

Arboricultural Report:
Select lime trees at The Croft, Rolleston-on-Dove

Prepared for:
Rolleston-on-Dove Parish Council
c/o Clerk Mary Danby BA (Hons)
32 Hillcroft Rise
Burntwood
Staffordshire
WS7 6SH

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1. Introduction and background

- 1.1 I received instruction from Rolleston-on-Dove Parish Council via Purchase Order number RPC/2025/048 dated 29 January 2026. I am commissioned to undertake a thorough inspection of two select lime trees growing at the public open space known as The Croft adjacent to Burnside, Rolleston-on-Dove.
- 1.2 The Parish Council has had some routine tree works undertaken by arborist Mr Matt Reinforth who identified two trees as being impacted by fungal decay and potentially in a dangerous condition. I am commissioned to undertake a thorough inspection of these trees, and I have also visually inspected the remainder of the contemporary lime trees to either side. However, the clear focus of my assessment is the two identified trees.
- 1.3 The Croft is an area of public open space maintained by the Parish Council that lies within the village Conservation Area administered by the local planning authority East Staffordshire Borough Council. On this basis, ahead of undertaking works to the trees, it is necessary to provide the local authority with six weeks' prior notification of intended works. Consent cannot be refused under the Conservation Area. However, the notification period is intended to give adequate time for the local authority to consider making a Tree Preservation Order if the works are not considered appropriately arboriculturally justified.
- 1.4 I made my inspection from ground level only on Friday 20 March 2026. Weather conditions were dry and bright with good visibility from ground level. All photographs of the trees were taken during this visit to site.
- 1.5 To aid my observations, I have utilised an IML PD400 microdrill (commonly referred to as a Resistograph) and the resultant pertinent read-out graphs are included at Appendix 1.

2. The trees

- 2.1 Located to the edge of the public open space adjacent to the brook are seven mature broad leaved lime trees (*Tilia platyphyllos*).
- 2.2 These trees are set back from a brick retaining wall adjacent to the brook, typically being spaced off the wall by 1.5–2m to the trunk centres but occasionally only with 0.5m clearance from the outside of the root buttresses to the wall, which often lists towards the brook itself.
- 2.3 The row of trees is roughly orientated north to south. To the western side, there is a gravel path and the trees are interspersed with memorial benches.

Photograph 1: Showing the row of boundary lime trees with the report trees being indicated by red arrows.



Photograph 2: Looking towards the two report lime trees from the roadside.



- 2.4 The report trees feature existing elliptical aluminium tags on the path side, being numbers 0824 and 0825. They are located either side of the bench that features the 'Happy to Chat' sign provided by the Parish Council.
- 2.5 The trees are all contemporary in age, likely being up to 150 years old.
- 2.6 The sole contemporary lime at the end of the row closest to the Spread Eagle pub is of maiden form being around 26–27m in height. However, all of the other component trees including the two report trees have previously been heavily reduced with the main structures being around 14–15m in height but often featuring 4–5m of regrowth above. This is not true pollarding and clearly the trees were reduced while already mature, almost inevitably resulting in unoccluded apical pruning wounds and regrowth being attached to perhaps a relatively thin shell of outer functional wood. For such trees, ongoing, cyclical, crown pruning is usually a necessity.
- 2.7 The two report trees are significant components. However, the value of the collective arboricultural feature is *en-masse* and undoubtedly makes a significant contribution to the visual amenities of the village.
- 2.8 Due south of report tree 0824, there is an overhead BT cable that runs through the side of the crown to a distribution pole located opposite the car park entrance into Rolleston Club.

Tree 0824

- 2.9 The trunk has a measured diameter of 760mm at around 1.5m above ground level. This tree was previously reduced to a main structure of around 12m and currently stands at an overall height of approximately 16–17m with regrowth above previous pruning points having a maximum diameter of around 120mm.
- 2.10 Light basal sucker growth is evident around the base but does not obscure it from detailed assessment. There are multiple cavities between more pronounced root buttresses. These reveal many old, largely senescent fungal fruiting bodies, most likely *Ganoderma adspersum*.
- 2.11 On the southern side of the trunk within the fissure between the two main buttresses, there also appears to be some desiccated old ascomycete fungal fruiting body remains which I suspect are those of brittle cinder fungus (*Kretzschmaria deusta*). Some minor embryonic fungal fruiting bodies are also suspected between one of the buttress fissures on the path side. However, this does not look likely to be the imperfect stage fruiting bodies of the brittle cinder fungus, and it will have to be allowed to develop in order to provide an accurate identification.

Photograph 3: Showing the cavity in lime tree 0824 with the red arrow pointing to old fungal fruiting bodies.



- 2.12 The tree retains reasonable crown vigour. However, the main structure does have a fairly clear growth bias towards the public road of Burnside and undoubtedly would fall across the highway should it fail at near ground level.

Tree 0825

- 2.13 This tree has a measured trunk diameter of 690mm. It was previously reduced to an approximate height of 10–11m and currently has an overall height of around 16–17m. It also has a positive weight bias clearly in the direction of the public road on the opposite side of the watercourse, albeit it would fall short of the Rolleston Club should it fail in this direction.
- 2.14 On the northern side of the trunk base, there is a longstanding decayed seam extending around 1.2m to the point of some old *Ganoderma adspersum* fungal fruiting brackets. However, it is clear that a necrotic bark seam extends above this point to around 2.1m, having been partially excavated by tree creepers and woodpeckers; a further clear indication of its dysfunction. Further *Ganoderma adspersum* fungal brackets are evident on the southern side of the trunk base and here there is notable bark bleeding points up to around 2.2m above ground level indicating a *Phytophthora* infection and a degree of bark necrosis.

Photograph 4: Showing lime tree 0825 with bark bleeding evident and a red arrow pointing to old fungal fruiting bodies.



- 2.15 The tree features minor sucker growth, but this does not obscure the inspection. Overall vigour is fair. However, the crown is rather suppressed by the previous report tree and the adjacent lime of the northern side. Although its vigour is less than optimum in the upper crown, there is no significant dieback. Dead branches are evident, but the outer sections have previously fallen, leaving relatively short deadwood stubs.

Invasive testing

Tree 0824

- 2.16 The main opening on the side of the brook was surrounded by heavily decayed material that could easily be removed by hand revealing a substantial basal cavity.
- 2.17 In addition, three test drillings were made. Drilling D1 was made into the main root buttress on the path side. This is considered the primary root buttress providing structural stability to the tree.

Photograph 5: Undertaking test drilling D1 on lime tree 0824 with the red dot indicating the location of test drilling D2.



- 2.18 This test drilling was made at around 200mm above ground level and revealed a residual wall thickness of around 19cm (approximately 17–18cm of structural wood) ahead of an entire cavity.
- 2.19 Drilling D2 was made in the same vertical plane as D1 but at around 0.8m above ground level, just above the height of the main swelling where the lower buttress merges into the main trunk. At this point, the outer residual wall thickness was around 14cm and the boundary with the central decayed zone indicated a slow progressive decay with poor compartmentalisation.
- 2.20 Test drilling D3 was made on the southern side of the trunk into the suspected necrotic bark seam above what is thought to be brittle cinder fungus decay with the test drilling being made at around 0.5m above ground level. This revealed entirely decayed material offering no resistance with the necrotic and decayed area coalescing with the opening on the side of the brook. In total, this equates for around 25–30% of the lower trunk circumference.

Tree 0825

- 2.21 The opening associated with the main fungal brackets is self-evident on the north western stem. At around the height of the upper bracket, test drilling D4 was made into the path side of the stem and revealed a residual wall thickness of only around 6cm. In structural terms, this is very thin. To the northern side of this narrowed, flattened section of stem, there is an abrupt edge to the side of the open cavity. At which point, there is likely to be some ram's horn wound wood formation (obscured externally by bark). However, there is also some indications of possible propagation cracking, which is a primary failure symptom in a hollowed tree trunk.
- 2.22 Test drilling D5 was made at around 1m above ground level into the seam with obvious *Phytophthora* staining and above the historic *Ganoderma* brackets. This confirmed that the outer part of the trunk is entirely necrotic with only residual, heavily decayed tissue between 10cm and 30cm penetration, which is offering no structural support.
- 2.23 The final test drilling D6 was made into the lower main root buttress on the side of the path. As suspected, this showed better quality structural wood to a depth of around 27cm before a progressive decayed area became an open cavity.

3. Appraisal

- 3.1 Both report trees were found to be extensively decayed within their lower trunks. At the interface with remaining functional wood at key locations in terms of the structural integrity of the trees, there is minimal indication of strong compartmentalisation and it appears that current decay is progressive.
- 3.2 In the case of tree 0824, although the main root buttress on the southern side likely retains sufficient residual material, there is considered an unacceptable risk of cross-sectional failure at around 0.7m above the ground. At which point, the residual thickness is minimal. Although the main cavity is on the compression side, there is an increased cross-sectional flattening due to torsion damage.
- 3.3 Further reducing the tree would only provide a short term restoration of an acceptable safety factor and any regrowth would be largely suppressed by that of adjacent trees.
- 3.4 The tree represents a significant risk in terms of falling across the highway and the likelihood of damaging the retaining structure adjacent to the brook.

- 3.5 In respect of tree 0825, again the main root buttress on the tension side is adequate. However, the tree is clearly becoming a series of co-independent vertical columns with minimal connectivity, being segregated by substantial seams of decay. Given the weight bias of the tree and the hazard it poses, again it would require a substantial reduction in height, which does not provide a cost effective or long term management strategy for such amenity trees in this setting.

4. Conclusions and recommendations

- 4.1 The two identified report trees are extensively decayed and should be removed on safety grounds.
- 4.2 Invasive testing confirms that the trees pose an unacceptable long term threat in terms of failing at near ground level and inevitably towards the public road. In this instance, further substantial pruning to reduce their height is discounted as this would only provide a short term solution, itself with a significant detrimental impact to the visual amenities of the wider collective feature which historically has been managed systematically.
- 4.3 Replanting is important. However, it will necessitate stump grinding and ground reinstatement (inevitably much of the central stump regions will be decayed, recessing into the ground). Lime may be considered as a species for replanting especially for tree 0824 which receives good light illumination. However, given that they are unlikely to match adjacent limes in terms of structural growth within the remaining expected useful life expectancy of the remaining feature, it would not be inappropriate to consider replanting with other suitable shade tolerant trees and dawyc beech (*Fagus sylvatica* 'DAWYCK GOLD') and/or fastigate hornbeam (*Carpinus betulus* 'FRANS FONTAINE') might be suitable candidates, albeit this is by no means an inclusive list.
- 4.4 The trees were assessed during the early stages of the current closed bird nesting season. Given the multiple openings in the trunks, it is recommended that the trees are not removed until the bird nesting season has finished in around July 2026 (subject to monitoring) and they are considered an acceptable risk in this regard.
- 4.5 The trees must be removed in a way to safeguard the remaining trees and infrastructure around them, noting also the presence of BT service wires.

Signed:



Ben Bennett BSc (Hons) For, Cert Arb (RFS), MArborA
Director, BB Trees Ltd

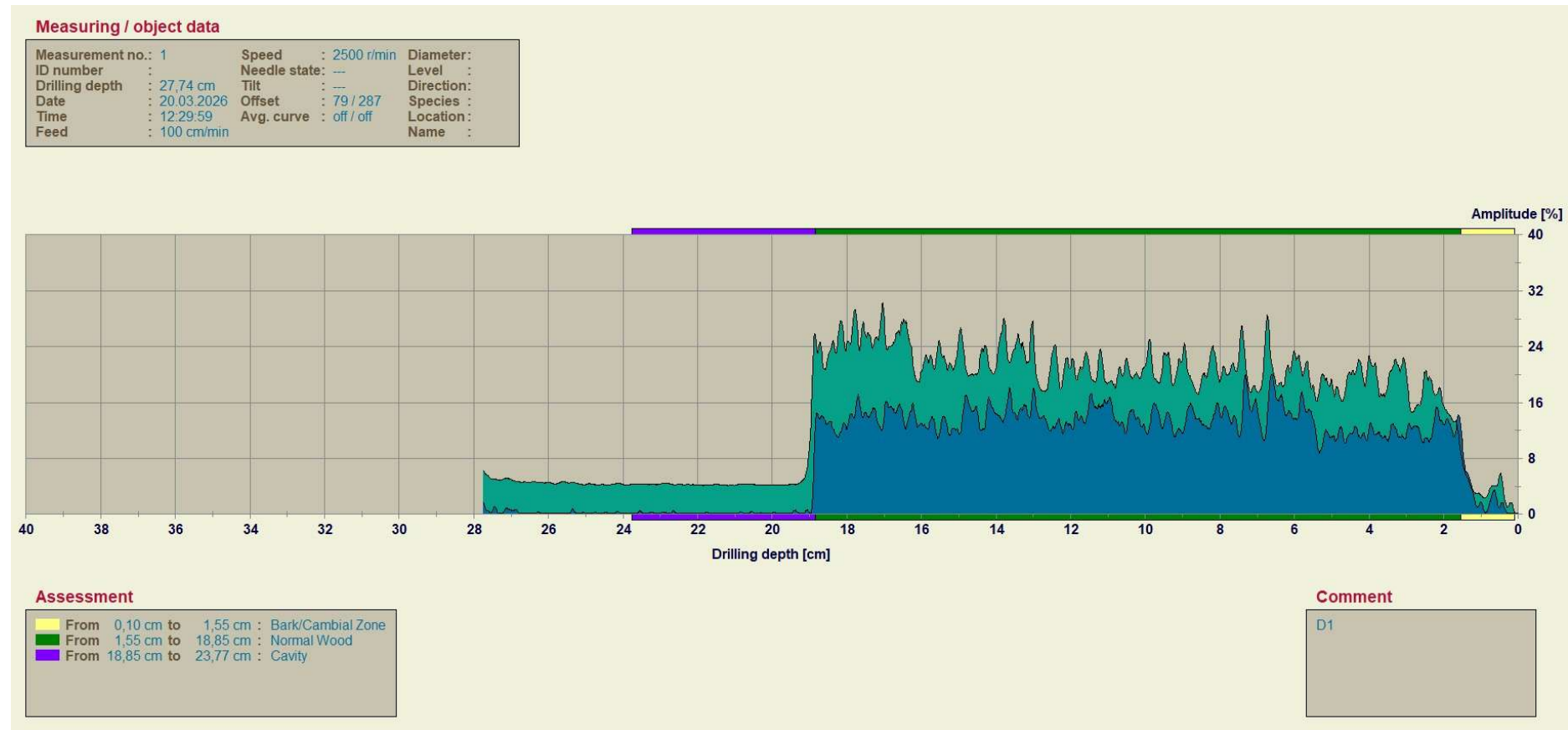
Appendix 1: Resistograph decay detection methodology and read-out graphs

Methodology

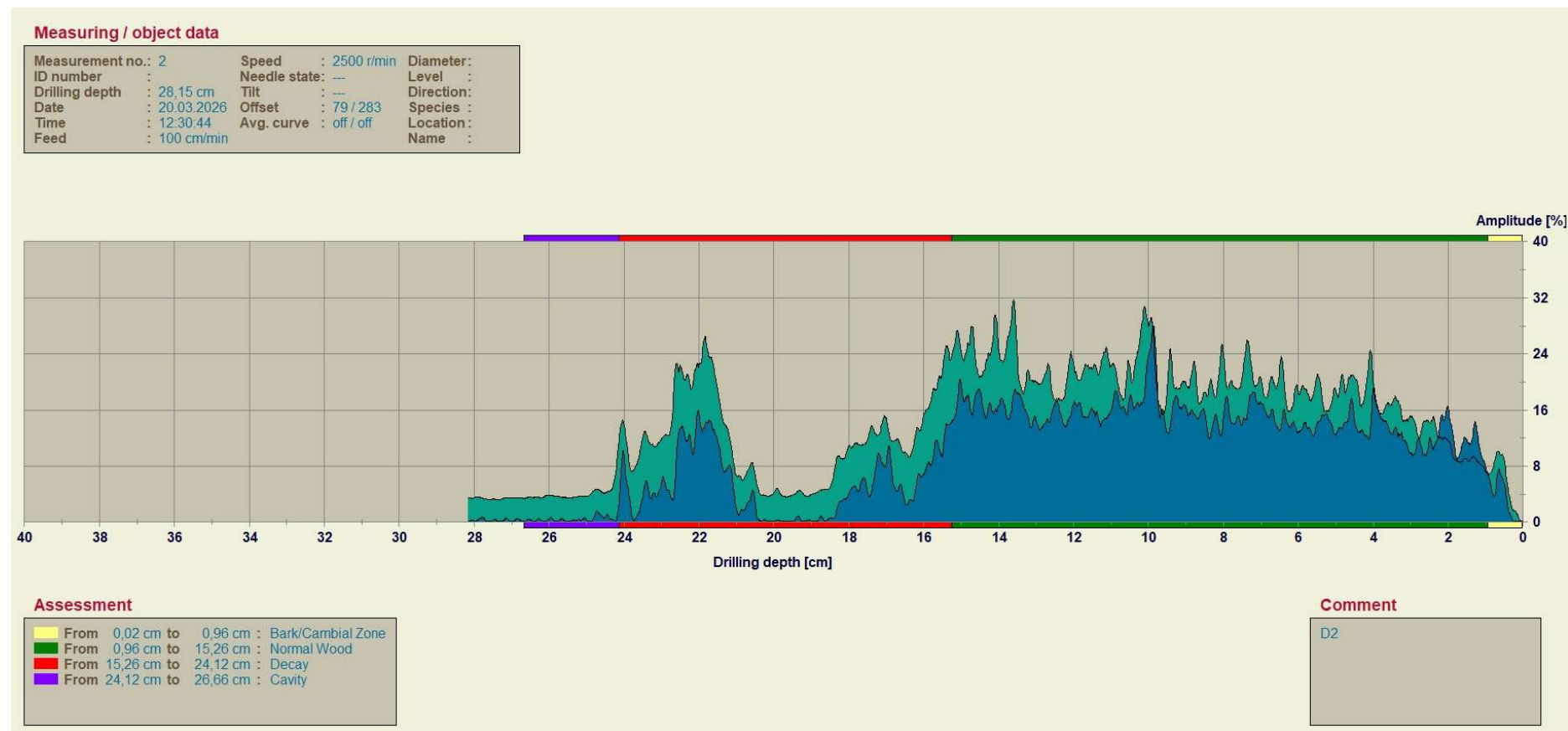
- A1.1 Throughout the course of my experience as an Arboriculturist, I have gained a sound understanding of tree biomechanics and the nature of decay caused by principal decay organisms. I have employed the Visual Tree Assessment methodology during my assessment. I have received intensive training in this methodology and its application and have been assessed at Elite Practitioner status.
- A1.2 Invasive investigations have been undertaken using an IML PD400 Resistograph, in this instance, to assess the potential extent of internal decay within the lower trunk.
- A1.3 The Resistograph measures the relative density of wood by drilling into the tree with a flexible 3mm diameter drill of 400mm in length. The model of Resistograph used is the latest incarnation of well-proven technology and is capable of measuring wood quality and the presence of internal defects such as included bark or decay-altered wood. In simple terms, the higher the quality of the wood encountered, the greater the resistance offered to the drilling force and a higher output is recorded on the graph.
- A1.4 The read-out graph identifies the depth of penetration for the testing (read right to left) along the horizontal (Z) axis. The vertical (Y) axis records the amplitude which is a relative measurement as to the density of the encountered wood.
- A1.5 The read-out graph consists of two independently recorded, overlaid measurements. The green graph is the resistance measured at the tip of the drill and is equal to the torque force required to drill into the wood. The blue graph relates to the feed rate ie the force required to drill through the wood at a predetermined rate.
- A1.6 Although a highly accurate precision tool, the Resistograph is only capable of interpreting the quality of wood within a very small area subject to the drilling. Whilst this is important in reducing the damage to the assessed tree, this tool does not measure wood quality beyond the area of testing. However, multiple testing points can be made in order to map potential defects.

Resistograph read-out graphs

Test drilling D1



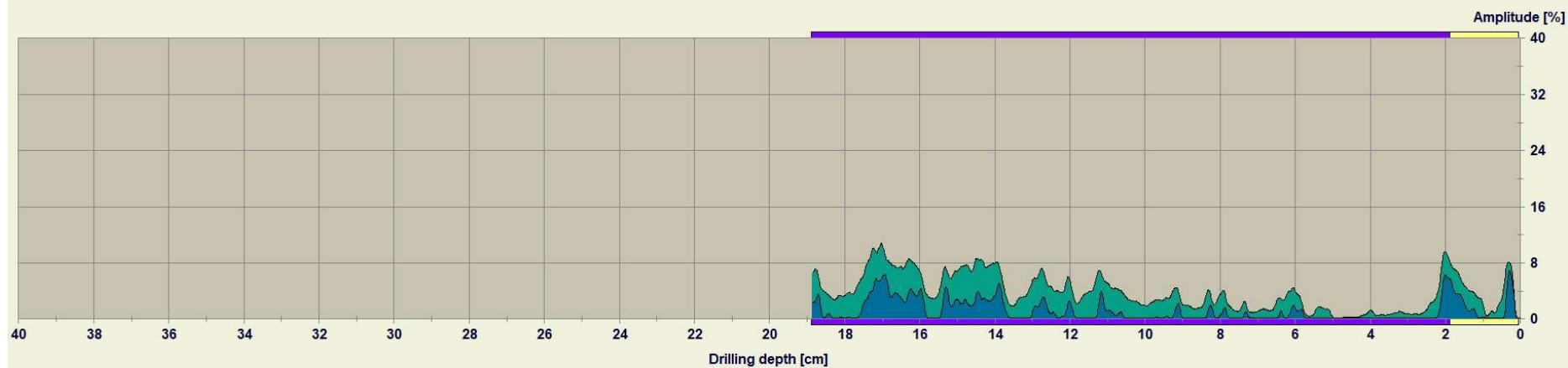
Test drilling D2



Test drilling D3

Measuring / object data

Measurement no.:	3	Speed :	2500 r/min	Diameter:	
ID number :		Needle state:	---	Level :	
Drilling depth :	18,86 cm	Tilt :	---	Direction:	
Date :	20.03.2026	Offset :	80 / 281	Species :	
Time :	12:31:24	Avg. curve :	off / off	Location :	
Feed :	100 cm/min	Name :			



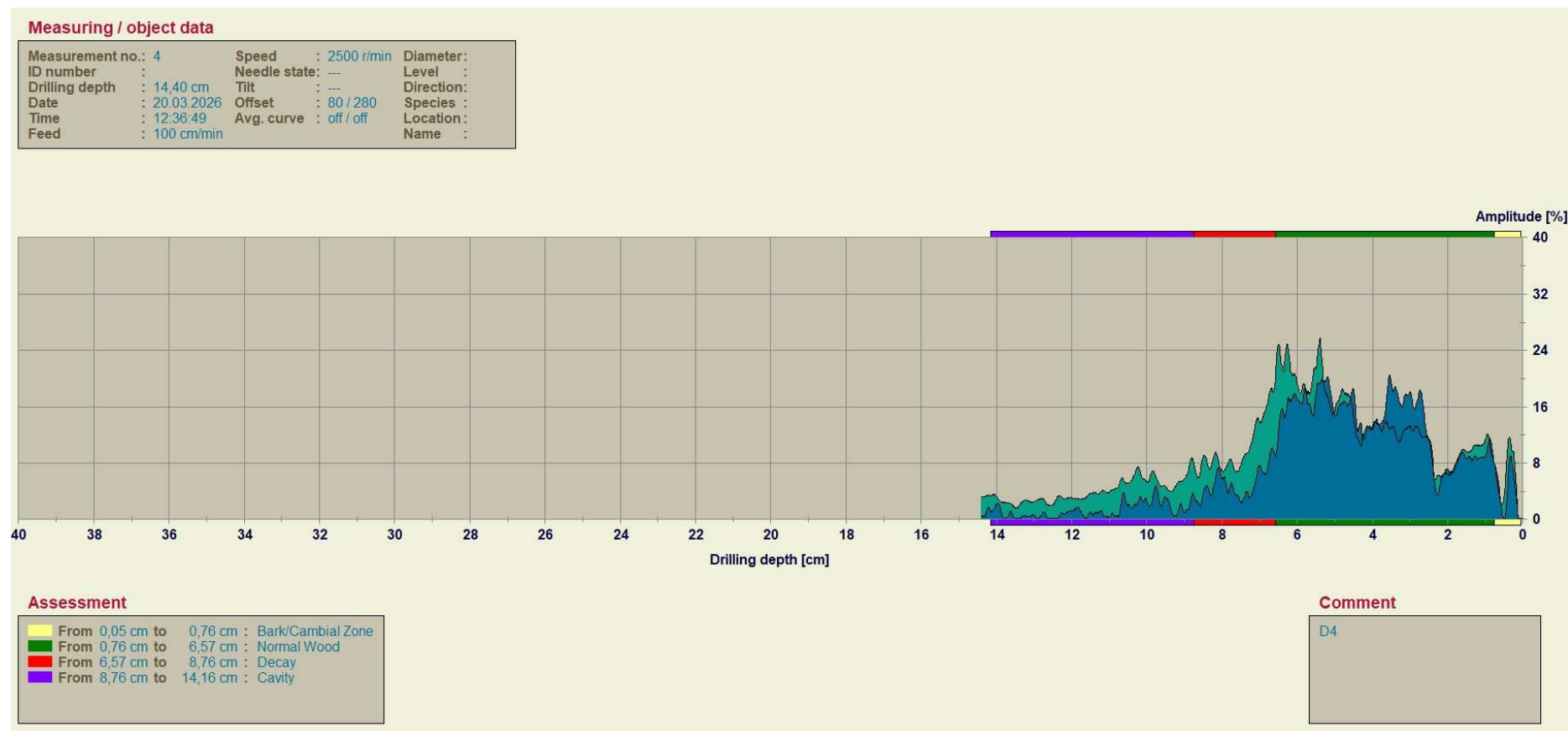
Assessment

From 0,05 cm to 1,88 cm :	Bark/Cambial Zone
From 1,88 cm to 18,90 cm :	Cavity

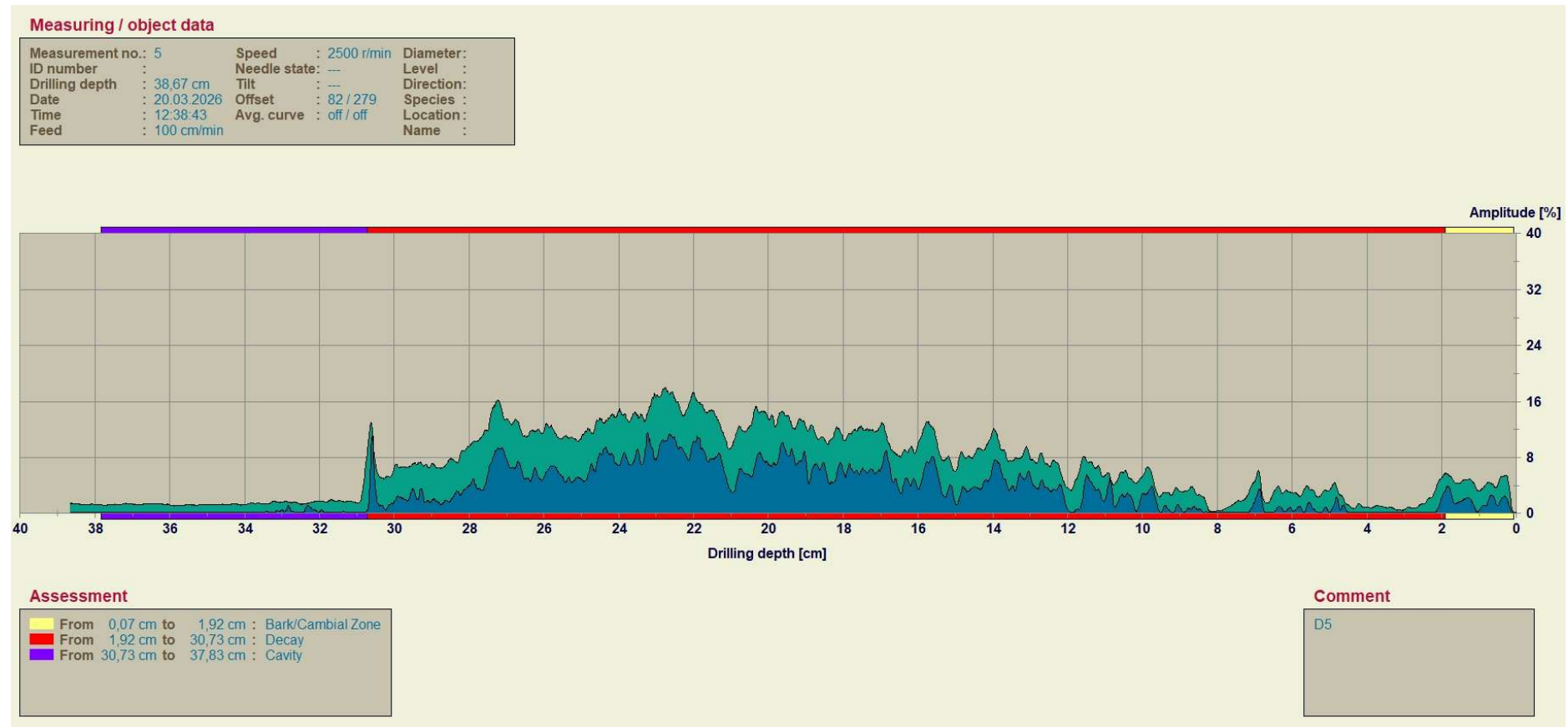
Comment

D3

Test drilling D4



Test drilling D5



Test drilling D6

