

10 – 37 cm: Grey clay with scattered pebbles, large, non-blunt pebble at 13-17 cm, large quartz at 20-25 cm, large, non-blunt pebble, variegated yellow ochre at 25-37 cm

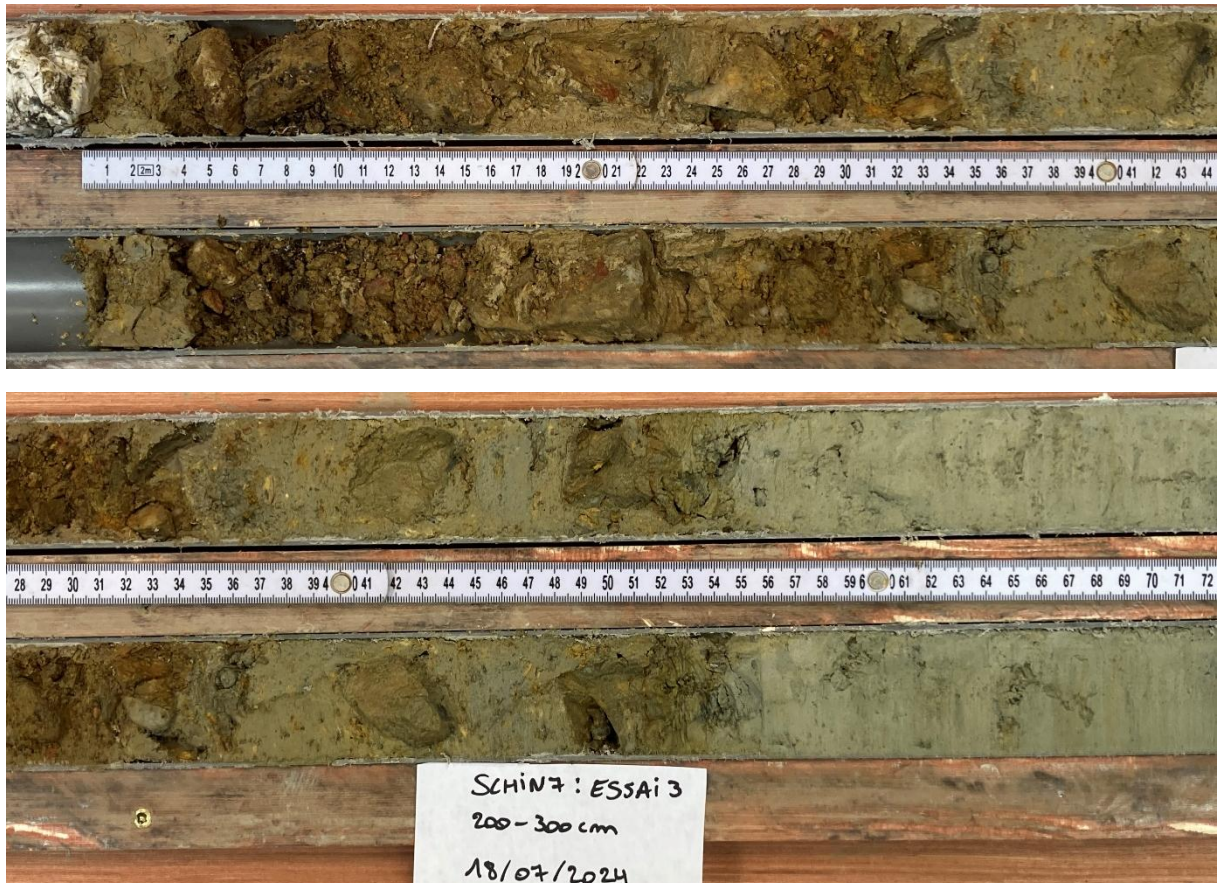
37 – 41 cm: Large pebble, ferruginous sandstone colour

41 – 100 cm: Sandy silt with scattered centimetric gravels (some are blunt), variegated colours – Munsell: matrix 7.5Y5/2 *grayish olive*, spots 10Y5/2 *olive gray* & 10YR5/8 *yellowish brown*

SCHIN 7 (test 3) : 200 – 300 cm



Length of sample taken: 92 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 4 cm: Contamination, compact gray clay silt

4 – 16 cm: Contamination, collapsed mound and humus

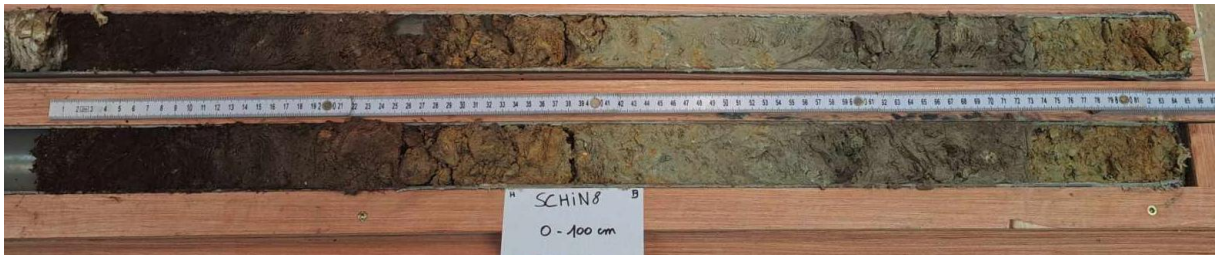
16 – 31 cm: Large gravels in ochre clay with blunt elements – Munsell: 2.5Y6/4 *dull yellow*

31 – 54 cm: Variegated grey clay with scattered gravel, similar to the bottom of SCHIN 7
100-200 cm – Munsell: 7.5Y5/2 *grayish olive*

54 – 92 cm: Sandy clay with very small scattered gravels – Munsell: 7.5Y6/2 *grayish olive*

Interpretation: 54-92 cm probably corresponds to weathered bedrock

SCHIN 8 : 0 – 100 cm



Length of sample taken: 85 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 12 cm: Humiferous clayey silt rich in organic matter – Munsell: 7.5YR2/2 *brownish black*

12 – 19.5 cm: Humiferous clayey silt, less and less organic towards the bottom – Munsell: 10YR3/4 *dark brown*

19.5 – 39.5 cm: Gravel in ochre silt-sand matrix, presence of coarse elements, gravel level at 19.5-34 cm (but same layer up to 39 cm), pebbles (b-axis, depth): 37 mm at 23 cm, 25 mm at 27 cm, 27 mm at 29 cm, 24 mm at 32 cm – Munsell: 2.5Y5/4 *yellowish brown*

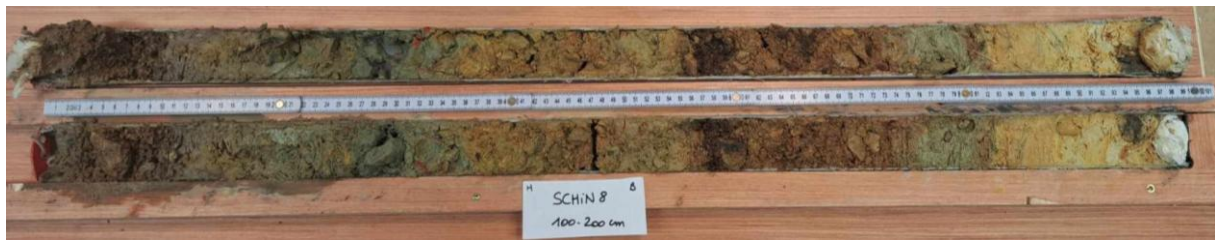
39.5 – 55.5 cm: Grey clay (gley), no pebbles, presence of ochre spots – Munsell: 5Y6/2 *grayish olive*

55.5 – 73 cm: Gravel in grey clay (gley), clay becomes browner, 15 mm pebble at 58 cm – Munsell: 2.5Y4/2 *dark grayish olive*

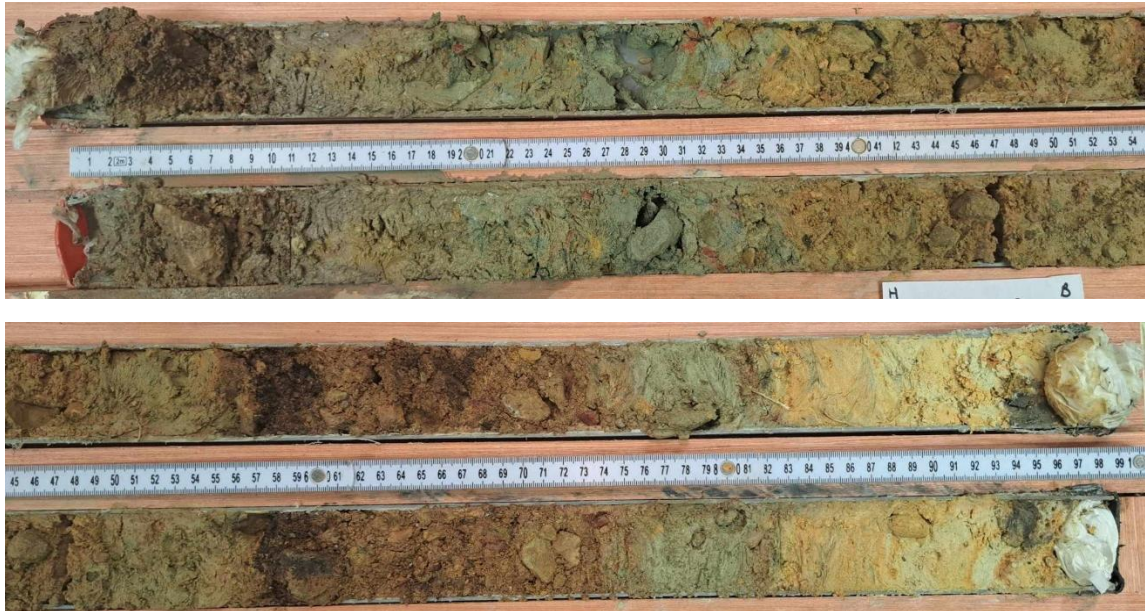
73 – 85 cm: Small gravel (max. 15 mm) in a silty-clayey-sandy matrix – Munsell: 2.5Y5/6
yellowish brown

Interpretation: 19.5-39.5 cm corresponds to gold panning rejects, 39.5-85 cm is fluvial?

SCHIN 8 : 100 – 200 cm



Length of sample taken: 97 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 4 cm: Probable contamination, gray clay silt

4 – 11 cm: Gravel (max. 27 mm to 6 cm) with many small chips, little fine matrix, wet – Munsell: 10YR4/4 *brown*

11 – 20 cm: Sandy loam with some gravel – Munsell: 2.5Y4/4 *olive brown*

20 – 31 cm: Increase in the proportion of blunt gravel, silty-clayey matrix, gley colour – Munsell: 10Y5/2 *olive gray*

31 – 36 cm: Transition between gley and ochre oxidized levels, clayey silt with small gravels (max. 12 mm)

36 – 56 cm: Small gravels scattered in a silty-clayey matrix, a few small spots manganese – Munsell: 5Y5/3 *grayish olive*

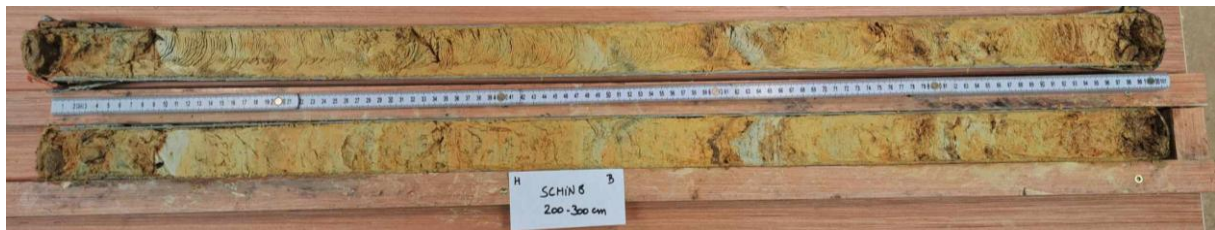
56 – 75 cm: Coarse, sandy elements, large Mn spots, pebbles from 30 mm to 60 mm – Munsell: 10YR5/6 *yellowish brown*

75 – 83 cm: Grey clayey silt, some scattered gravels of 7-8 mm – Munsell: 7.5Y6/2 *grayish olive*

83 – 97 cm: Yellow sand with white horizontal leached passages, 15 mm pebble at 89 cm, hard Mn stain – Munsell: 2.5Y7/8 *bright yellowish brown*

Interpretation: 83-97 cm corresponds to weathered bedrock?

SCHIN 8 : 200 – 300 cm



Length of sample taken: 100 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 9 cm: Probable contamination

9 – 11 cm: Whitish clayey silt – Munsell: 7.5Y8/3 *pale yellow*

11 – 98 cm: Ochre clayey silt, different shades of ochre, Mn layer at 59.5-60 cm, whiter level at 62-66 cm – Munsell: 10YR6/8 *bright yellowish brown*, 5Y7/3 *light yellow*, 2.5Y7/6 *olive brown*

98 – 100 cm: Gravel and chippings (max. 28 mm at 100 cm) in fine brown matrix, not blunt – Munsell: 2.5Y4/4 *olive brown*

Interpretation: 11-100 cm corresponds to weathered bedrock?, shades of ochre at 11-98 cm correspond to different grain sizes, 98-100 cm corresponds to contamination during core extraction?

SCHIN 8 : 300 – 351 cm



Length of sample taken: 95 cm

Depth in tube – Description – Colour (Munsell classification)

0 – 56 cm: Contamination

56 – 91 cm: Same as SCHIN8 200-300 cm to 11-98 cm

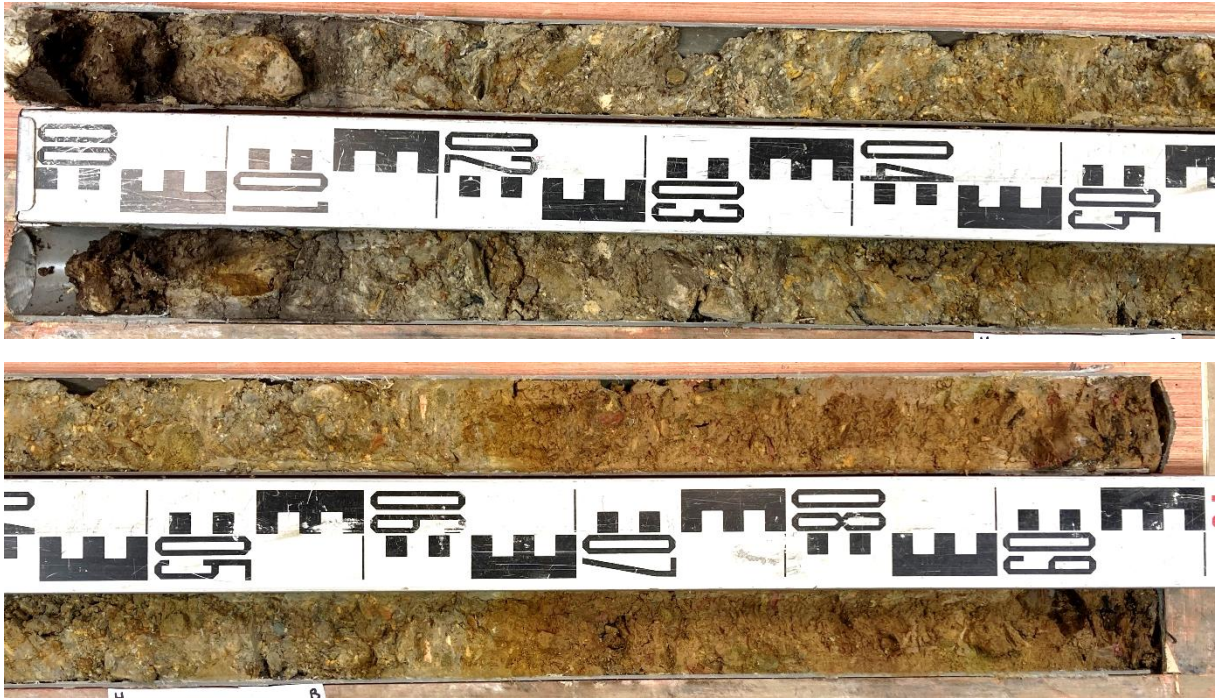
91 – 95 cm: Empty in the carrot

Interpretation: empty at 91-95 cm corresponds to a large stone? Bedrock?

SCHIN 9 (test 1) : 0 – 100 cm



Length of sample taken: 99 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 7 cm: Humus soil (humus) – Munsell: 10YR2/3 *brownish black*

7 – 13 cm: Large stone (a axis = 6 cm, b axis = 3 cm)

13 – 15 cm: Brown humus soil – Munsell: 10YR2/3 *brownish black*

15 – 65 cm: Variegated clayey silt with pockets of sand (similar to SCHIN 6 and 7) – Munsell: 7.5Y5/2 *grayish olive*

65 – 99 cm: Clayey-sandy loam (all mixed), rusty-brown colour, presence of Mn concretions – Munsell: 10YR5/6 *yellowish brown*

SCHIN 9 (test 1) : 100 – 147 cm



Length of sample taken: 42 cm

Depth in tube – Description – Colour (Munsell classification)

0 – 6 cm: Contamination

6 – 12 cm: Risk of contamination

12 – 32 cm: Numerous gravels in sandy-silty matrix, uncontaminated, pebbles from 2 cm to 14-16 cm – Munsell: 10YR5/6 *yellowish brown*

32 – 42 cm: Same as 12-32 cm, becomes coarser, many Mn concretions, pebbles (b-axis, depth): 2 cm at 32-35 cm, 2 cm at 33-34 cm, 2 cm at 35.5-38 cm, 2 cm at 40-41 cm – Munsell: 10YR5/6 *yellowish brown*

SCHIN 9 (test 2) : 0 – 100 cm



Length of sample taken: 91 cm



Depth in tube – Description – Color (Munsell classification)

0 – 11 cm: Humus soil (humus) – Munsell: 10YR2/3 *brownish black*

11 – 41 cm: Numerous pebbles in gray silty-clayey matrix, pebbles (axis b, depth): 35 mm at 30 cm, 30 mm at 40 cm – Munsell: 5Y5/2 *grayish olive*

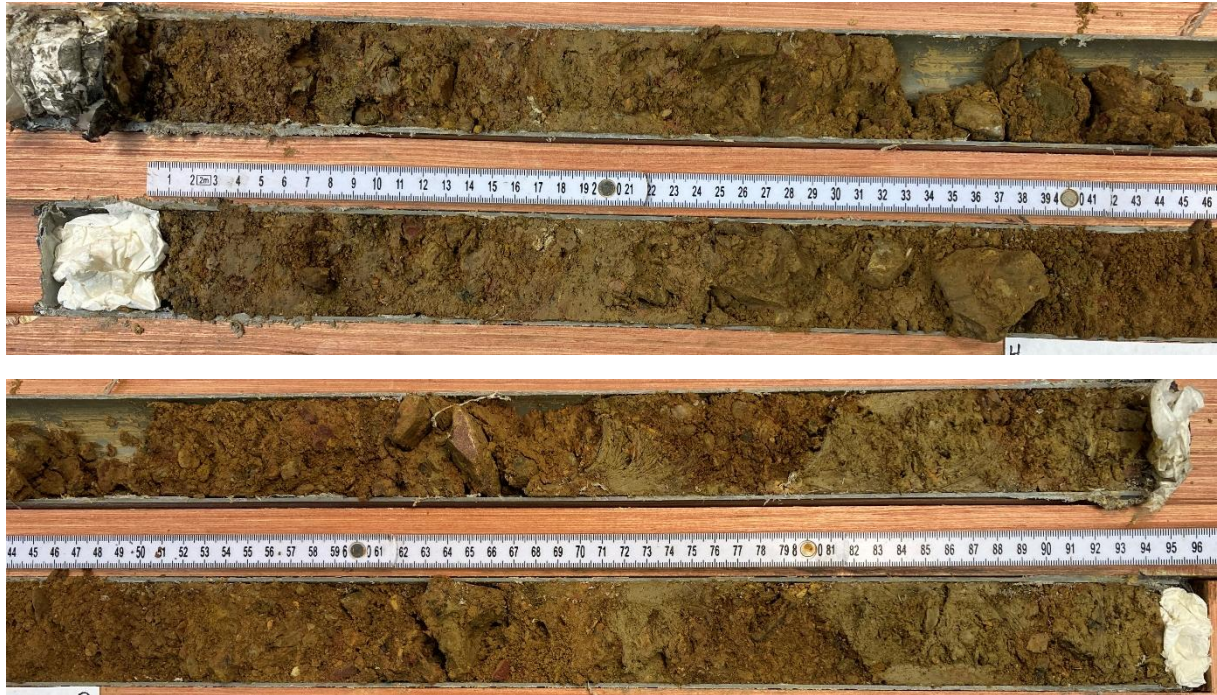
41 – 64 cm: Numerous pebbles in ochre silty matrix – Munsell: 10YR5/6 *yellowish brown*

64 – 91 cm: Same, Mn concretions give a sandy appearance – Munsell: 10YR4/6 *brown*

SCHIN 9 (test 2) : 100 – 200 cm



Length of sample taken: 95 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 13 cm: Clayey silt, small centimetric gravel, Mn stains

13 – 24 cm: Finer clayey silt, some gravel (knife tip does not sink in) in the carrot – Munsell: 2.5Y5/6 *yellowish brown*

24 – 38 cm: Several large elements, pebbles (axis b, depth): 34 mm to 27 cm, 42 mm to 36 cm – Munsell: 10YR5/6 *yellowish brown*

38 – 70 cm: Sandy, less clay, more small gravel – Munsell: 10YR4/6 *brown*

70 – 75 cm: Clayey silt, more clayey than 38-70 cm, small gravel and sand – Munsell: 2.5Y6/4 *dull yellow*

75 – 81 cm: Same as 38-70 cm, sandy with small gravel – Munsell: 10YR4/6 *brown*

81 – 95 cm: Clayey silt with small gravel – Munsell: 2.5Y6/4 *dull yellow*

Interpretation: 0-13 cm corresponds either to contamination or to continuity of 0-100 cm

SCHIN 9 (test 2) : 200 – 204 cm



Length of sample taken: 4 cm

Depth in tube – Description – Color (Munsell classification)

0 – 4 cm: Same as 81-95 cm (SCHIN9: 100-200 cm), clayey silt with small gravel – Munsell: 2.5Y6/4 *dull yellow*

ROUG 1 : 0 – 100 cm



Length of sample taken: 62.5 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 25 cm: Humus, very organic brown silt – Munsell: 10YR3/2 *brownish black*

25 – 30 cm: Sandy silt – Munsell: 2.5Y3/3 *dark olive brown*

30 – 40 cm: Darker sandy loam – Munsell: 2.5Y3/2 *brownish black*

40 – 42 cm: Organic level at the silt-gravel contact – Munsell: 10YR3/2 *brownish black*

42 – 47 cm: Small light gravel – Munsell: 2.5Y5/6 *yellowish brown*

47 – 58 cm: Small gravel darker and coarser than 42-47 cm – Munsell: 2.5Y4/2 *dark grayish yellow*

58 – 62.5 cm: Large pieces of pebbles – Munsell: 2.5Y4/2 *dark grayish yellow*

ROUG 1 : 100 – 188 cm



Length of sample taken: 96 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 3.5 cm: Contamination

3.5 – 6.5 cm: Very large pebble – Munsell: 2.5Y4/2 *dark grayish yellow*

6.5 – 53 cm: Numerous scattered pebbles in a clayey-silty-sandy matrix, very wet – Munsell: 2.5Y4/2 *dark grayish yellow*

53 – 55 cm: Gravel – Munsell: 2.5Y4/2 *dark grayish yellow*

55 – 62 cm: Small gravel and sand – Munsell: 2.5Y4/2 *dark grayish yellow*

62 – 66 cm: Gravel in fine clay-silt matrix – Munsell: 2.5Y4/2 *dark grayish yellow*

66 – 88 cm: Small gravel (max. 1 cm) and sand, homogeneous – Munsell: 5Y4/3 *dark olive*

88 – 94 cm: Coarse sand without gravel – Munsell: 5Y4/3 *dark olive*

94 – 96 cm: Large quartz in the head of the corer, fine silty-clayey matrix

Interpretation: 66-88 cm corresponds to filling during or after exploitation. Large quartz at 94-96 cm is too large to have been transported by the river, so either colluvium or exploitation.

ROUG 2 : 0 – 100 cm



Length of sample taken: 68 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 16 cm: Humus, organic silt – Munsell: 2.5Y3/3 *dark olive brown*

16 – 20 cm: Sandy level with small gravel (max. 3-4 mm) – Munsell: 2.5Y4/4 *olive brown*

20 – 28.5 cm: Clayey silt, becomes organic from 24 cm – Munsell: 2.5Y3/2 *brownish black*

28.5 – 39 cm: Sand and gravel – Munsell: 2.5Y4/3 *olive brown*

39 – 45 cm: Centimetre pebbles – Munsell: 2.5Y4/3 *olive brown*

45 – 57 cm: Wood (root?) – Munsell: 10YR3/4 *dark brown*

57 – 60.5 cm: Gravel, centimetric elements – Munsell: 5Y4/3 *dark olive*

60.5 – 68 cm: Clayey silt with scattered gravel, very wet, fragments of organic matter – Munsell: 5Y4/3 *dark olive*

ROUG 2 : 100 – 200 cm



Length of sample taken: 95 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 5 cm: Contamination

5 – 30 cm: Sandy silt with fine gravel – Munsell: 5Y4/3 *dark olive*

30 – 37 cm: Peat, very organic silt – Munsell: 2.5Y3/3 *dark olive brown*

37 – 42 cm: Centimeter pebbles – Munsell: 5Y4/3 *dark olive*

42 – 64 cm: Sandy silt and gravel, not very cohesive – Munsell: 5Y4/3 *dark olive*

64 – 68 cm: Compact clayey silt – Munsell: 5Y4/4 *dark olive*

68 – 73 cm: A large stone blocking the carrot – Munsell: 5Y4/4 *dark olive*

73 – 95 cm: Very compact silty clay with scattered gravel, presence of patches of different colours (10Y5/1gray, 5YR3/6dark reddish brown) – Munsell: 5Y4/4 *dark olive*

ROUG 2 : 200 – 250 cm



Length of sample taken: 95 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 62 cm: Contamination

62 – 67 cm: Potential contamination, not taken into account

67 – 95 cm: Large gravel in compact clay-silt matrix, 2 large pebbles – Munsell: 5Y4/2
grayish olive

ROUG 3 : 0 – 100 cm



Length of sample taken: 59 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 13 cm: Very organic clayey silt humus – Munsell: 2.5Y3/2 *brownish black*

13 – 21 cm: Small sandy gravels in a very organic silty-clayey matrix – Munsell: 2.5Y3/2 *brownish black*

21 – 36.5 cm: Clayey silt (gley), without gravel – Munsell: 5Y4/2 *grayish olive*

36.5 – 48 cm: Sand, gravel, organic matter with organic macro-remains – Munsell: 2.5Y3/3
dark olive brown

48 – 59 cm: Fluvial gravels with sand, little fine matrix, well sorted – Munsell: 5Y4/3 *dark olive*

ROUG 3 : 100 – 200 cm



Length of sample taken: 83 cm



Depth in tube – Description – Color (Munsell classification)

0 – 8 cm: Contamination

8 – 19 cm: Centimeter-sized gravels, little fine matrix, well washed, coal in contact with contamination – Munsell: 2.5Y5/4 *yellowish brown*

19 – 26.5 cm: Organic silty level, no macro-remains – Munsell: 10YR3/4 *dark brown*

26.5 – 43 cm: Mixture of gravel and a lot of fine matrix, presence of roots at 31-34 cm – Munsell: 2.5Y4/3 *olive brown*

43 – 50.5 cm: Pure clayey silt, no sand – Munsell: 5Y5/3 *grayish olive*

50.5 – 60 cm: Large gravel in fine silty matrix, a larger pebble at 55-58 cm – Munsell: 5Y5/3 *grayish olive*

60 – 67 cm: Silt with scattered sand and small gravel – Munsell: 5Y4/2 *grayish olive*

67 – 83 cm: Compact gravel with a lot of fine matrix – Munsell: 5Y4/2 *grayish olive*

Interpretation: 67-83 cm was not exploited, original layer?

ROUG 3 : 200 – 283 cm



Length of sample taken: 100 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 41 cm: Contamination

41 – 49 cm: Sandy silt with gravel, large pebble at 44-47 cm – Munsell: 5Y4/3 *dark olive*

49 – 76 cm: Very compact clayey silt with a few scattered pebbles, a blunt pebble at 58-60 cm and one at 70-71.5 cm. At 70-76 cm: greater concentration of coarse elements (always the same layer) – Munsell: 5Y5/4 *olive*

76 – 100 cm: Very compact grey clay (gley), small shale plates, a large element appearing not to be rounded at 92-98 cm, crushed elements at 98-100 cm

Interpretation: 76-100 cm corresponds to weathered bedrock?

ROUG 4 : 0 – 100 cm



Length of sample taken: 44 cm

Depth in tube – Description – Colour (Munsell classification)

0 – 3 cm: Humus – Munsell: 7.5YR2/2 *black*

3 – 7.5 cm: Two large gravels in a sandy matrix – Munsell: 2.5Y4/6 *olive brown*

7.5 – 13.5 cm: Small, blunt gravel in sandy-silty matrix – Munsell: 2.5Y4/6 *olive brown*

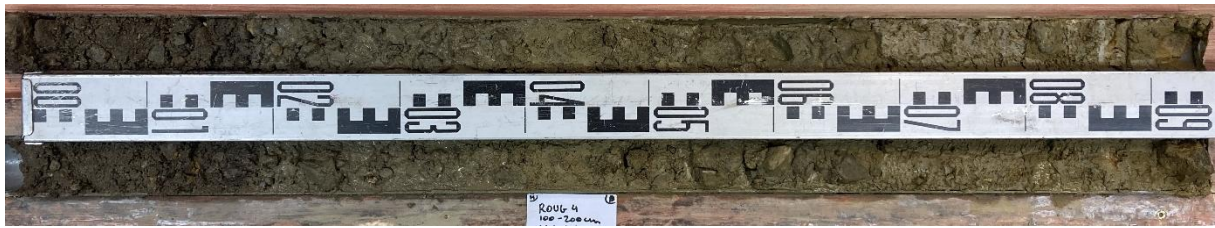
13.5 – 14.5 cm: Organic fine silty sand level – Munsell: 2.5Y3/3 *dark olive brown*

14.5-18.5 cm: Coarse sand, slightly variegated – Munsell: 5Y5/4 *olive*

18.5 – 40.5 cm: Pebbles in sandy and silty matrix, some large scattered pebbles – Munsell: 5Y4/2 *grayish olive*

40.5 – 44 cm: Peat sand – Munsell: 2.5Y3/3 *dark olive brown*

ROUG 4 : 100 – 200 cm



Length of sample taken: 96 cm



Depth in tube – Description – Color (Munsell classification)

0 – 15 cm: Contamination

15 – 17 cm: Sand and gravel, organic, matching the bottom of ROUG 4 0-100 cm – Munsell: 2.5Y3/3 *dark olive brown*

17 – 34 cm: Scattered pebbles in sand and very loosely compacted fine matrix – Munsell: 5Y4/6 *dark olive*

34 – 53.5 cm: Compact clayey silt with scattered gravel – Munsell: 5Y5/4 *olive*

53.5 – 67.5 cm: Level with concentration of pebbles (5-6 pebbles of 2-3 cm) – Munsell: 5Y5/4 *olive*

67.5 – 92 cm: Same as 34-53.5 cm

92 – 96 cm: Large pebble blocking the core

ROUG 4 : 200 – 255 cm



Length of sample taken: 100 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 32.5 cm: Contamination, very well sorted sand and gravel, some gravel

32.5 – 42 cm: Contamination, only gravel

42 – 88 cm: Compact clayey silt with some scattered gravel, a large quartz at 84.5- 88 cm – Munsell: 5Y5/4 *olive*

88 – 100 cm: Same as 42-88 cm, slightly more compact and darker – Munsell: 5Y4/3 *dark olive*

ROUG 5 : 0 – 100 cm



Length of sample taken: 59 cm

Depth in tube – Description – Colour (Munsell classification)

0 – 4 cm: Humus – Munsell: 10YR3/2 *brownish black*

4 – 15.5 cm: Transition, mixture of roots, organic matter, silt and gravel, not very compact – Munsell: 5Y3/2 *olive black*

15.5 – 59 cm: Clayey silt with scattered gravels and sands, very compact, colour change at 31 cm in the same layer – Munsell: 5Y5/3 *grayish olive* then 10YR6/8 *bright yellowish brown*

ROUG 5 : 100 – 200 cm



Length of sample taken: 100 cm



Depth in tube – Description – Colour (Munsell classification)

0 – 19.5 cm: Contamination

19.5 – 45 cm: Clayey silt with gravel and sand, becoming more compact towards the bottom – Munsell: 7.5YR5/6 *bright brown*

45 – 72 cm: Very compact gray clayey loam with rust stains (7.5YR5/6), scattered gravel – Munsell: 5Y5/3 *grayish olive*

72 – 82 cm: Same as 45-72 cm – Munsell: 7.5YR5/6 *bright brown*

82 – 90 cm: Same as 45-72 cm, gravel with axis $b = 4$, axis $c = 2$ cm – Munsell: 5Y5/3 *grayish olive*

90 – 100 cm: Same as 45-72 cm, no visible gravel, a pebble obstructing the core at 100 cm – Munsell: 7.5YR5/6 *bright brown*

Interpretation: The 100 cm pebble comes from a larger block because the edges are broken as if the corer had started drilling a large block and one end was removed.