



ARBORICULTURAL SURVEY REPORT

SITE: CHURCH FARM BARN, HALLS LANE, WALTHAM ST.
LAWRENCE, RG10 0JB

REPORT DATE: 23 NOVEMBER 2020

REFERENCE: 84/1477/11/20/2020

ON BEHALF OF: ALASTAIR BROOKER

AUTHOR: Mark Harrison, MarborA NDarb



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DIGITALLY APPENDED RESI MEASURMENTS (IN PDF FORMAT)



1. INSTRUCTION

- 1.1. This tree survey and report was commissioned by Alastair Brooker of ANB Groundcare on 29 October 2020 to carry out a level 2 ground level visual tree assessment (VTA), internal investigations and report into the health and safety of 2 x Horse Chestnut Trees and 1 x Holly tree at Church Farm Barn, Halls lane, Waltham St. Lawrence, RG10 0JB at co-ordinates 51°29'10.9"N 0°48'24.8"W.

2. TERMS OF REFERENCE

- 2.1. To undertake a level 2 - basic assessment (see assessment level at appendix 2) of the health and safety for trees within the ownership of Alastair Brooker in line with present industry best practice by way of a 360° ground level inspection, assessment and examination of external features only — described as the 'Visual Tree Assessment' (Mattheck and Breloer, 1994 and Tree Hazard Assessment (Lonsdale, 1999).
- 2.2. To provide management recommendations for the safe retention of the trees inspected based on their health and condition and the type and frequency of site use.

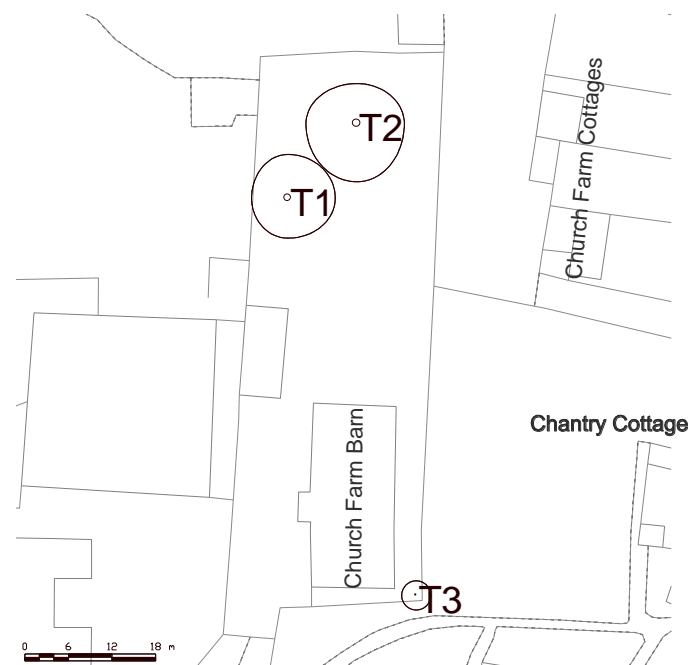
3. Scope and Limitations of Report:

- 3.1. The purpose of this report is to advise on the health and safety of trees under the management of Foxwood, Halls Lane and methods by which the risks identified can be managed to comply with legal requirements which establishes a duty of care owed to persons using the site (Occupiers' liability act 1984).
- 3.2. I visited the site on 29 October 2020, the weather was clear and dry and posed no hindrance to inspections.
- 3.3. Trees subject to Tree Preservation Orders (TPO) or situated within a conservation area are afforded statutory protection. Formal written consent is required from Royal Borough of Windsor and Maidenhead for any trees covered by a TPO prior to any non-exempted work being undertaken. The council will require notification of works to trees within conservation areas.
- 3.4. This survey and report are concerned with arboricultural aspects only and report on the health and safety of the trees based on both their external and internal physiological and structural condition and information provided.
- 3.5. No tissue samples were taken



- 3.6. Internal investigations were carried out using an IML 400 resi drill (measurements appended).
- 3.7. No soil samples were taken or soil analyses carried out and the risk of tree-related subsidence to structures has not been assessed.
- 3.8. No root collar excavations have been made.
- 3.9. Consideration should be given to the timing of the proposed tree works to avoid the active growing period of trees. Tree work should ideally be carried out during the dormant period from November through to February and then again from June to August.
- 3.10. Although considered and wildlife habitat potential highlighted, no specific wildlife assessment has been carried out. It should be noted that The Wildlife and Countryside Act 1981, as amended by the Countryside Rights of Way Act 2000 and Conservation - Natural Habitats -Regulations 1994 provides statutory protection to birds, bats and other species that inhabit trees.
- 3.11. The official bird nesting season runs from 1st March through to the 31st July (Natural England) depending on weather conditions, consideration must also be given to the potential for nesting birds.
- 3.12. Because trees are dynamic, living organisms, changes in their environments will influence their health and safety. This report deals with what was visible at the time of inspection. It cannot account for extreme weather conditions or subsequent mechanical damage.

4. SITE PLAN





5. SURVEY METHOD

- 5.1. Tree heights were estimated visually.
- 5.2. The average crown radii were measured using Leico Disto Laser Measure.
- 5.3. The diameter at breast height (trunk measurement taken at 1.5 m above ground level) was taken using a diameter tape.

6. ASSESSMENT

- 6.1. Tree 1 has a small cavity opening on the southern side of the stem base (figure 1). The internal integrity was tested using the IML 400 resi drill (appended) which indicated significant decay to the base of the tree such that its stability has been compromised and it is recommended that the tree is removed.

Figure 1 - Cavity opening to the base of tree 1.



- 6.2. Tree 2 has a large *Perenniporia fraxinea* bracket to the base (figure 2). An internal investigation of the stem base indicated that the internal integrity of a large part of the main stem has been compromised leaving 18 – 30cm sound wood on the southwestern aspect of the stem base. The amount of sound wood remaining would allow for short term retention in conjunction with some significant pruning of the canopy. This would however, only be a short term remedy as the decay is likely to progress further through the stem. For this reason it is recommended that the tree is removed and a replacement tree planted to provide continued long term tree cover.



- 6.3. The replanting Horse Chestnut trees to replace trees 1 and 2 is not recommended as they are susceptible to a number of prevalent pests and diseases.

Figure 2 - *Perenniporia fraxinea* bracket to the base of tree 2.



- 6.4. Tree three is an early mature Holly which has grown adjacent to the boundary wall. Significantly Ivy clad, the foliage which extends out of the ivy appears small in size and a thin density. The tree is touching the garden wall and is causing displacement. It is recommended that it is removed to prevent further damage to the wall.

7. TREE INSPECTION AND DETAILS

Tree Schedule Key

Tree Ref No:

This relates to the numbers on the plan. Normally the trees will follow site sequence numbers. Where trees have been tagged both the site sequence number and the tag number will be used as the tree reference number where room on the plan allows. Individual trees are not prefixed. Those prefixed with a G, W or H represent a group, woodland or hedge respectively.

Species:

Latin names are given by default. Where the 'common name' is given they are shown in parentheses.

Diameter:

This is the stem diameter at 1.5 metres ('breast height') above ground level, given in millimetres.

**H (Height):**

The height of the tree measured where possible or estimated and recorded in metres.

Canopy Spread (Crown radius):

The average crown spread taken from the trunk to the tips of the live lateral branches following the compass points North, East, South and West given in metres.

Age:

Age assessment is based on growth stages rather than actual age in years and are recorded as follows

Young

Semi Mature – having reached up to 1/3 life expectancy

Early mature - having reached 1/3 of the expected life expectancy and is transitioning into maturity.

Mature - over 2/3 life expectancy

Over-mature - fully mature, past peak condition and beginning to decline

Veteran - trees of interest biologically, aesthetically or culturally because of significant age.

Physiological condition:

The overall vitality of the tree recorded as good, fair, poor or dead

Structural condition:

An assessment of the health and vigour of the tree compared to what would normally be considered typical of a healthy tree of the species. Condition categories are given as good, fair, poor or dead.

Life Expectancy:

An estimate of the potential worthwhile remaining contribution – future life expectancy of the tree(s) in the present setting given normal circumstances, given in years (< = less than > = greater than) categorised <10 years, 10 – 20 years, 20 – 40 years and > 40 years.

Site Features

Aspects of the site which might be impacted by or have an impact on the tree.

Comments/Notes:

Any notable diseases, symptoms or conditions observed. Any notes considered relevant are recorded here including local features which may be affected by or affect the tree

Recommendations:

Recommendations for work.



Priority:

Suggests a time period in which any work required should be undertaken.

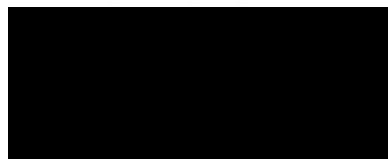
Assessments are based on their condition on the day of inspection and cannot account for future changes in circumstances.

All tree pruning works should be carried out to BS 3998: 2010 Recommendations for Tree Works

Signed

Mark Harrison

23/11/2020





TREE SCHEDULE

Site: CHURCH FARM BARN, HALLS LANE, WALTHAM ST. LAWRENCE, RG10 0JB

Date: 29 October 2020

Type	Tree no.	Tag no.	Species	Diameter / mm	Height / m	Canopy spread / m				Condition		Life Exp	Site Features	Comments	Recommendations	Priority
						N	E	S	W	Physiological	Structural					
T	1	Aesculus hippocastanum (Horse Chestnut)	Mature	1060	17	6	6.5	5.5	5	Fair	Poor	<10	Wall/fence within canopy spread.	Ivy clad. Basal decay Cavity on stem - significant cavity area at the stem base (see resi measurements).	Remove.	3
T	2	Aesculus hippocastanum (Horse Chestnut)	Mature	1150	17	5.5	6.5	8	7	Fair	Poor	<10	Wall/fence within canopy spread.	Ivy clad. Basal decay. Fungal brackets visible on stem base (<i>Perenniporia fraxinea</i>). Stem base decayed (see resi measurements).	Remove.	3
T	3	Ilex aquifolium (Holly)	Mature	300	8	2	2	2	2	Fair	Fair	<10	Wall/fence within canopy spread.	Heavily Ivy clad tree which is displacing the adjacent boundary wall.	Remove.	6



APPENDIX 1 – Qualifications and Experience

Brief qualifications and experience of Mark Harrison

After having gained a national diploma in arboriculture from Merrist Wood Agricultural College in 1986 I have been employed by various Borough and District councils having been awarded the post of arboricultural officer. I have also provided officer support and consultation services to further councils as well as private companies and individuals.

I am a professional member of the Arboricultural Association, Consulting Arborists Society and the International Society of Arboriculture as well as an associate member of the Institute of Chartered Foresters.

My qualifications include:

OND arb

International Society of Arboriculture Tree Risk Assessment Qualification

Professional Tree Valuation (Lantra)

Lantra professional tree inspection

Bats in Trees

Bats and Fiberscopes.

Bat Awareness (Surveying to BS 8596 Surveying for Bats and Trees in Woodland. Guide).



APPENDIX 2 - INSPECTION LEVELS

Level 1: Limited Visual Assessment

The Level 1 assessments provide a visual assessment from a specified perspective of an individual or population of trees near specified targets. A limited visual assessment typically focuses on identifying trees with an *imminent* and/or *probable* likelihood of failure identifying obvious defects or specified conditions. Limited visual assessments are the fastest but least thorough means of assessment and are intended primarily for large populations of trees.

1.1.1.1 Level 2: Basic Assessment

A Level 2 or basic assessment is a detailed visual inspection of a tree and surrounding site. A basic assessment includes complete inspection of the tree from ground level using of simple measuring tools and those specified in the Scope of Work to gain additional information about the tree or defects. Basic is the standard assessment performed by arborists in response to a client's request for tree risk assessment.

1.1.1.2 Level 3: Advanced Assessment

Advanced assessments are performed to provide detailed information about specific tree parts, defects, targets, or site conditions. They are usually conducted in conjunction with or after a basic assessment if the tree risk assessor needs additional information and the client approves the additional service. Specialized equipment, data collection and analysis, and/or expertise are usually required for advanced assessments and are therefore generally more time intensive and expensive.



Bibliography

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IML-Instrumenta Mechanik Labor GmbH, n.d. *PD 400 User Manual*. Weiloch: IML-Instrumenta Mechanik Labor GmbH.

Lonsdale, D., 2001. *Principles of Tree Hazard Assessment and Management*. London: HMSO.

Matteck, C. & Breleor, H., 1994. *The body language of trees, Research for Amenity Trees no. 4*. s.l.:HMSO.

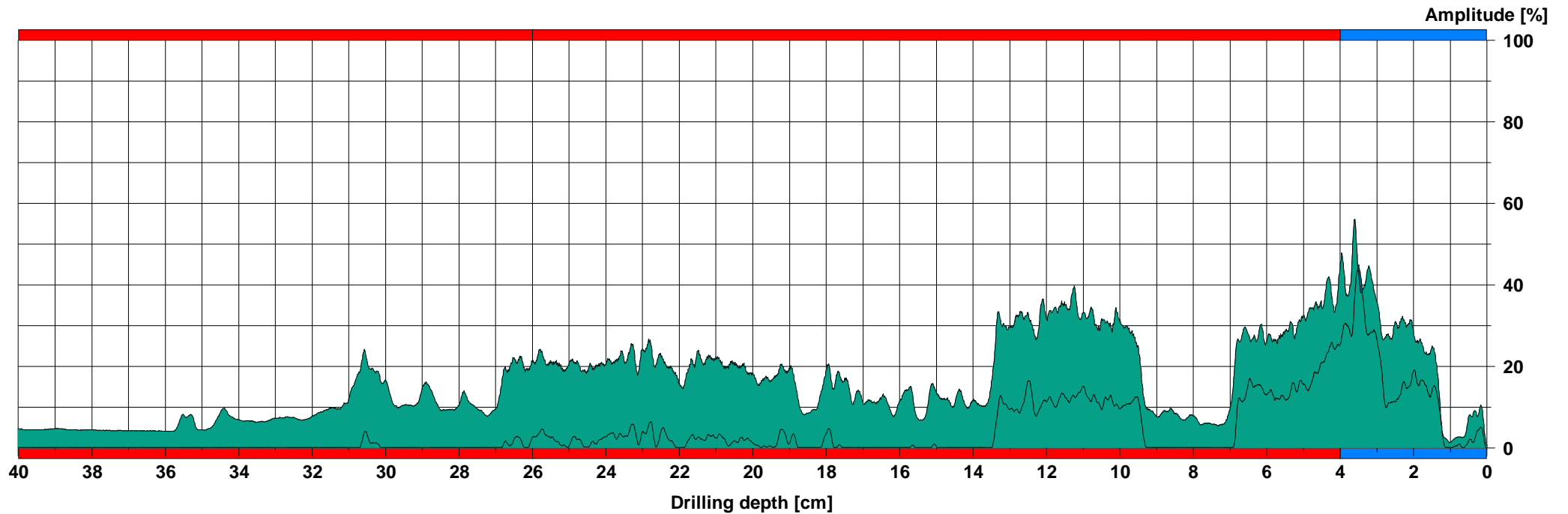
Minors, C., 2002. *The Law of Trees, Forests and Hedgerows*. First ed. London: Sweet and Maxwell.

Schwarze, 2008. *Diagnosis and Prognosis of the Development of Wood Decay in Urban Trees*. Australia: En Spec.

Technical Committee B/213, Trees and tree work, 2010. *Tree work - Recommendations*. London: BSI Standards Limited.

Measuring / object data

Measurement no.:	16	Speed	: 2500 r/min	Diameter:	106,00 cm
ID number	: T1	Needle state:	---	Level	: ~20
Drilling depth	: 40,11 cm	Tilt	: ---	Direction:	N - S
Date	: 29.10.2020	Offset	: 179 / 485	Species	: Horse Chestnut
Time	: 16:39:49	Avg. curve	: off / off	Location	: Waltham St Lawrence
Feed	: 200 cm/min	Name	: M Harrison		



Assessment

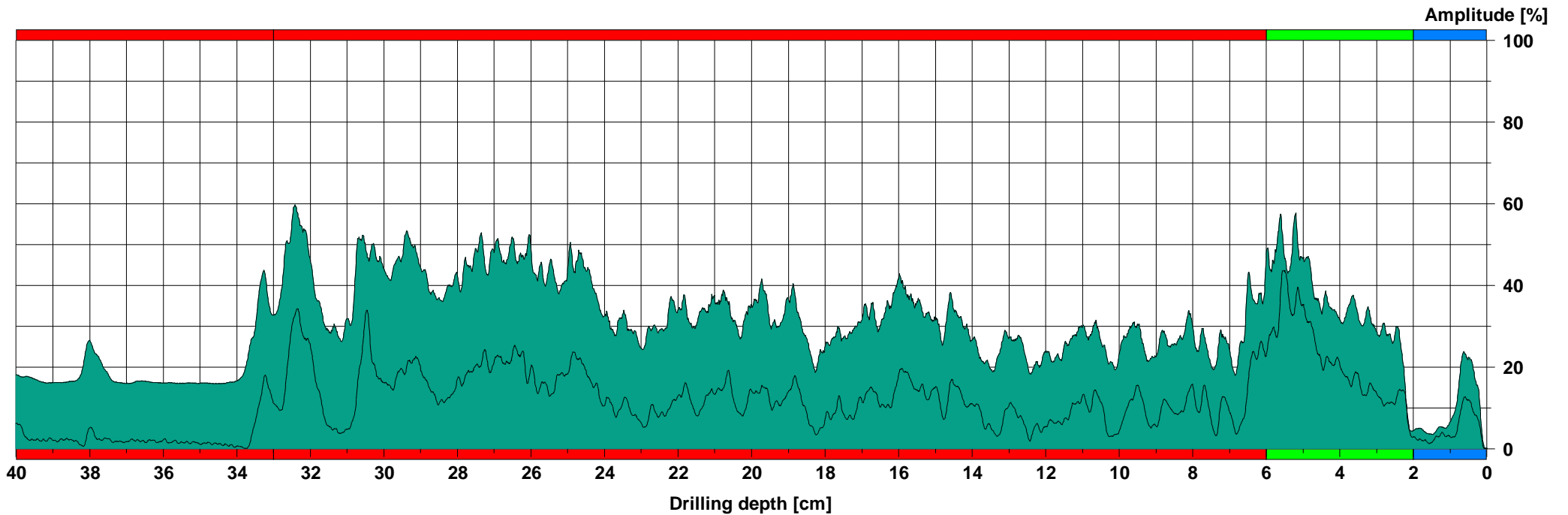
Blue	From 0,00 cm to 4,00 cm	: Bark/Start
Red	From 4,00 cm to 26,00 cm	: Decay
Red	From 26,00 cm to 40,00 cm	: Cavity

Comment

Stem deca from around 7cm

Measuring / object data

Measurement no.:	17	Speed	: 2500 r/min	Diameter:	106,00 cm
ID number	: T1	Needle state:	---	Level	: ~20
Drilling depth	: 40,14 cm	Tilt	: ---	Direction:	E - W
Date	: 29.10.2020	Offset	: 150 / 321	Species	: Horse Chestnut
Time	: 16:40:20	Avg. curve	: off / off	Location	: Waltham St Lawrence
Feed	: 200 cm/min	Name	: M Harrison		



Assessment

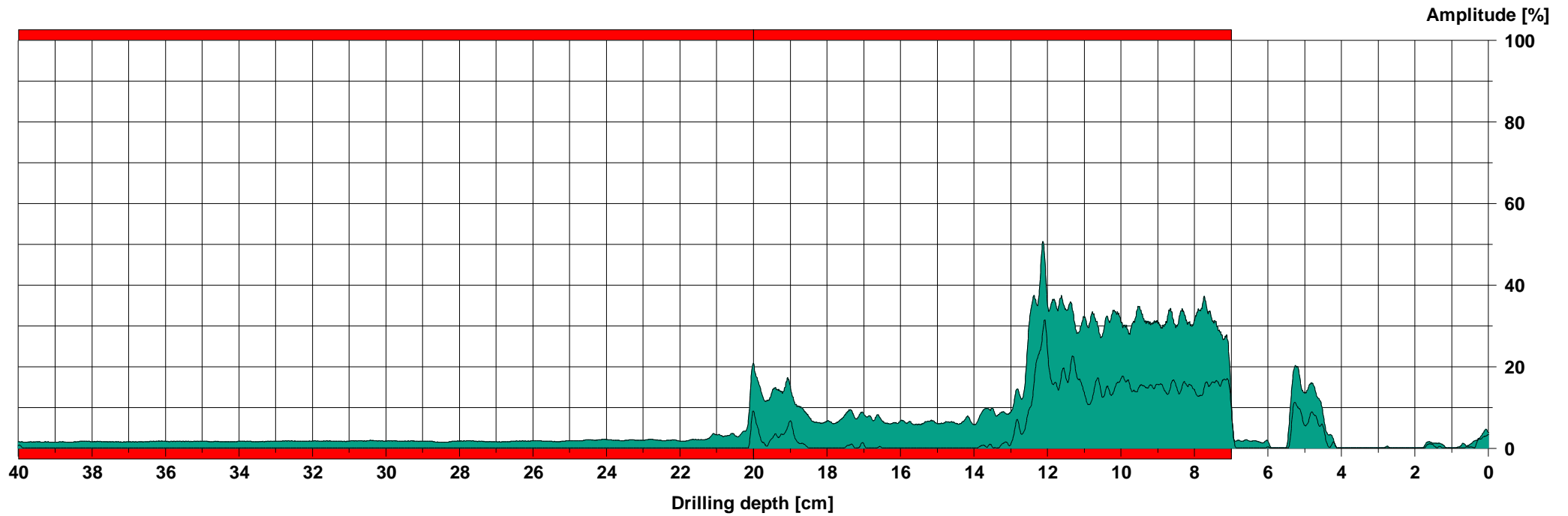
Blue	From	0,00 cm	to	2,00 cm	:	Bark/Start
Green	From	2,00 cm	to	6,00 cm	:	Pos barrier reaction
Red	From	6,00 cm	to	33,00 cm	:	Decay
Red	From	33,00 cm	to	40,00 cm	:	Cavity

Comment

Debgredation / decay from 6cm to 33cm and cavity thereafter.

Measuring / object data

Measurement no.:	18	Speed	: 2500 r/min	Diameter:	106,00 cm
ID number	: T1	Needle state:	---	Level	: ~20
Drilling depth	: 40,11 cm	Tilt	: ---	Direction:	S - N
Date	: 29.10.2020	Offset	: 136 / 452	Species	: Horse Chestnut
Time	: 16:40:53	Avg. curve	: off / off	Location	: Waltham St Lawrence
Feed	: 200 cm/min	Name	: M Harrison		



Assessment

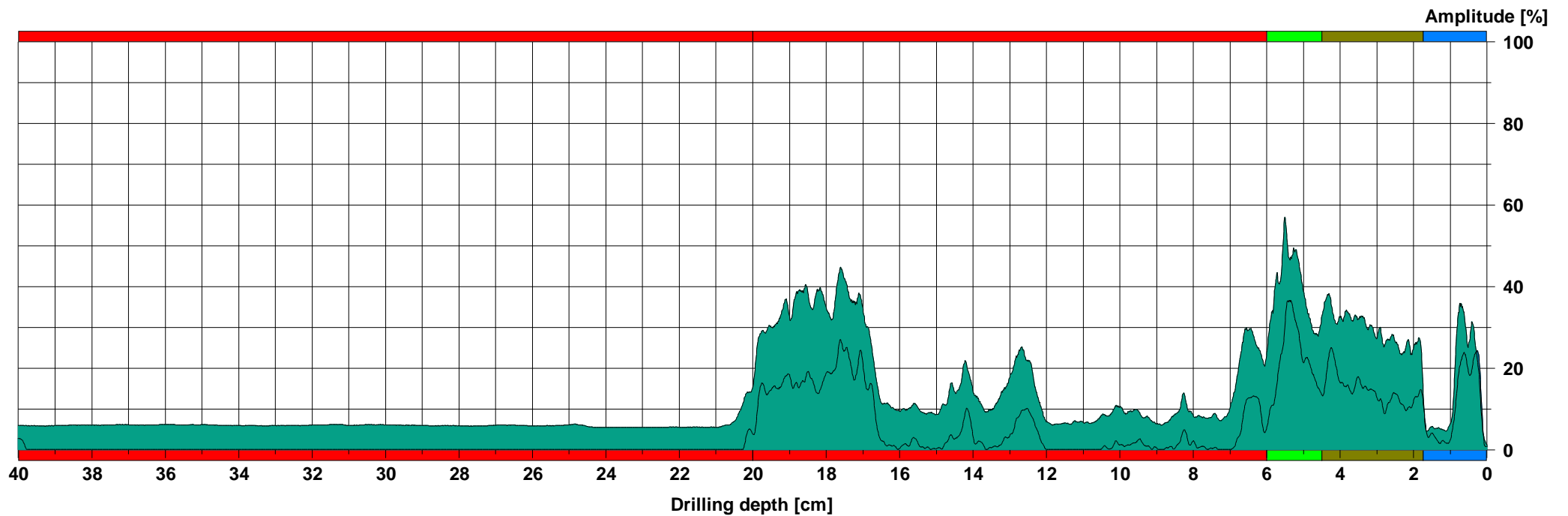
From 7,00 cm to 20,00 cm : Decay
From 20,00 cm to 40,00 cm : Cavity

Comment

Significant decay

Measuring / object data

Measurement no.:	19	Speed	: 2500 r/min	Diameter:	106,00 cm
ID number	: T1	Needle state:	---	Level	: ~20
Drilling depth	: 40,12 cm	Tilt	: ---	Direction:	W - E
Date	: 29.10.2020	Offset	: 129 / 342	Species	: Horse Chestnut
Time	: 16:41:23	Avg. curve	: off / off	Location	: Waltham St Lawrence
Feed	: 200 cm/min	Name	: M Harrison		



Assessment

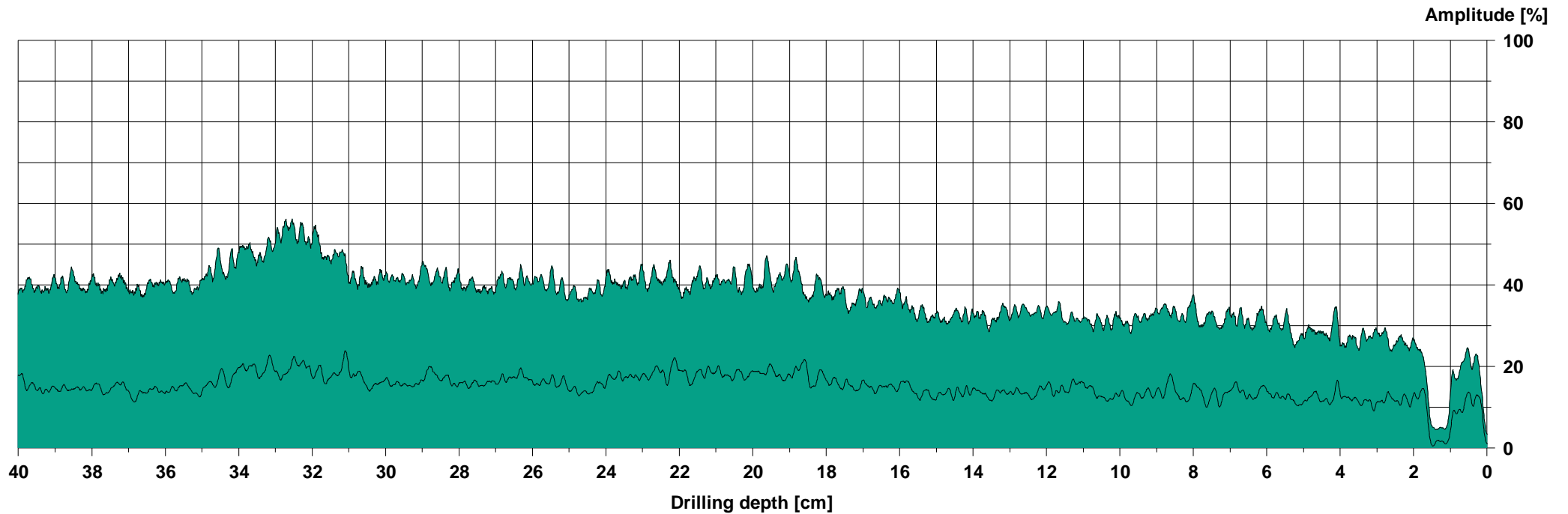
Blue	From 0,00 cm to 1,75 cm	: Bark/Start
Olive	From 1,75 cm to 4,50 cm	: Reasonable resist.
Green	From 4,50 cm to 6,00 cm	: Pos barrier reaction
Red	From 6,00 cm to 20,00 cm	: Decay
Red	From 20,00 cm to 40,00 cm	: Cavity

Comment

Decay cavity from around 5cm

Measuring / object data

Measurement no.:	20	Speed	: 2500 r/min	Diameter:	115,00 cm
ID number	: T2	Needle state:	---	Level	: ~20
Drilling depth	: 40,15 cm	Tilt	: ---	Direction:	N - S
Date	: 29.10.2020	Offset	: 134 / 364	Species	: Horse Chestnut
Time	: 16:42:14	Avg. curve	: off / off	Location	: Waltham St Lawrence
Feed	: 200 cm/min	Name	: M Harrison		



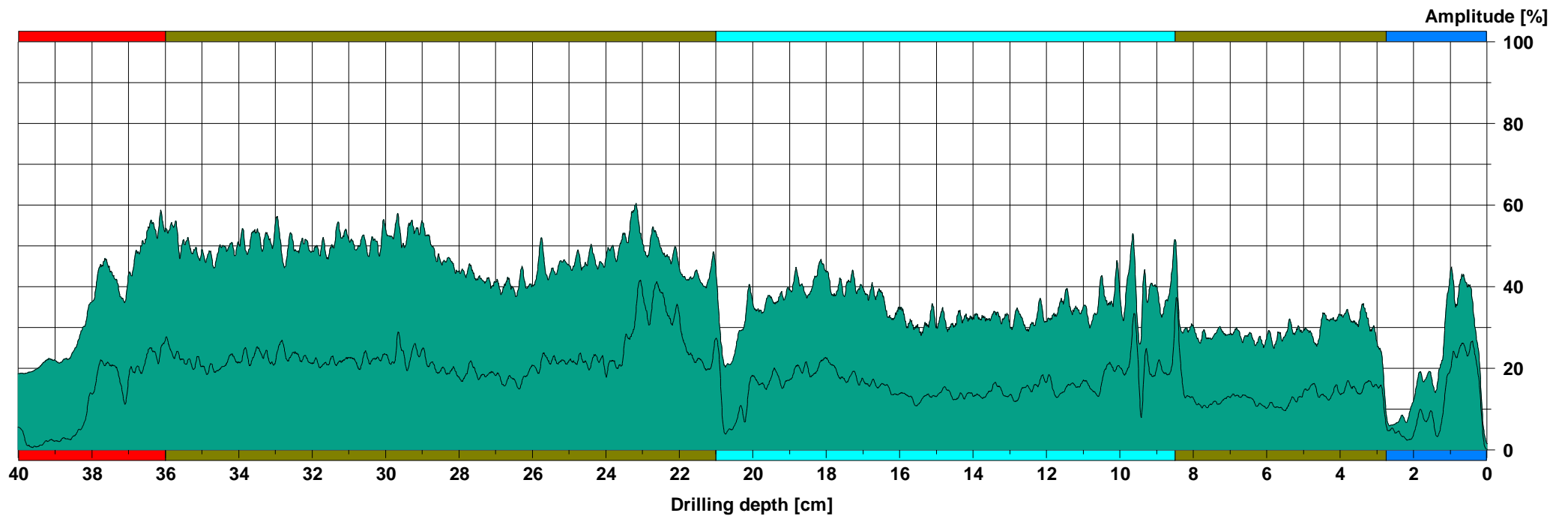
Assessment

Comment

Reasonable resistance in the drive curve. Feed curve lower than expected.

Measuring / object data

Measurement no.:	21	Speed	: 2500 r/min	Diameter:	115,00 cm
ID number	: T2	Needle state:	---	Level	: ~20
Drilling depth	: 40,13 cm	Tilt	: ---	Direction:	E - W
Date	: 29.10.2020	Offset	: 118 / 339	Species	: Horse Chestnut
Time	: 16:42:44	Avg. curve	: off / off	Location	: Waltham St Lawrence
Feed	: 200 cm/min	Name	: M Harrison		



Assessment

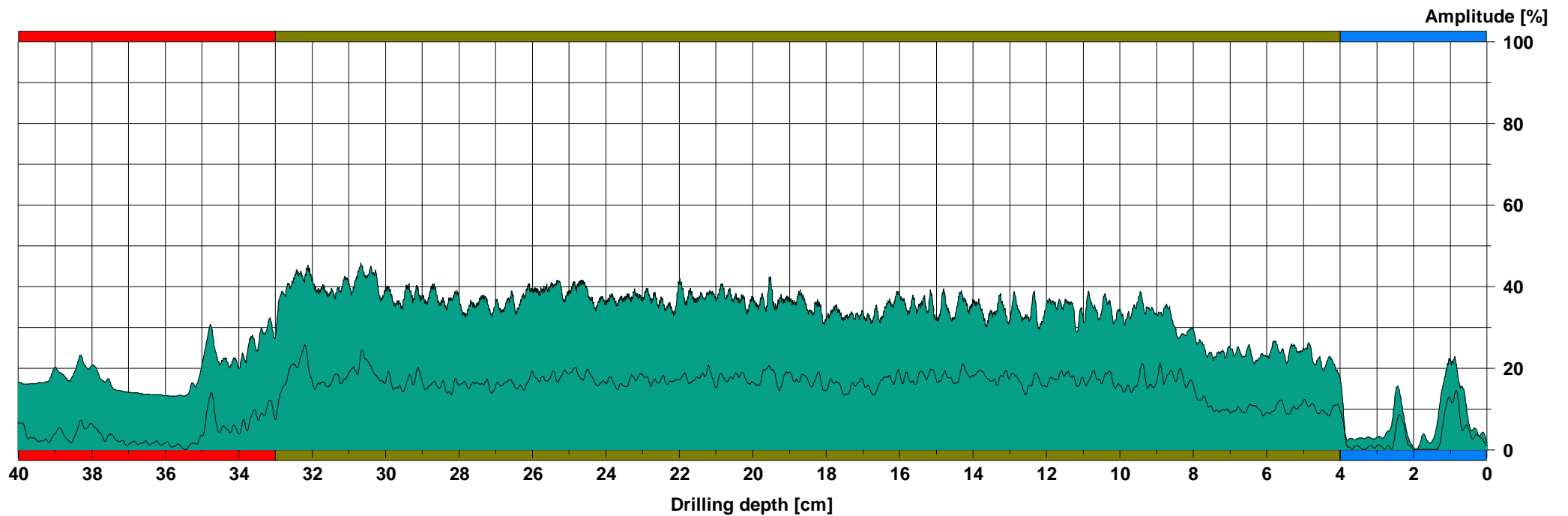
Blue	From	0,00 cm	to	2,75 cm	:	Bark/Start
Olive	From	2,75 cm	to	8,50 cm	:	Reasonable resist.
Cyan	From	8,50 cm	to	21,00 cm	:	See Comment
Olive	From	21,00 cm	to	36,00 cm	:	Reasonable resist.
Red	From	36,00 cm	to	40,00 cm	:	Decay

Comment

Fluctuations in the resistance of the measurement at around 20cm and from 37 cm to the end of the measurement. Possible wood degradation from 9cm to 20cm.

Measuring / object data

Measurement no.:	22	Speed	: 2500 r/min	Diameter:	115,00 cm
ID number	: T2	Needle state:	---	Level	: ~20
Drilling depth	: 40,10 cm	Tilt	: ---	Direction:	S - N
Date	: 29.10.2020	Offset	: 116 / 350	Species	: Horse Chestnut
Time	: 16:43:19	Avg. curve	: off / off	Location	: Waltham St Lawrence
Feed	: 200 cm/min	Name	: M Harrison		



Assessment

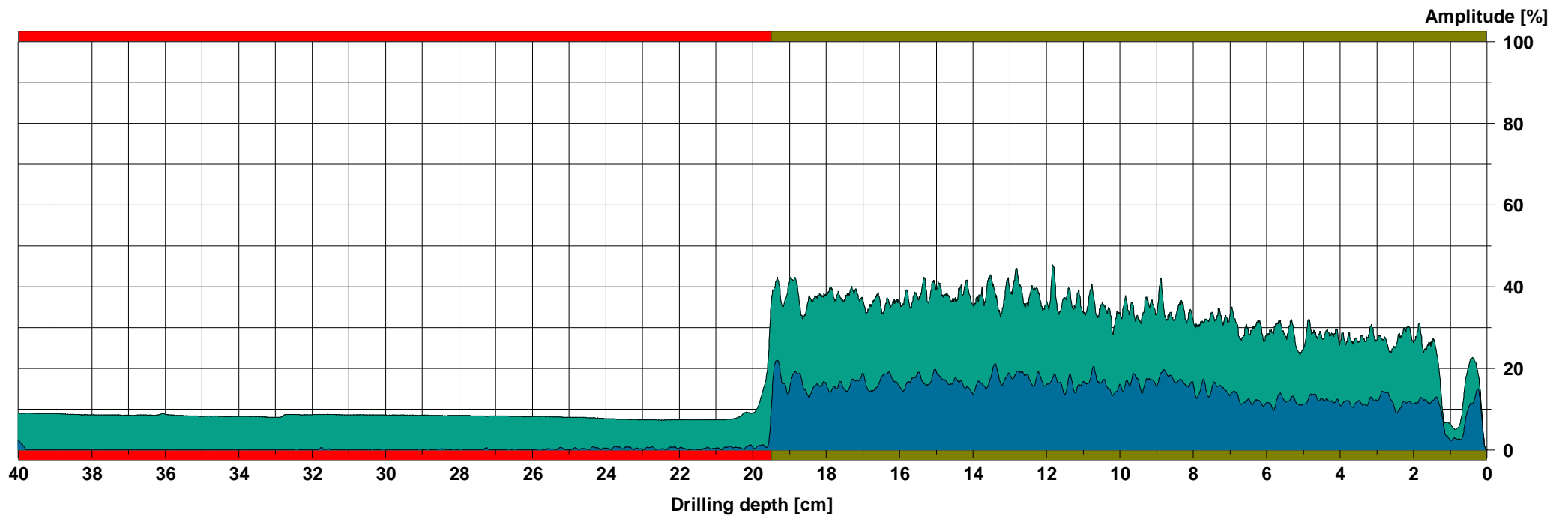
Blue	From 0,00 cm to 4,00 cm	: Bark/Start
Olive green	From 4,00 cm to 33,00 cm	: Reasonable resist.
Red	From 33,00 cm to 40,00 cm	: Decay

Comment

Reasonable resistance until around 33cm after which the drop in resistance indicates decay.

Measuring / object data

Measurement no.:	23	Speed	: 2500 r/min	Diameter:	115,00 cm
ID number	: T2	Needle state:	---	Level	: ~20
Drilling depth	: 40,12 cm	Tilt	: ---	Direction:	W - E
Date	: 29.10.2020	Offset	: 114 / 314	Species	: Horse Chestnut
Time	: 16:43:57	Avg. curve	: off / off	Location	: Waltham St Lawrence
Feed	: 200 cm/min	Name	: M Harrison		



Assessment

■ From 0,00 cm to 19,50 cm : Reasonable resist.
■ From 19,50 cm to 40,00 cm : Decay

Comment

Sound wood around 19cm thick. Significant decay from 19.5 to te end of the measurement.