



Tree Surveys

BS5837 – Pre Planning – Mortgage – Risk Management & Prediction

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Tenbury Wells
Worcestershire
WR15 8NX
Tel: 0118 976 2902

30 June 2026

Nathan Cantell
Beechwood Tree Care Limited
2 Playhatch Farm Cottages
Playhatch
RG4 9QX

Dear Nathan

Re: Blue Coat School, Sonning Lane, Reading – tree inspection and decay detection.

Thank you for your instructions to carry out a visual inspection upon one lime and two beech trees at Blue Coat School, Sonning Lane, Reading, RG4 6SU.

The site visit and inspections were carried out by Simon Holmes MSc. MICFor on 16 June 2026. Access was made available by the Matt Wharton. The weather conditions for the inspection were dry and sunny.

The basic visual tree survey process is a simple data collection process; it followed procedures comparable to those prescribed by (Lonsdale, 1999¹) and (Mattheck and Breloer, 1994²) and National Tree Safety Group 2011³ gathering visual information on such things as:

- Tree size, age and health
- Tree species
- External Biomechanical signs
- Previous history of pruning
- External signs of decay
- Field identification of fungi.

Equipment used during the inspection included but was not limited to: a 600-millimetre stainless-steel probe, a nylon sounding mallet, binoculars and a digital camera. Decay detection was undertaken using an IML PD400 Resi drill, a synopsis of the drill is provided on page 4.

This report is concerned specifically with the structural characteristics and physiological condition of the trees we inspected. The primary purpose of this report is to establish the physiological and structural condition of the trees and formulate management proposals in line with industry best practice.

¹ Principles of Tree Hazard Assessment and Management, DoE booklet Research for Amenity Trees No. 7, (1999)

² The Body Language of Trees, DoE booklet Research for Amenity Trees No. 4, (1994)

³ Common Sense Risk Management of Trees. National Tree Safety Group, The Forestry Commission 2011



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We have no connections with any of the parties involved in this site that could influence the opinions expressed in this report.

The information contained in this report covers only the trees we examined and reflects the visual condition of the specimens at the time of inspection. We inspected the trees from ground level only.

The visual tree inspection is a baseline survey reflecting the condition of the trees on the day of the survey. The survey offers no guarantee, either expressed or implied, of the internal condition of the stem, furthermore, no warranty that problems or deficiencies may not arise in the future can be given.

The tree dimensions were recorded with the aid of a TruePulse™ laser hypsometer and the diameter with a rounded down diameter tape. The results are set out in the schedule below.

Tree Number	Tree Species	Height (m)	Diameter (mm) @ 1.5m AGL	Crown radius Av	Age Class
T249	Lime	27	910	9m	Mature
T630	Beech	27.9	950	16	Mature
T631	Beech	25	700	14	Mature

Key: m = metres mm = millimetres AGL = above ground level est = estimated Av = average

Background

Following a recent survey by Reliance Arboriculture and site visit by Beechwood Tree Care Ltd a second opinion was requested on tree (T) numbers 249, 630 and 631.

Legal status: The inspector did not conduct a search of the local planning authority records however anecdotal evidence indicates that the trees are subject to a tree preservation order (TPO).

Findings and Opinion

T249 is located in woodland to the north of the school buildings, and 6.5 metres from the neighbouring property boundary. It has characteristics typical of the species, with significant buttressing and dense epicormic growth at ground level. The inspector examined the area around the base of the stem for evidence of root plate movement, soil mounding, cracks or soil heave none were observed. When the inspector sounded the stem with a mallet, hollow intonations were heard on the southeast to west side. There are areas of dead bark and staining visible on the south side of the stem. The remaining bark is true to type and firmly attached. When the inspector removed samples of dead bark fungal mycelium was visible beneath (see Figure 1 on page 3), this was similar to that of honey fungus. The main stem is co dominant at 7.5 metres above ground level (AGL) and the canopy is asymmetrical with no obvious deadwood visible to the inspector. The physiological characteristics are normal. A full inspection of the canopy could not be undertaken due to the proximity of the adjacent trees.

Decay detection was undertaken close to ground level at the cardinal points and extensive decay was detected up to 26cm on the south side of the stem close to ground level. Decay was detected in both the north and west drillings but appears isolated in the central part of the test area. A control test at 1.5 metres AGL did not detect any significant decay or hollowing. However irregular amplitude can be seen with poor annual incremental definition.



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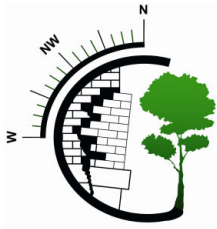
Figure 1. T249. 16.6.26



T630. This tree is located on the access road to the school boat house and within falling distance of the access road, Thames path and adjacent moorings. The inspector examined the area around the base of the stem for evidence of root plate movement, soil mounding, cracks or soil heave, none were observed. Fungal fruiting brackets (FFB) are visible on the northeast, south and west sides close to ground level (see Figure 2 below) and when tested with a sounding mallet hollow intonations were heard on the south and west sides.

Figure 2. T630. 16.6.26





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The main stem is true to type with a natural taper and the bark was firmly attached. The canopy is broadly symmetrical with pruning wounds associated with a canopy reduction. The physiological indicators of tree health at this time of year include leaf size, leaf density, incremental growth and callus (wound) wood development. The inspector visually assessed the canopy with binoculars, and minor die back is visible at the peripheral edge of the canopy with some leaf loss, see example at Figure 3 below.

Figure 3. T630. 16.6.2026



Five drillings were undertaken, 4 close to ground level at the cardinal points with one control test at 1.5 metres AGL on the north side. Extensive hollowing was detected on the north and east sides and significant areas of advanced decay were detected on the south and west sides. No significant decay or hollowing was detected at the control drilling 1.5 metres AGL on the north side.

T631 is located due west of T630 on an escarpment leading down to the Thames path. The inspector examined the area around the base of the stem for evidence of root plate movement, soil mounding, cracks or soil heave, none were observed.

Extensive areas of bark loss are visible around the stem from ground level to 1 metre AGL, see examples at Figure 4 on page 5. When tested with a sounding mallet no hollow intonations were heard. The main stem is true to type, and the remaining bark was firmly attached with no obvious signs of fungal pathogens. A large cavity is visible at 4.5 metres AGL on the north side, see Figure 5 on page 5.

The physiological indicators of tree health at this time of year include leaf size, leaf density, incremental growth and callus (wound) wood development. The inspector visually assessed the canopy with binoculars, and peripheral die back and deadwood is visible, see example at Figure 6 on page 6.



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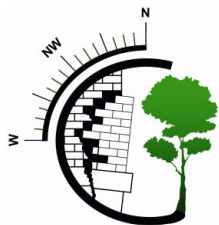
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Figure 4. T631. 16.6.26



Figure 5. T631. 16.6.26





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Figure 6. T631. 16.6.26



Resi PD400 (Synopsis)

The Resi PD400 (Resi) is a mechanical drilling machine with a constant drive, which measures the drilling resistance and rotational speed along a needle, when inserted into the tree. The result is displayed on a digital panel and stored electronically at a scale of 1:1, measurement is in metric units.

The object data field (top left of each page) provides information on the date, depth, needle speed and site-specific information. The assessment field (bottom left of each page) provides a detailed analysis of specific areas of dysfunction and is often colour coded. Readings are normally from right (entry into the tree) to left, with any specific comments in the box bottom right.

The drilling rate may be varied for hard or soft woods. The drilling resistance is correlated with the mechanical properties and the defective areas that have developed within the tree may be detected and assessed.

Examples of defects detected by the Resi may be dysfunctional areas such as internal cracks, areas of decay, resin pockets and hollows. Remaining wall thickness may be determined to a depth of 400 millimetres. The instrument is adept at detecting the early stages of decay in white rots as well as detecting brown rots at an early stage.

Conclusions

T249: decay was detected at ground level with no obvious FFB associated with it. Decay in lime is frequently associated with Brittle Cinder (*Kretzschmaria deusta*) that can be difficult to detect. The areas of dead bark and the mycelium observed beneath the bark is most probably associated to honey fungus (*Armillaria mellea*) however there were no FFB present. Symptoms of infection by honey fungus include discoloured foliage, reduced growth, die back and death. Honey fungus is a primary pathogen that is endemic, it can also be opportunistic killing a broad range of host species.



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The tree is close to the neighbouring property and in an area frequently used by school children and staff. The tree is a moderate risk should it or part of it fail requiring remedial work to reduce the risk associated with the decay and dysfunction.

T630. The decay detection established extensive decay at ground level due to colonisation by *Ganoderma* sp. It is at a high risk of failure at or close to ground level and in an area that is frequently occupied by school children and staff. The escarpment where it stands has a history of beech failure and it should be felled to ground level as soon as is reasonably practicable, but no later than 3 months from the date of this letter.

T631. There is no significant decay at ground level. Decay was detected on the east and west sides but is localised at the test locations. The loss of bark is unusual with no obvious cause. The cavity at 4.5 metres appears to be the result of a part included stem union failure. The cavity appears to follow the branch geometry and has good wound wood development around the edges. The die back and dead wood are most probably a result of vascular dysfunction due to the bark loss. As the surrounding area has a history of beech failing and *Ganoderma* FFB nearby, this tree is considered to be high risk.

Tree failure: many attempts have been made to establish prescriptive tree failure prediction criteria. These range from calculations of that part of the internal area, which is either hollow or significantly decayed, to comparisons of height and trunk diameter at 1.5 metres from ground level. Most of these attempts at predicting failure have been questioned and cannot be relied upon as accurate at this time.

Most mature trees contain defects, frequently significant, many of which have not been detected, and they fail comparatively rarely under normal conditions. The question arises as to what will trigger failure. This is impossible to predict however, it is generally a particular (not necessarily unusual) environmental condition. For example, trees are well-adapted to withstand wind however, if subject to a loading to which they have not adapted, they may fail such as was experienced in the hurricane of 1987. This report is valid for normal weather events only.

Trees are dynamic structures and therefore subject to many changes. Wind loading, if sufficiently high enough, can blow over the healthiest of trees. Where decay or root structure is compromised there is an increased risk of failure and therefore regular inspection is recommended by a suitably competent person especially following severe weather events.

Recommendations

T249: reduce the canopy by 5 metres to leave a final height of 21 metres +/- 1 metre, this work to be undertaken within 6 months of the date of this letter.

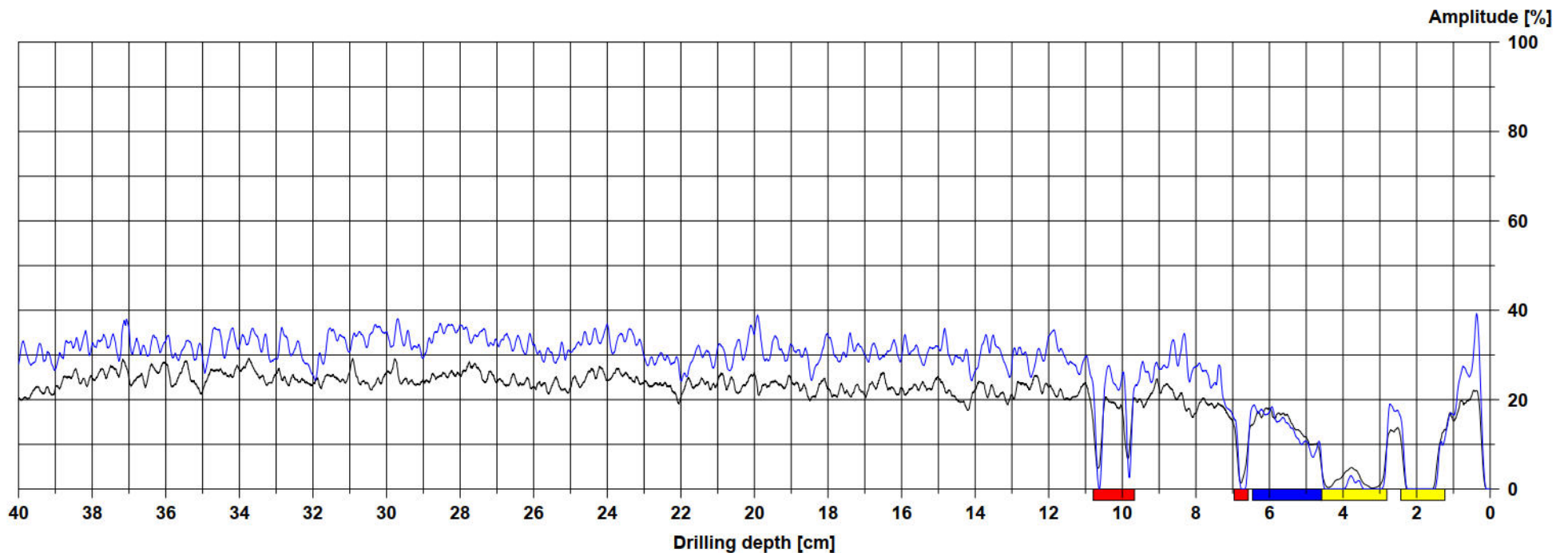
T630: fell to ground level in sections to be undertake as soon as reasonably practicable but no later than 3 months from the date of this letter.

T631: conduct a climbing inspection of the cavity to establish the extent of decay, work to be conducted 3 months from the date of this letter.

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Measuring / object data

Measurement no.:	11	Speed	: 2500 r/min	Diameter:	91,00 cm
ID number	: Blue Coat School	Needle state:	---	Level	: 150cm
Drilling depth	: 40,06 cm	Tilt	: 0°	Direction:	South
Date	: 16.06.2026	Offset	: 88 / 246	Species	: Lime 249
Time	: 13:13:25	Avg. curve	: off / off	Location	: School grounds
Feed	: 150 cm/min			Name	: Beechwood Tree Care



Assessment

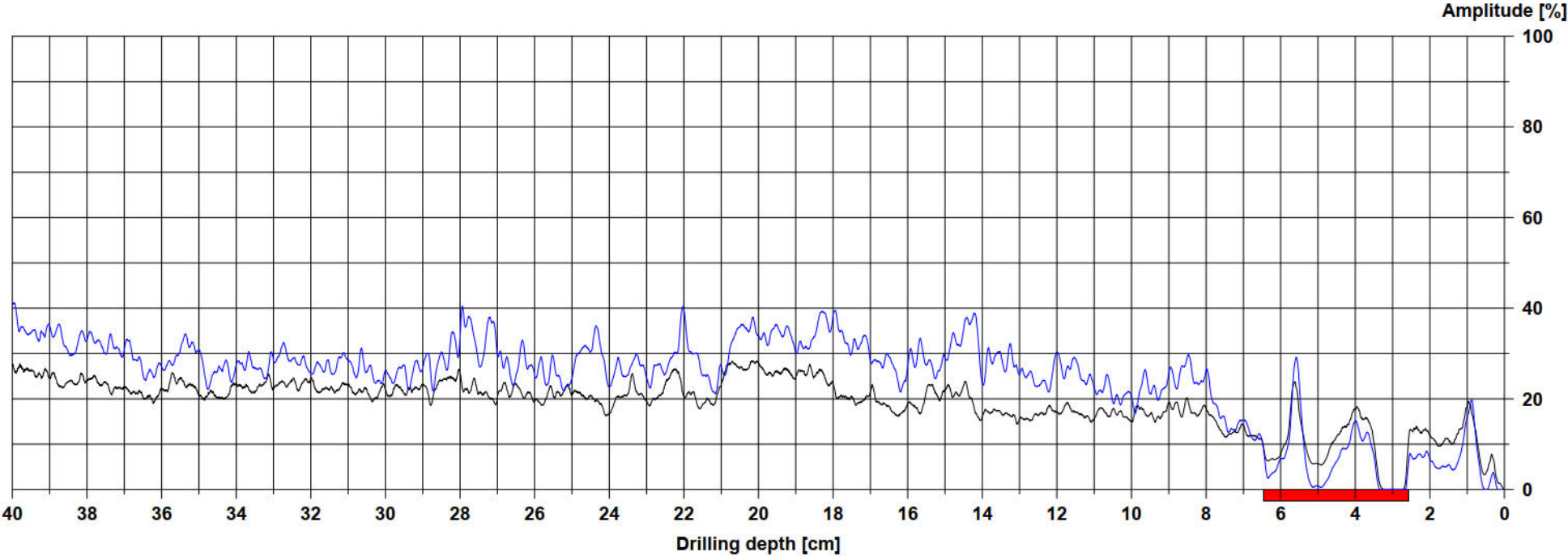
From 1,23 cm to 2,43 cm	: Cavity
From 2,81 cm to 4,60 cm	: Cavity
From 4,58 cm to 6,46 cm	: Incipient decay
From 6,58 cm to 6,96 cm	: Decay
From 9,67 cm to 10,79 cm	: Decay

Comment

Test south side 1.5m AGL. Low level of decay detected between 1 and 11cm

Measuring / object data

Measurement no.:	8	Speed	: 2500 r/min	Diameter:	91,00 cm
ID number	: Blue Coat School	Needle state:	---	Level	: 10cm
Drilling depth	: 40,09 cm	Tilt	: 0°	Direction:	East
Date	: 16.06.2026	Offset	: 88 / 247	Species	: Lime 249
Time	: 12:58:00	Avg. curve	: off / off	Location	: School grounds
Feed	: 150 cm/min			Name	: Beechwood Tree Care



Assessment

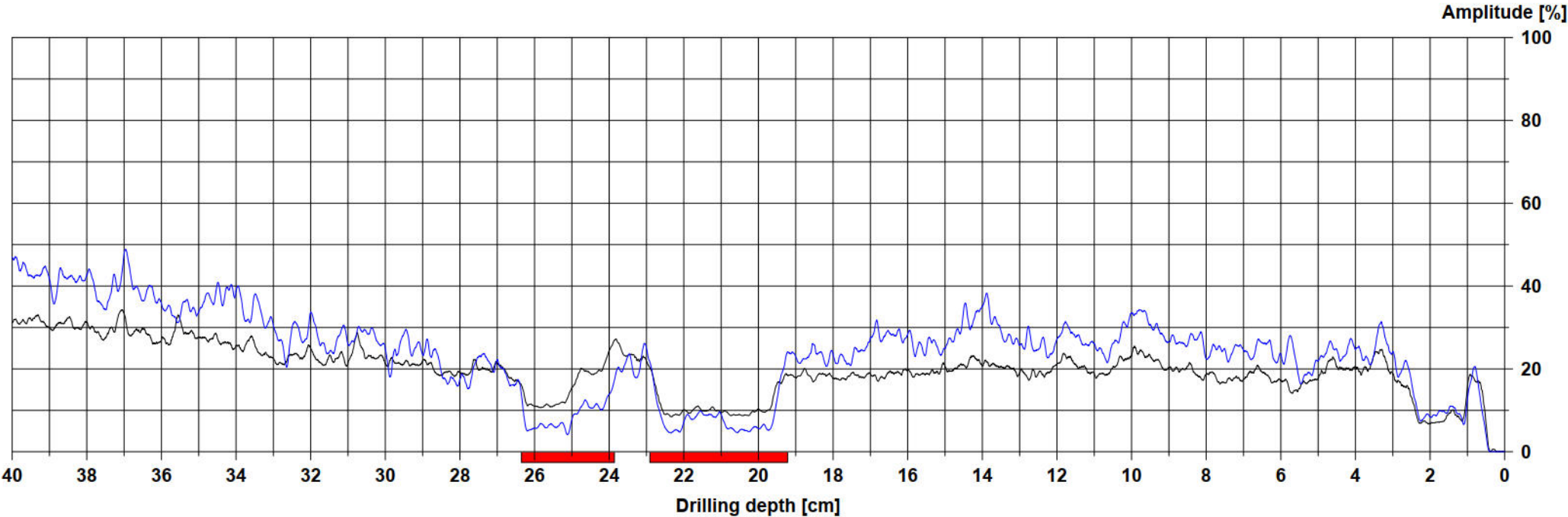
From 2,57 cm to 6,46 cm : Decay

Comment

Test east side close to ground level. Decay detected between 3 and 6cm

Measuring / object data

Measurement no.:	7	Speed	: 2500 r/min	Diameter:	91,00 cm
ID number	: Blue Coat School	Needle state:	---	Level	: 10cm
Drilling depth	: 40,09 cm	Tilt	: 0°	Direction:	North
Date	: 16.06.2026	Offset	: 95 / 248	Species	: Lime
Time	: 12:57:10	Avg. curve	: off / off	Location:	School grounds
Feed	: 150 cm/min			Name	: Beechwood Tree Care



Assessment

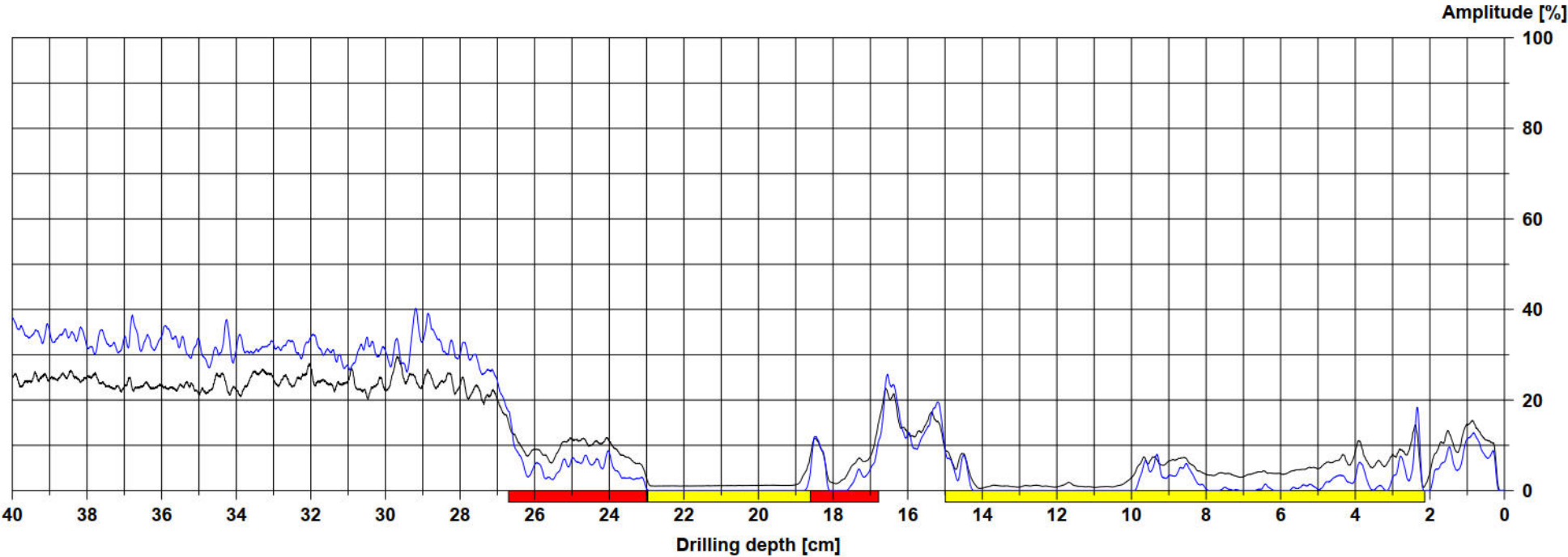
- From 19,22 cm to 22,91 cm : Decay
- From 23,86 cm to 26,35 cm : Decay

Comment

Test north side close to ground level. Incipient decay detected between 17 and 26cm

Measuring / object data

Measurement no.:	9	Speed	: 2500 r/min	Diameter:	91,00 cm
ID number	: Blue Coat School	Needle state:	---	Level	: 10cm
Drilling depth	: 40,08 cm	Tilt	: -1°	Direction:	South
Date	: 16.06.2026	Offset	: 81 / 245	Species	: Lime 249
Time	: 12:59:17	Avg. curve	: off / off	Location	: School grounds
Feed	: 150 cm/min			Name	: Beechwood Tree Care



Assessment

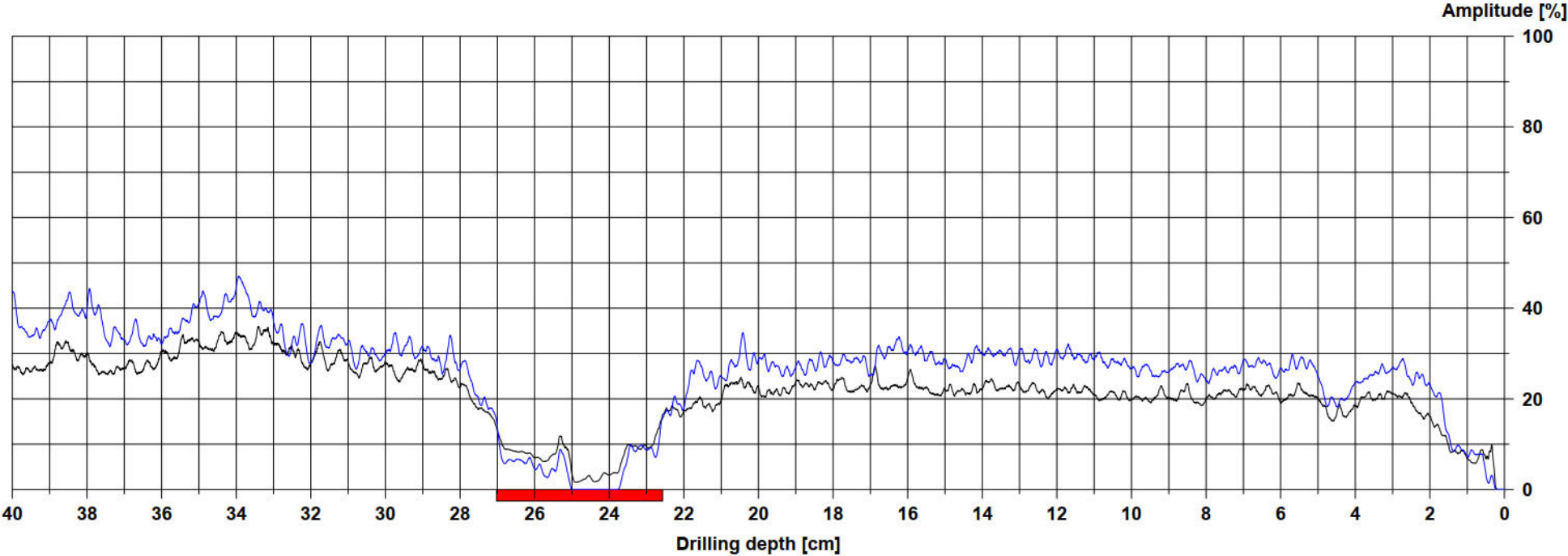
From 2,14 cm to 14,99 cm	: Cavity
From 16,78 cm to 18,61 cm	: Decay
From 18,61 cm to 22,97 cm	: Cavity
From 23,00 cm to 26,70 cm	: Decay

Comment

Test south side close to ground level. Advanced decay and hollowing from 2cm to 26cm

Measuring / object data

Measurement no.:	10	Speed	: 2500 r/min	Diameter:	91,00 cm
ID number	: Blue Coat School	Needle state:	---	Level	: 10cm
Drilling depth	: 40,08 cm	Tilt	: 0°	Direction:	West
Date	: 16.06.2026	Offset	: 81 / 245	Species	: Lime 249
Time	: 13:00:26	Avg. curve	: off / off	Location	: School grounds
Feed	: 150 cm/min			Name	: Beechwood Tree Care



Assessment

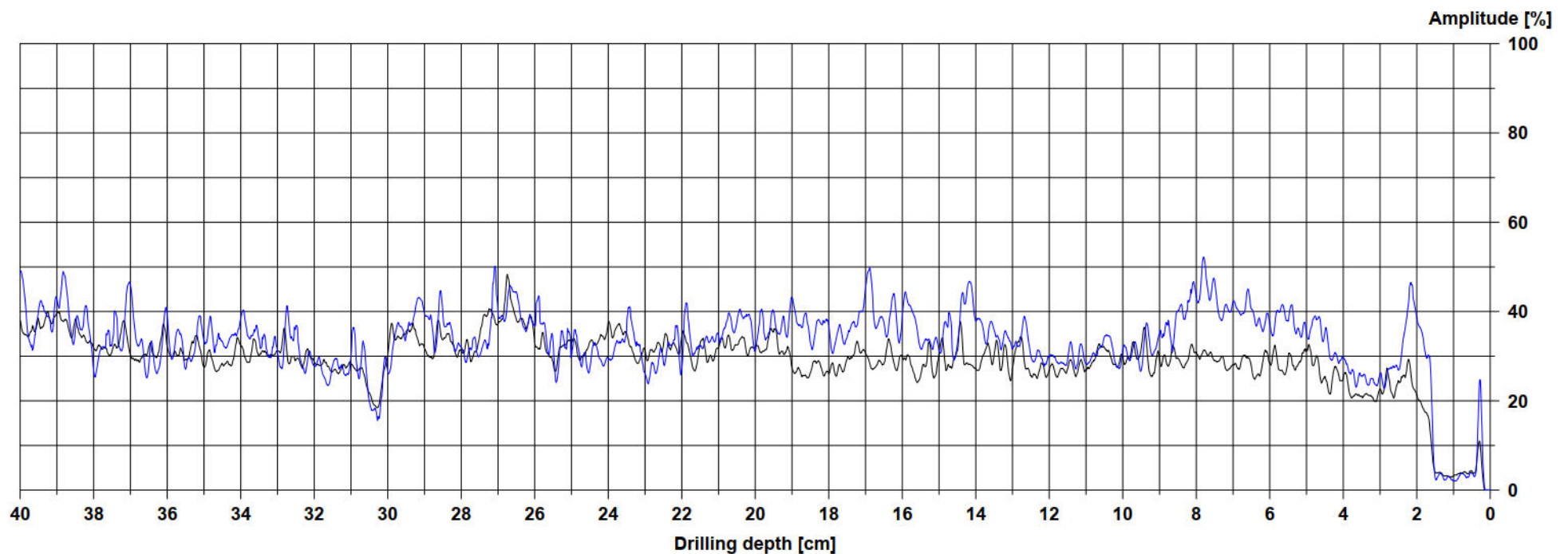
■ From 22,57 cm to 27,02 cm : Decay

Comment

Test west side close to ground level. Decay detected between 22 and 27cm

Measuring / object data

Measurement no.:	18	Speed	: 2500 r/min	Diameter:	95,00 cm
ID number	: Blue Coat School	Needle state:	---	Level	: 150cm
Drilling depth	: 40,08 cm	Tilt	: 0°	Direction:	North
Date	: 16.06.2026	Offset	: 53 / 244	Species	: Beech
Time	: 14:07:28	Avg. curve	: off / off	Location	: School Grounds
Feed	: 50 cm/min			Name	: Beechwood Tree Care



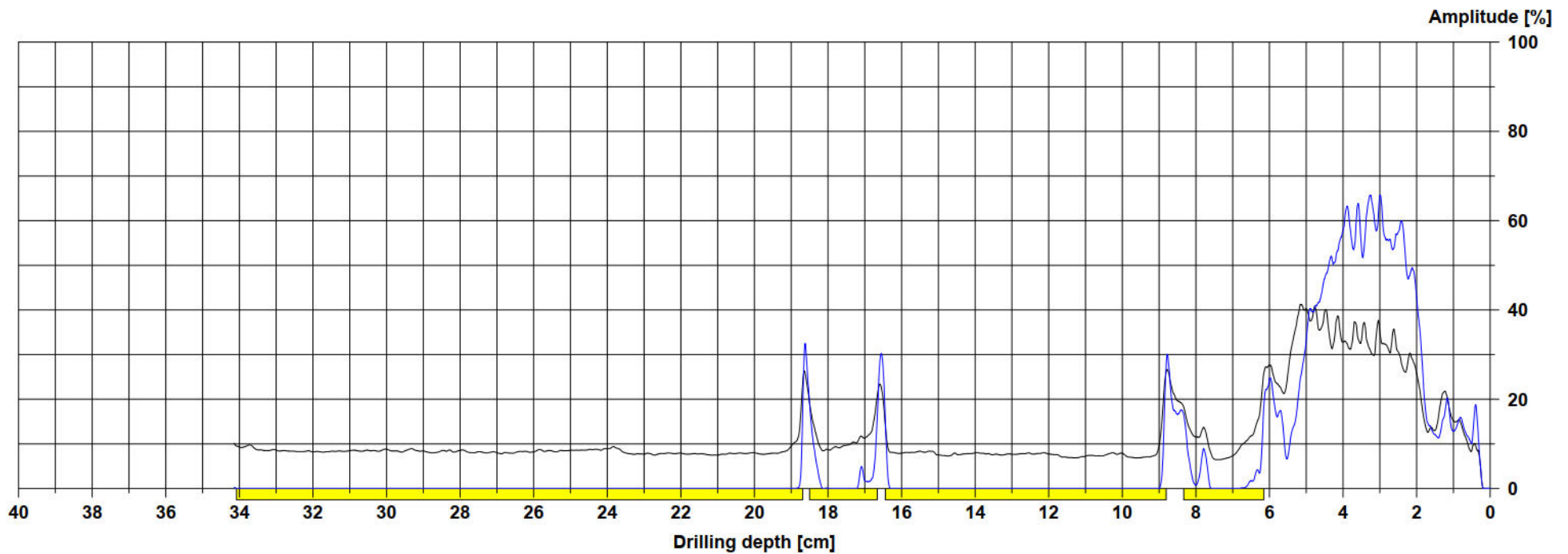
Assessment

Comment

Test north side 1.5m AGL. Irregular amplitude with poor annual increment definition due to incipient decay

Measuring / object data

Measurement no.:	15	Speed	: 2500 r/min	Diameter:	95,00 cm
ID number	: Blue Coat School	Needle state:	---	Level	: 10cm
Drilling depth	: 34,14 cm	Tilt	: 0°	Direction:	East
Date	: 16.06.2026	Offset	: 68 / 247	Species	: Beech
Time	: 14:00:23	Avg. curve	: off / off	Location	: School Grounds
Feed	: 50 cm/min			Name	: Beechwood Tree Care



Assessment

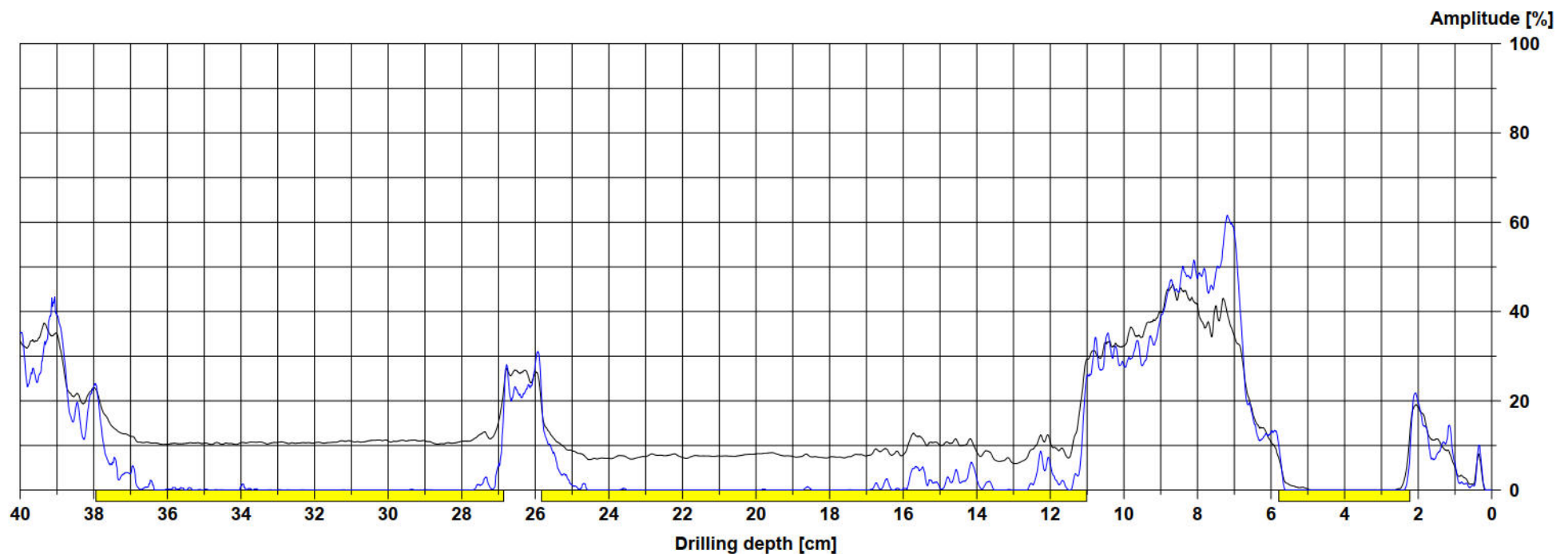
From	6,15 cm	to	8,33 cm	: Cavity
From	8,81 cm	to	16,44 cm	: Cavity
From	16,66 cm	to	18,50 cm	: Cavity
From	18,69 cm	to	34,08 cm	: Cavity

Comment

Test east side close to ground level. Extensive hollowing, drill auto retracts due to cavity extent

Measuring / object data

Measurement no.:	14	Speed	: 2500 r/min	Diameter:	95,00 cm
ID number	: Blue Coat School	Needle state:	---	Level	: 10cm
Drilling depth	: 40,08 cm	Tilt	: 0°	Direction:	North
Date	: 16.06.2026	Offset	: 67 / 248	Species	: Beech
Time	: 13:58:23	Avg. curve	: off / off	Location	: School Grounds
Feed	: 50 cm/min			Name	: Beechwood Tree Care



Assessment

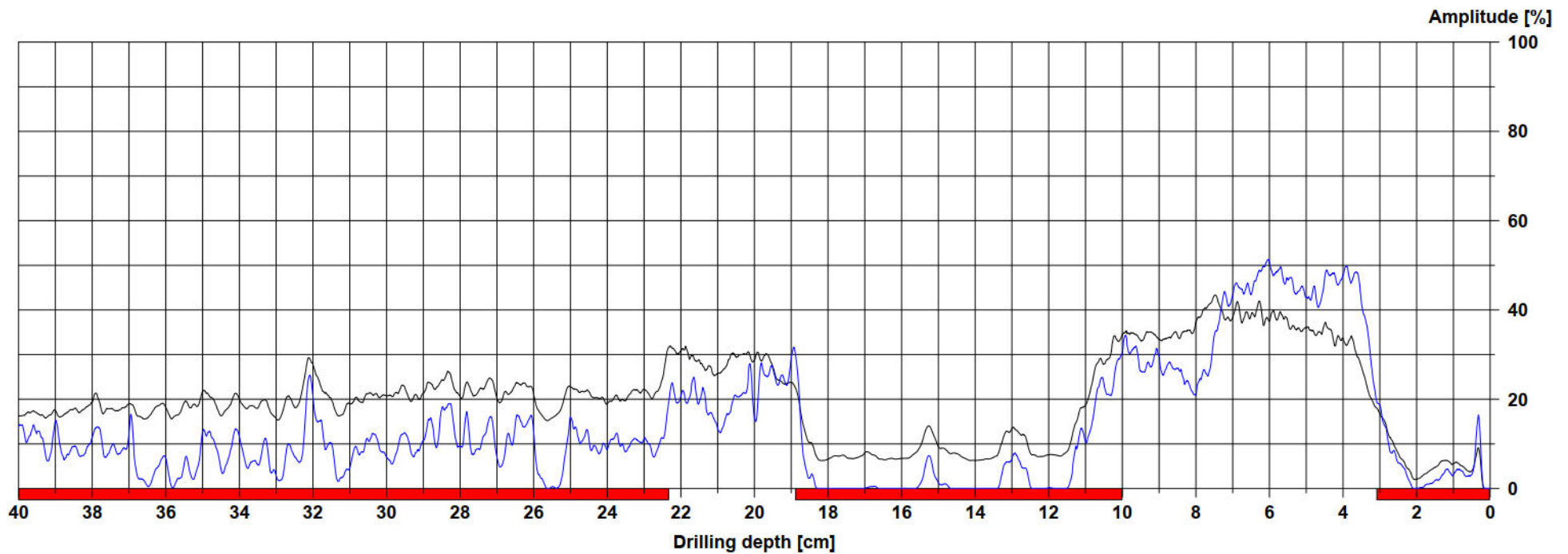
From	2,23 cm	to	5,79 cm	: Cavity
From	11,01 cm	to	25,83 cm	: Cavity
From	26,86 cm	to	37,94 cm	: Cavity

Comment

Test north side close to ground level. Extensive hollowing.

Measuring / object data

Measurement no.:	16	Speed	: 2500 r/min	Diameter:	95,00 cm
ID number	: Blue Coat School	Needle state:	---	Level	: 10cm
Drilling depth	: 40,08 cm	Tilt	: 0°	Direction:	South
Date	: 16.06.2026	Offset	: 63 / 245	Species	: Beech
Time	: 14:03:42	Avg. curve	: off / off	Location	: School Grounds
Feed	: 50 cm/min			Name	: Beechwood Tree Care



Assessment

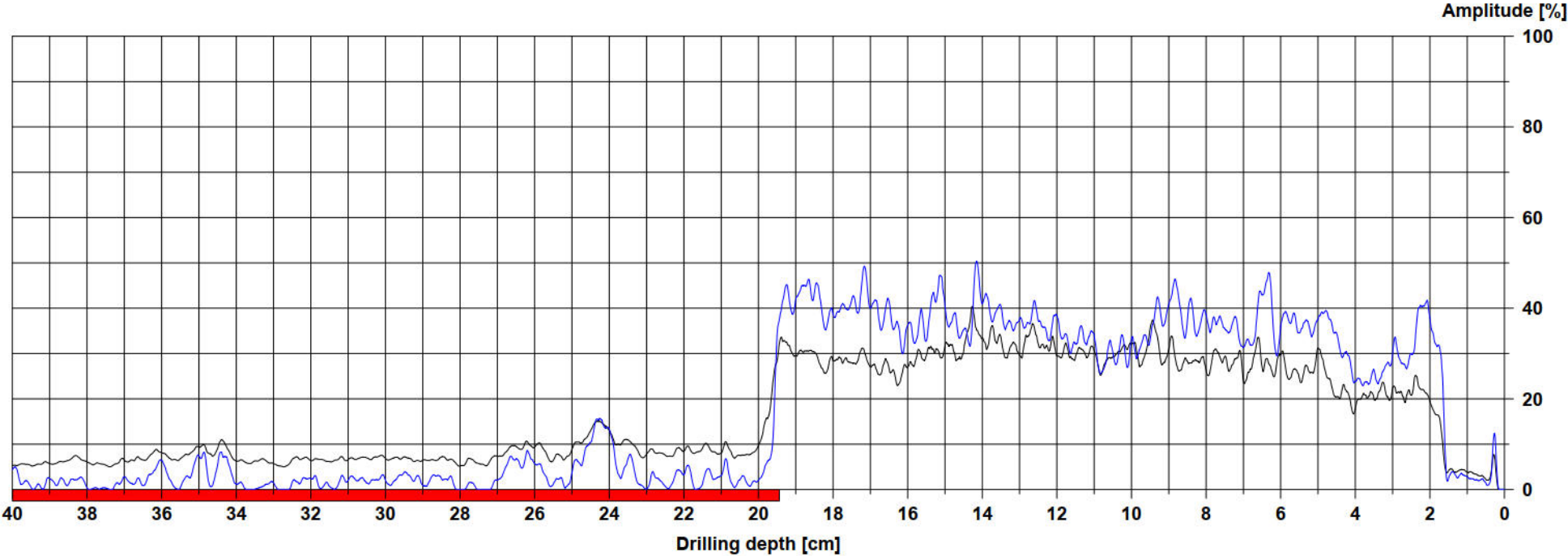
From 10,01 cm to 18,88 cm	: Decay
From 22,33 cm to 40,00 cm	: Decay
From 0,02 cm to 3,08 cm	: Decay

Comment

Test south side close to ground level. Extensive decay detected

Measuring / object data

Measurement no.:	17	Speed	: 2500 r/min	Diameter:	95,00 cm
ID number	: Blue Coat School	Needle state:	---	Level	: 10cm
Drilling depth	: 40,06 cm	Tilt	: 0°	Direction:	West
Date	: 16.06.2026	Offset	: 58 / 246	Species	: Beech
Time	: 14:05:51	Avg. curve	: off / off	Location	: School Grounds
Feed	: 50 cm/min			Name	: Beechwood Tree Care



Assessment

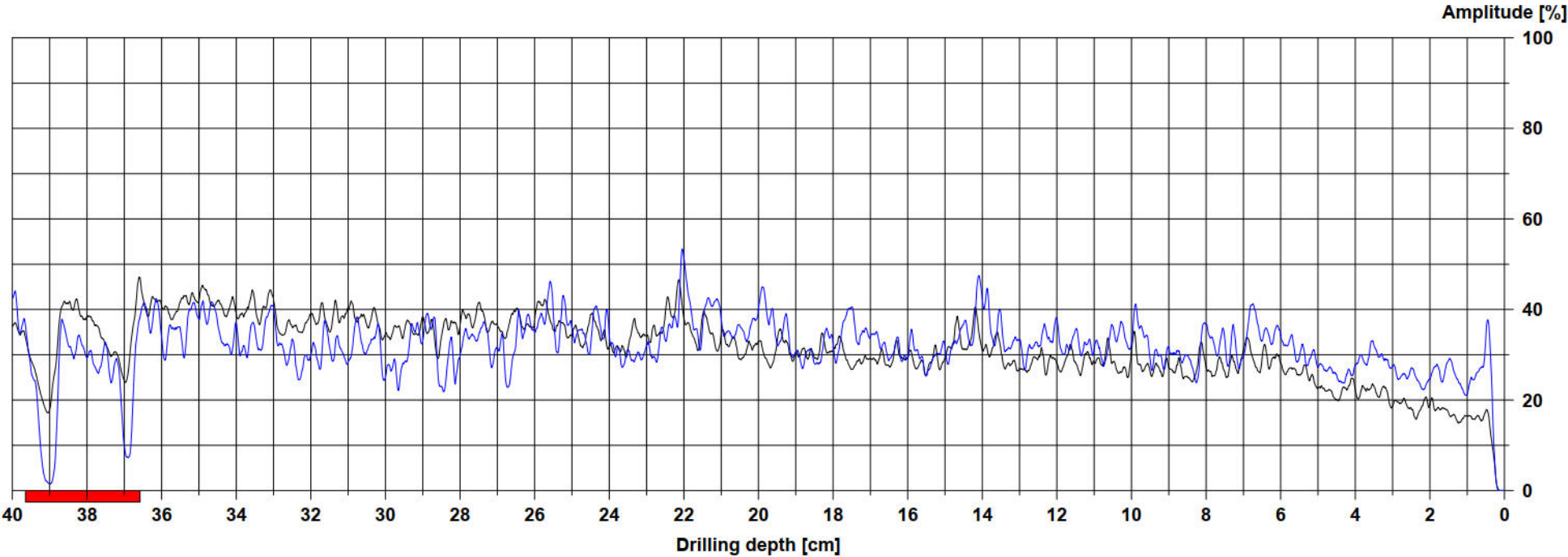
From 19,44 cm to 40,00 cm : Decay

Comment

Test west side close to ground level. Advanced decay detected from 20cm

Measuring / object data

Measurement no.:	20	Speed	: 2500 r/min	Diameter:	70,00 cm
ID number	: Blue Coat School	Needle state:	---	Level	: 10cm
Drilling depth	: 40,10 cm	Tilt	: -6°	Direction:	East
Date	: 16.06.2026	Offset	: 54 / 239	Species	: Beech
Time	: 14:13:34	Avg. curve	: off / off	Location:	School Grounds
Feed	: 50 cm/min			Name	: Beechwood Tree Care



Assessment

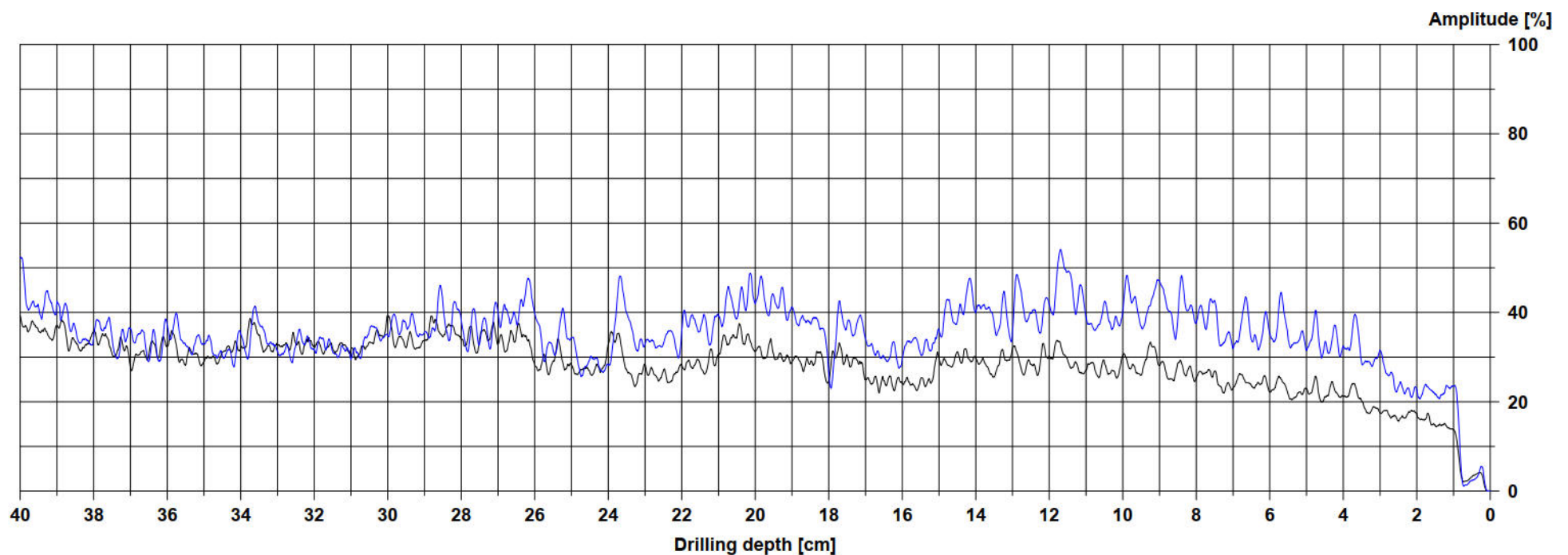
■ From 36,58 cm to 39,65 cm : Decay

Comment

Test east side close to ground level. Irregular amplitude throughout with poor annual incremental definition and decay between 37 and 40cm

Measuring / object data

Measurement no.:	19	Speed	: 2500 r/min	Diameter:	70,00 cm
ID number	: Blue Coat School	Needle state:	---	Level	: 10cm
Drilling depth	: 40,09 cm	Tilt	: -4°	Direction:	North
Date	: 16.06.2026	Offset	: 56 / 241	Species	: Beech
Time	: 14:11:02	Avg. curve	: off / off	Location	: School Grounds
Feed	: 50 cm/min			Name	: Beechwood Tree Care



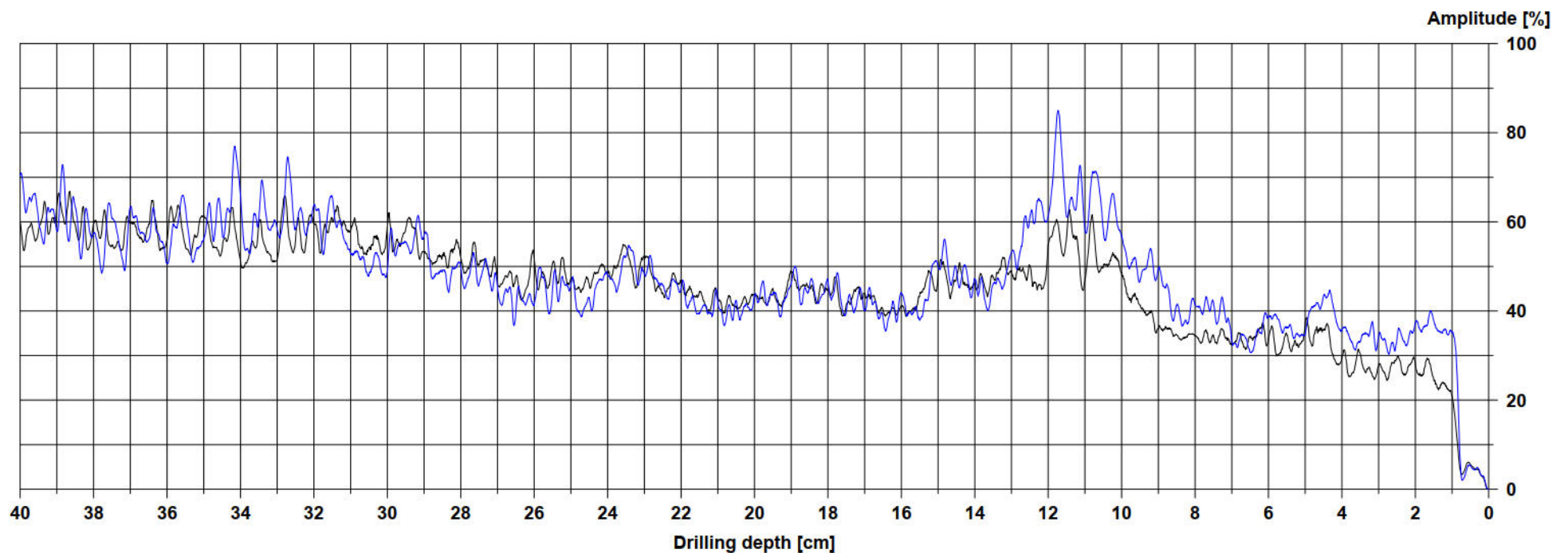
Assessment

Comment

Test north side close to ground level. No significant decay but amplitude is irregular due to incipient decay

Measuring / object data

Measurement no.:	21	Speed	: 2500 r/min	Diameter:	70,00 cm
ID number	: Blue Coat School	Needle state:	---	Level	: 10cm
Drilling depth	: 40,10 cm	Tilt	: -3°	Direction:	South
Date	: 16.06.2026	Offset	: 62 / 239	Species	: Beech
Time	: 14:15:18	Avg. curve	: off / off	Location:	School Grounds
Feed	: 100 cm/min	Name	: Beechwood Tree Care		



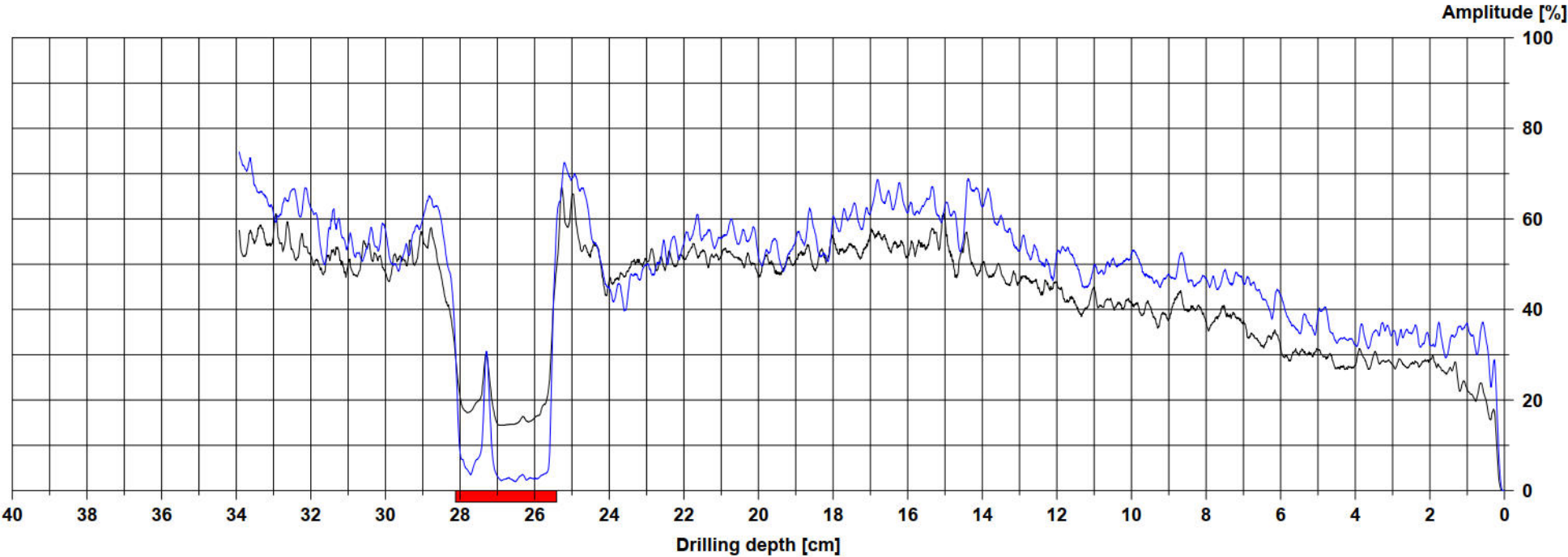
Assessment

Comment

Test south side close to ground level. No significant decay but annual incremental growth is poor due to incipient decay.

Measuring / object data

Measurement no.:	23	Speed	: 2500 r/min	Diameter:	70,00 cm
ID number	: Blue Coat School	Needle state:	---	Level	: 10cm
Drilling depth	: 33,92 cm	Tilt	: 0°	Direction:	West
Date	: 16.06.2026	Offset	: 59 / 244	Species	: Beech
Time	: 14:16:46	Avg. curve	: off / off	Location:	School Grounds
Feed	: 100 cm/min			Name	: Beechwood Tree Care



Assessment

■ From 25,41 cm to 28,12 cm : Decay

Comment

Test west side close to ground level. Advanced decay detected between 25 and 28cm