

Resistograph Tree Report

For

Vivid Housing Limited



At

54 & 25,

Mallards Road,

Bursledon,

Hampshire,

SO31 8LQ



A trading name of RG Consultancy Ltd

**Prepared by
Richard Daubeney Our Ref 0624-RD
28th June 2024**

1.0 Introduction.

- 1.1 Ruskins Tree Consultancy have been instructed by Vivid Housing Limited to undertake resistograph decay detection to T3787.5 and T3787.8 English oaks growing at Mallards Road, Bursledon, Hampshire. The Resistograph inspections were undertaken by Richard Daubeney who visited the site on 26/06/24.

2.0 The Benefits of Trees

- 2.1 Trees have many benefits and are integral to natural ecosystems, providing a wide range of related benefits to humankind (ecosystem services), including mitigating the harmful effects of climate change. Trees are an important part of the economy, providing timber and non-timber forest products.
- 2.2 With urban trees these benefits can often be amplified with trees contributing to the landscape and character of an area, creating a sense of place with mature trees providing a link to the past. They help reduce the impacts of extreme weather by providing shade and intercepting rainfall, help reduce air pollution by removing particulates, help absorb CO₂ whilst providing habitat for wildlife and associated bio-diversity benefits.
- 2.3 Trees can also contribute to society by having a positive impact on health, reducing anti-social behaviour and having a positive impact on the quality and value of the built environment.
- 2.4 Their importance is recognised in national and local government policies, and many non-governmental organisations have policies dedicated to conserving trees and their biodiversity.

3.0 The risks from trees

- 3.1 The risk, per tree, of causing fatality is around one in 150 million for all trees in Britain or one in 10 million for those trees in, or adjacent to areas of public use. This is clearly significantly less than the 1 in 1 million thresholds that the Health and Safety Executive (HSE) considers 'broadly acceptable', within the Tolerability of Risk Framework.
- 3.2 The HSE have developed the Tolerability of Risk Framework which has been incorporated into the National Tree Safety Group (NTSG) guidance. Risks above 1/10,000 per annum are generally considered unacceptable when placed on the public. Risks between 1/10,000 and 1/1,000,000 per annum are tolerable, but consideration should be given to managing them 'as low as reasonably practicable' (ALARP), where it is cost effective to do so.
- 3.3 This risk therefore represents an extremely small proportion of the background risk that we commonly accept in our everyday lives, and the ongoing removal and general management of trees is probably the most important factor in keeping this figure at such a low level. However, there can be pressure to remove trees because of a perception of risk, which may be much greater than any actual risk a tree poses.
- 3.4 Trees are growing dynamic structures. No tree is ever absolutely safe due to the unpredictable laws and forces of nature. As a result of this, natural failure of intact trees will occur; extreme climatic conditions can cause damage to even apparently healthy trees.

4.0 Statutory Protection of Trees.

- 4.1 We have been informed that there is Tree Preservation Orders in place and no Conservation Area protection relating to the trees T3787.5 and T3787.8 at this site for Eastleigh Borough Council (TPO 368 A-E)
- 4.2 Before any tree works are carried out the presence of Tree Preservation Orders (TPO) or Conservation Area status should be established with the Local Planning Authority and permission obtained from the tree owners if required.
- 4.3 All tree works should be carried out by qualified, trained and fully insured operators in accordance with BS 3998: 2010 'Recommendations for Tree Works'.

5.0 Tree Inspections

- 5.1 To maintain trees in a reasonable condition and reduce the risk of personal injury to acceptable levels trees should be inspected by a suitably trained and competent person using the Basic or Professional Level tree surveying methodology, which can be undertaken by an arboriculturist as set out by LANTRA utilising visual tree assessment (VTA) methodology (Lonsdale 1999).
- 5.2 Where the visual tree assessment finds features that merit further inspection then the tree should be inspected using appropriate methodology. This might range from climbing inspections, root collar excavations to use of Resistograph and/or tomographs to help determine the structural integrity of the wood within the tree. For the trees at this site our VTA identified issues that we considered should be assessed by use of a resistograph.
- 5.3 Following the resistograph testing of the tree T3787.5 English oak, the testing showed a moderate area of decay present to the North side within reading No.3, this is likely considered to be linked to the external stem decay to the North side also. The reading no. 2 also showed small minor area of decay present within the stem to the West side. However, it is reading no.1 which showed good areas of live sound wood present to the South side of the stem. The external stem wound to the North side at 43cm will continue to deteriorate over time, this will require regular monitoring to ensure there is further change to tree health and condition. The tree is heavily dense with Ivy clad stem and canopy, unable to fully inspect the stem and canopy. The crown is also low and overhanging the road and car park, including the public footpath. Deadwood over 100mm throughout canopy.
- 5.4 Following the resistograph testing of the tree T3787.8 English oak, the testing showed areas of moderate decay present within readings No. 1 to the West and 4 to the South, this is considered likely a large column of decay has formed within those readings, which is considered likely linked to the large external basal wound to the South side. However, it is reading no. 2 which showed some residual sound wood present to the North side of the stem. The tree has previously been tested following the initial inspection of the tree back in 2021, the results conclude that the decay within the stem has decreased the sound wood available throughout the stem diameter of the tree. The tree has significant epicormic growth throughout the canopy and stem. The tree has been crown reduced as part of the previous testing to the tree. The stem is heavily clad with Ivy.

Conclusion

- 6.1 Following the results of T3787.5 and T3787.8 English oak trees mentioned within this report, we now provide our conclusions.
- 6.2 The readings gathered from the testing of T3787.5 English oak show there is moderate areas of dysfunctional decayed wood within the stem, but based on the overall results of the testing, there is still suitable sound and live wood remaining within the stem, however the tree does have significant canopy over the road and car park, with low branches over these areas. With this in mind this is likely creating loading to the lower stem and rooting area of the tree. The tree is in area of high risk with targets such as road, car park and public footpath all within striking distance of tree. Therefore, we recommend a crown reduction of 2m all round, with a crown lift of 6m over roadside. And crown lift over car park and public footpath to 3.5m. We also advise removal of deadwood over 50mm throughout canopy, sever Ivy at ground level to allow for future inspections of stem and canopy.
- 6.3 The testing taken from T3787.8 English oak tree showed areas of dysfunctional and decayed wood within the stem, however, the tree still showed some moderate signs of sound residual wood remaining within the stem, but the large basal wound to the South side is and will continue to be an ongoing concern, which over time will lead to further decreased residual sound wood within the stem. The tree location has targets such as buildings, road, public footpath all within striking distance of tree. Therefore, given the above information we recommend a crown reduction of 3m all round, this will ensure the loading to the lower section of the stem and rooting area is reduced. We also advise that the Ivy is severed to allow for future inspections of the stem and crown, including removal epicormic growth to 4m above ground level.
- 6.4 The all works listed above is required to be carried out within 3 months of this report.
- 6.5 All work to date is to be undertaken within the requirements of the tree table works schedule. The trees listed in this report to be reinspected as outlined within the tree table.



Richard Daubeney
Arboricultural Consultant
27th June 2024

Tree Data

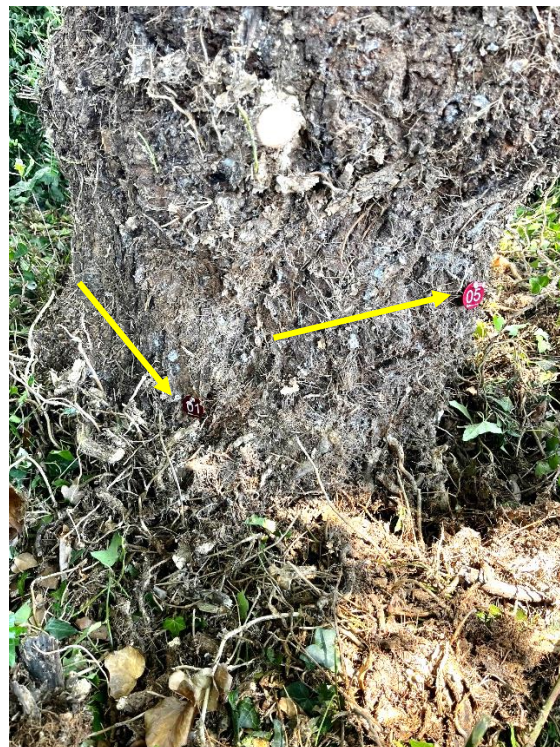
Tree No. Tree Tag.	Tree Species	Hgt (m)	Past Management	Age Class	Risk Target	TPO Status	Defects	Works	Work Priority
T3787.5 Tree tag: 2049	English oak	15- 19m	No significant recent management noted.	Mature	High/ Reinspect 2027	TPO in place no Conservation Area restrictions for Southampton City Council TPO (TPO 368 A-E) Botanical Name: (<i>Quercus robur</i>)	No Gross Defect Noted Ivy Covered stem and crown unable to fully inspect, Stem decay at 30cm above ground level to North side, hollow sound when tapped to that area. Further investigation by means of decay detection is required. Dead Wood over 100mm in canopy. Low branches over main road, car park and public footpath.	Crown reduce by 2m all round. Sever ivy at ground level, strip and leave 2m gap clearance. Reinspect inn 6-12 months. Crown lift to 6m over roadside, crown lift to 3.5m over car park and public footpath. Remove deadwood over 50mm throughout canopy. Tree works to BS3998 (2010) No pruning wounds to exceed 50mm in dia.	Urgent within 3 months
T3787.8 Tree tag: 2050	English oak	15- 19m	Historic crown reduction	Mature	High/ Reinspect 2027	TPO in place no Conservation Area restrictions for Eastleigh Borough Council TPO (TPO 368 A-E) Botanical Name: (<i>Quercus robur</i>)	Gross Defect Noted Ivy Covered stem unable to fully inspect, Large basal and stem wound to South side, with exposed internal decay. Further investigation by means of decay detection is required. Stem epicormic growth. Historic reduction to crown.	Crown reduction by 3m all round. Remove epicormic growth to 4m above ground level. Sever ivy at ground level, strip and leave 2m gap clearance. Reinspect in 6-12 months. Tree works to BS3998 (2010)	Urgent within 3 months

Photographs

T3787.5 English oak looking South towards Drill no. 3 and 6. and stem wound location.



T3787.5 Looking Northeast to Drill locations No.1 and No.5



T3787.5 English oak tree looking South.



T3787.5 English oak Looking East



T3787.8, English oak looking North towards drill location No. 4 and Basal and stem wound.



T3787.8 English oak tree Looking to Drill locations 1 and 5.



T3787.8 English oak tree looking East



T3787.8 English oak looking North

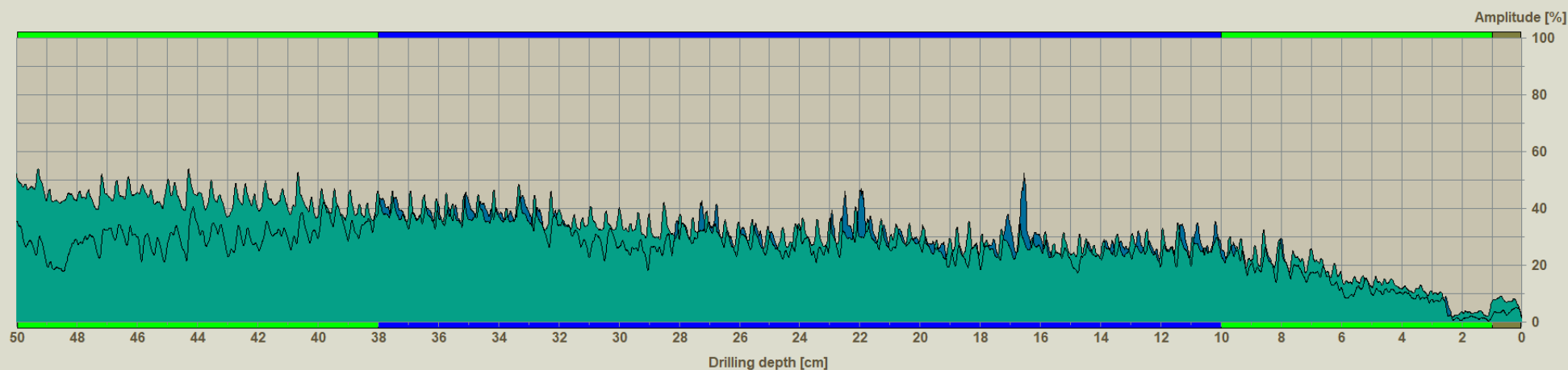


Resistograph Readings

T3787.5 English oak measurement 1

Measuring / object data

Measurement no.:	1	Speed	: 2500 r/min	Diameter:	74,00 cm
ID number	: T1	Needle state:	---	Level	: 20cm
Drilling depth	: 50,44 cm	Tilt	: ---	Direction:	South
Date	: 26.06.2024	Offset	: 50 / 273	Species	: English oak
Time	: 11:32:13	Avg. curve	: off / off	Location	: Mallards Road
Feed	: 50 cm/min			Name	: T3787.5



Assessment

From	0,00 cm to	1,00 cm	: Bark
From	1,00 cm to	10,00 cm	: Sound wood
From	10,00 cm to	38,00 cm	: Reaction wood
From	38,00 cm to	50,00 cm	: Sound wood

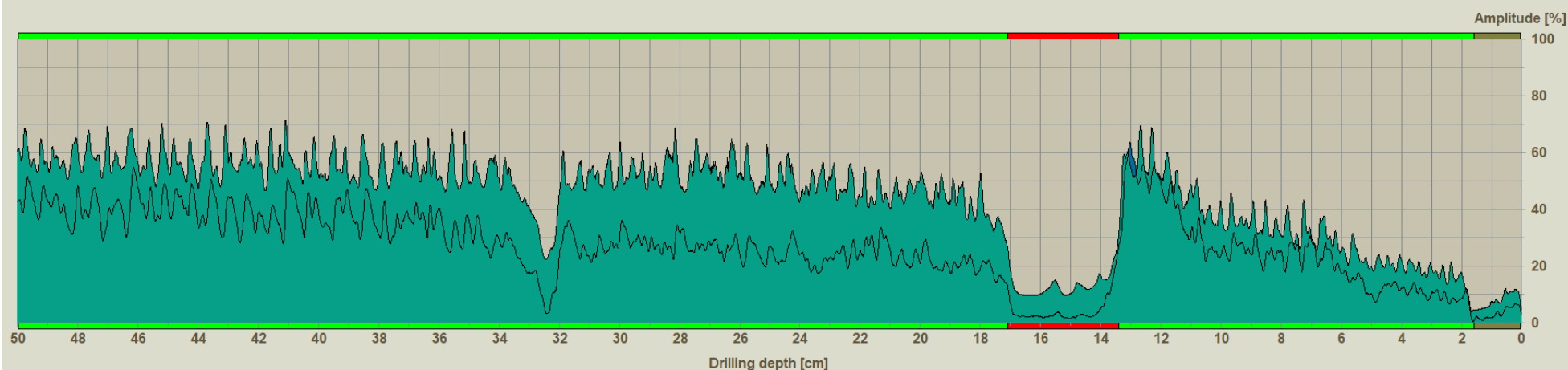
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T3787.5

T3787.5 English oak measurement 2

Measuring / object data

Measurement no.:	2	Speed	: 2500 r/min	Diameter:	74,00 cm
ID number	: T2	Needle state:	---	Level	: 25cm
Drilling depth	: 50,43 cm	Tilt	: ---	Direction:	West
Date	: 26.06.2024	Offset	: 56 / 281	Species	: English oak
Time	: 11:35:14	Avg. curve	: off / off	Location	: Mallards Road
Feed	: 100 cm/min	Name	: T3787.5		



Assessment

From	0,00 cm to	1,60 cm	: Bark
From	1,60 cm to	13,40 cm	: Sound wood
From	13,40 cm to	17,10 cm	: Decay
From	17,10 cm to	50,00 cm	: Sound wood

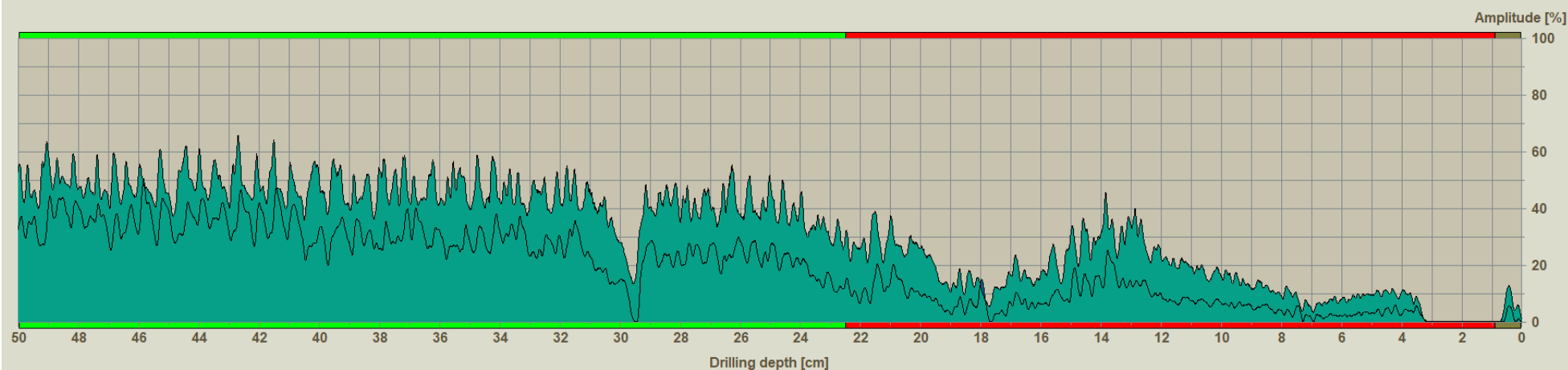
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T3787.5

T3787.5 English oak measurement 3

Measuring / object data

Measurement no.:	3	Speed	: 2500 r/min	Diameter:	74,00 cm
ID number	: T3	Needle state:	---	Level	: 20cm
Drilling depth	: 50,42 cm	Tilt	: ---	Direction:	North
Date	: 26.06.2024	Offset	: 59 / 284	Species	: English oak
Time	: 11:36:30	Avg. curve	: off / off	Location:	Mallards Road
Feed	: 100 cm/min	Name	: T3787.5		



Assessment

From	0,00 cm	to	0,90 cm	:	Bark
From	0,90 cm	to	22,50 cm	:	Decay
From	22,50 cm	to	50,00 cm	:	Sound wood

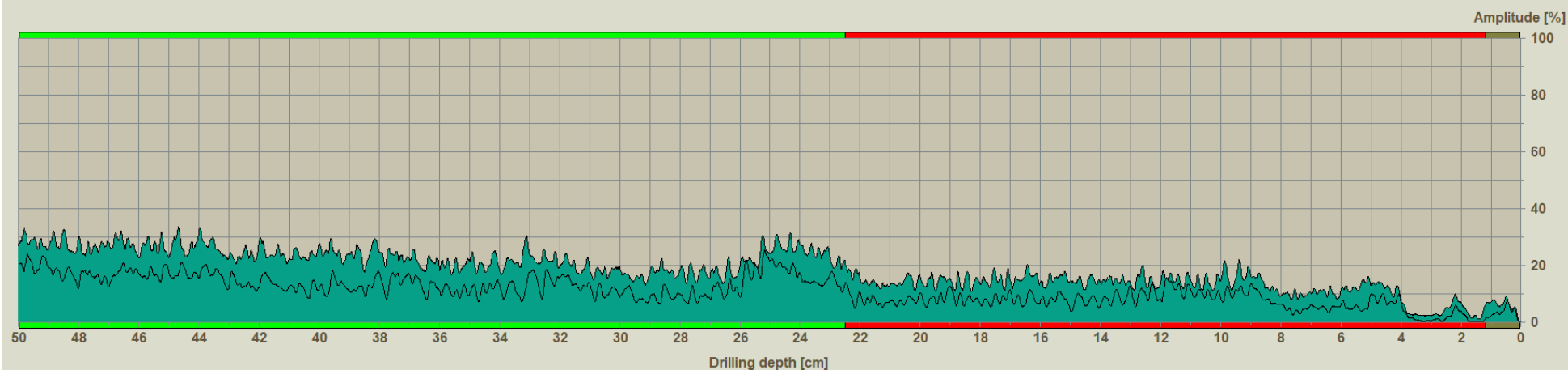
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T3787.5

T3787.8 English oak measurement 1

Measuring / object data

Measurement no.:	1	Speed	: 2500 r/min	Diameter:	90,00 cm
ID number	: T1	Needle state:	---	Level	: 10cm
Drilling depth	: 50,45 cm	Tilt	: ---	Direction:	West
Date	: 26.06.2024	Offset	: 49 / 295	Species	: English oak
Time	: 10:27:55	Avg. curve	: off / off	Location	: Mallards Road
Feed	: 50 cm/min			Name	: T3787.8



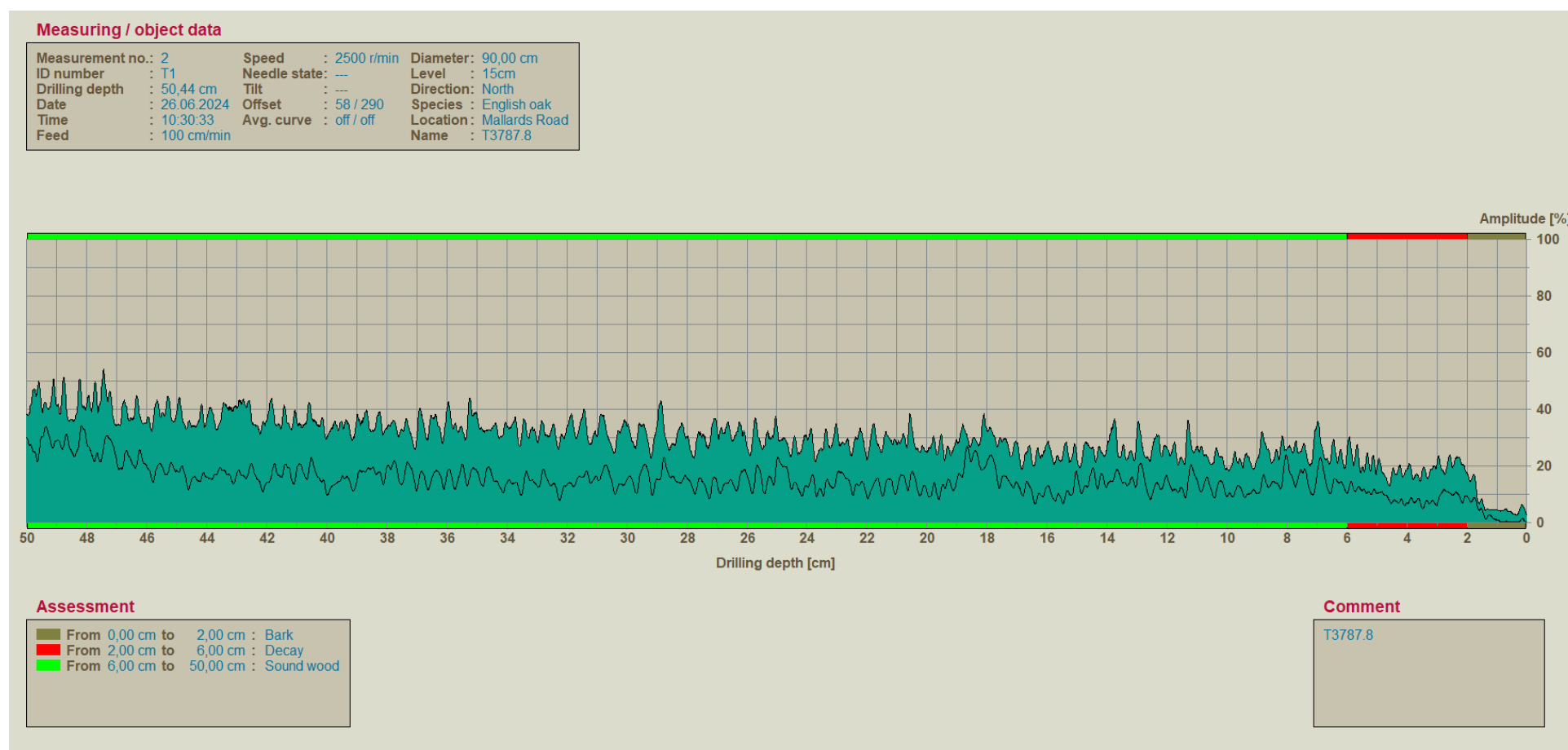
Assessment

From	0,00 cm to	1,20 cm	: Bark
From	1,20 cm to	22,50 cm	: Decay
From	22,50 cm to	50,00 cm	: Sound wood

Comment

T3787.8

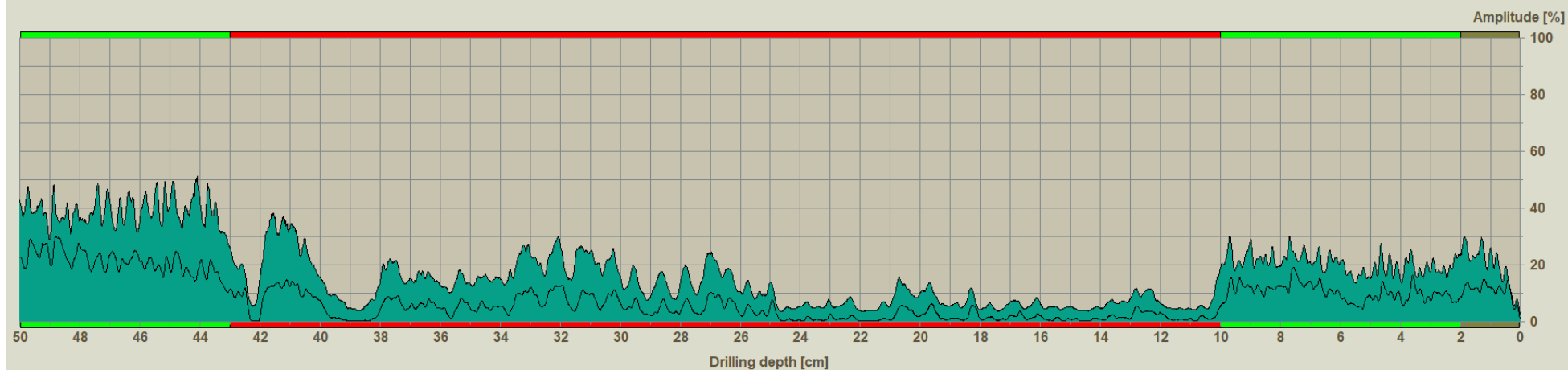
T3787.8 English oak measurement 2



T3787.8 English oak measurement 3

Measuring / object data

Measurement no.:	4	Speed	: 2500 r/min	Diameter:	90,00 cm
ID number	: T4	Needle state:	---	Level	: 15cm
Drilling depth	: 50,42 cm	Tilt	: ---	Direction:	South
Date	: 26.06.2024	Offset	: 57 / 304	Species	: English oak
Time	: 10:34:04	Avg. curve	: off / off	Location	: Mallards Road
Feed	: 100 cm/min			Name	: T3787.8



Assessment

From	0,00 cm to	2,00 cm	: Bark
From	2,00 cm to	10,00 cm	: Sound wood
From	10,00 cm to	43,00 cm	: Decay
From	43,00 cm to	50,00 cm	: Sound wood

Comment

T3787.8

Site Plan

