

APPENDIX 3 - RESISTOGRAPH RESULTS

The Resistograph method of assessing the extent of internal decay measures the resistance of wood using a cordless drill, flexible needle drill bit and IML Resistograph 300.

The needle drill is 300mm long, has a head diameter of 3 mm and shaft 1.5 mm in diameter. This drills into the wood at a steady speed, causing minimal damage.

Drilling resistance correlates to the mechanical properties of the wood.

Sound wood produces high resistances with characteristic pattern; decayed and degraded wood provide much lower resistance allowing areas of decay, hollows and to a certain extent tree ring structures to be detected and mapped.

The resistance is plotted at a 1:1 scale on wax paper, giving a clear graphical representation of the mechanical properties of the wood at the point of sampling.

The readings are read from right to left, the right side being the bark.

The numerical scale along the base of the reading is the radial penetration toward the centre of the trunk in centimetres (cm).

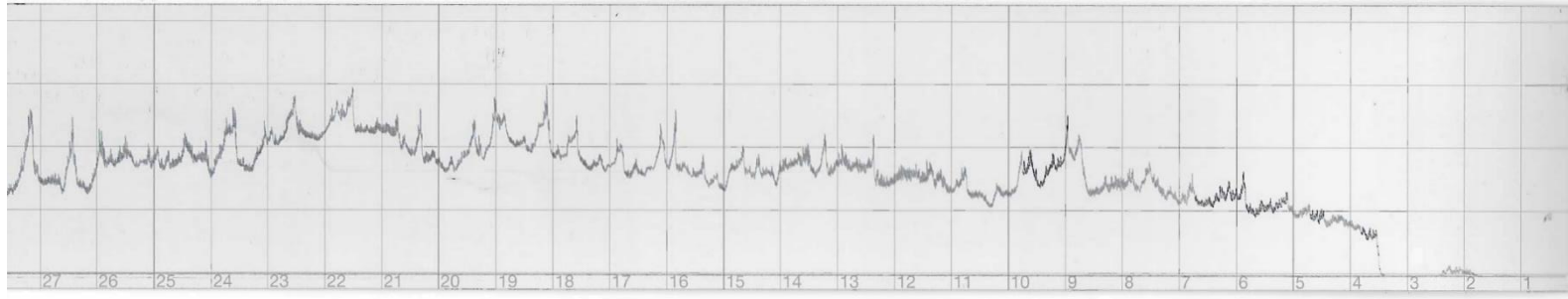
The side of the trunk and height of testing are shown in the left margin.

Oriental spruce 574

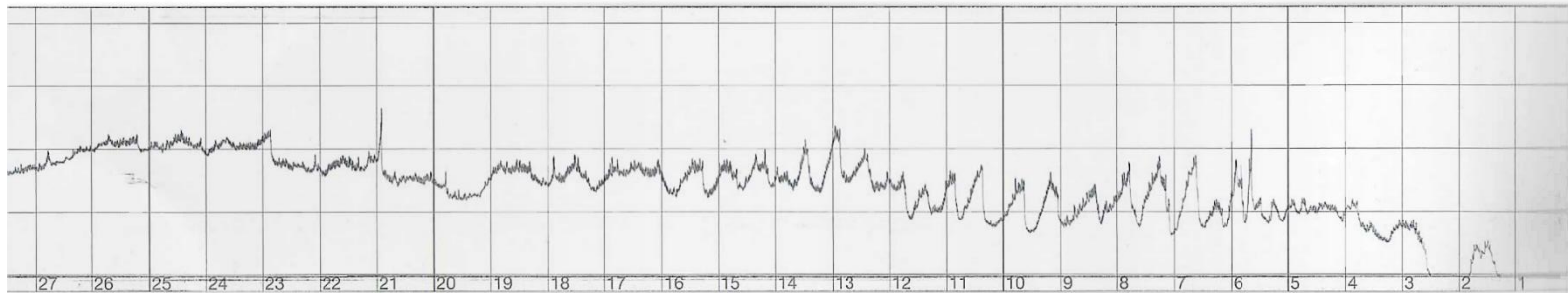
300mm

Bark

North at
ground level
and angle 30°
towards roots.



South at 10cm
above ground
level and
horizontal.



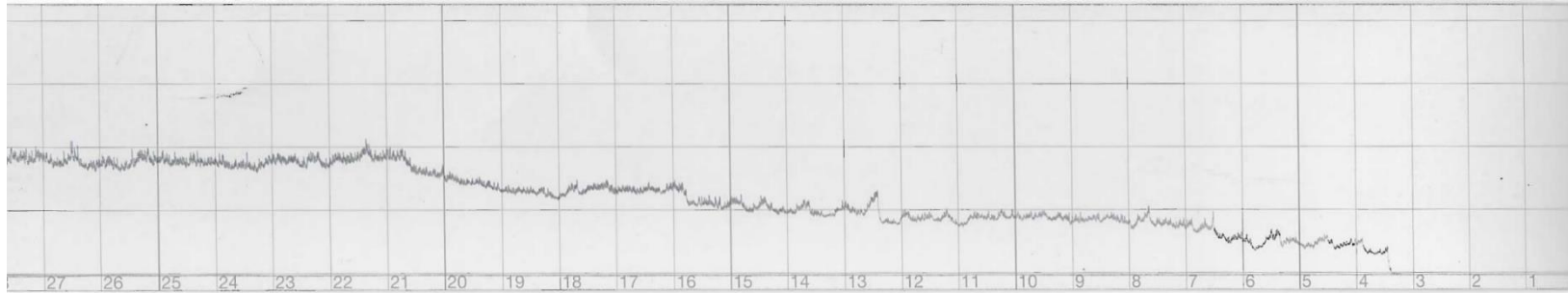
Interpretation – Solid wood was detected to a depth of 300mm at the point of testing.

Lawson cypress 996

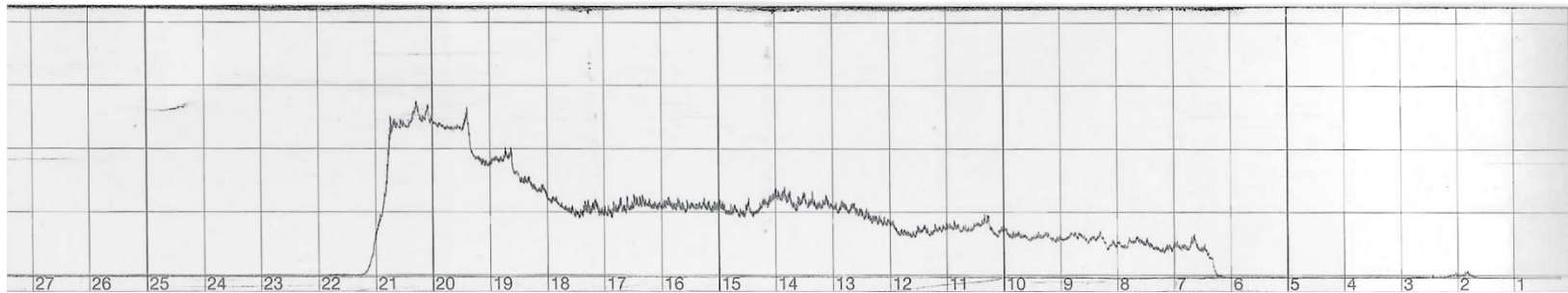
300mm

Bark

North at
10cm above
ground level
and angled
30° towards
roots.



West at
ground level
and
horizontal.



300mm

Bark

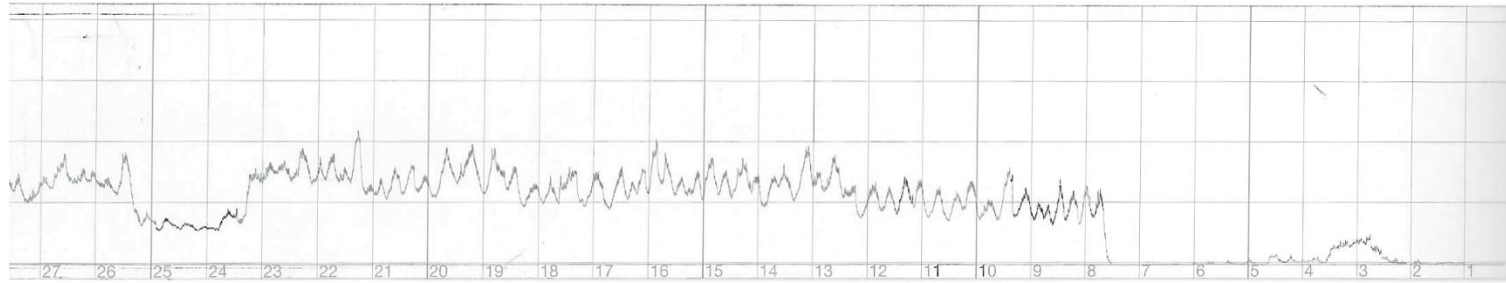
Interpretation – Internal cavity detected from at 21cm depth on western face of trunk at ground level.

Douglas fir 997

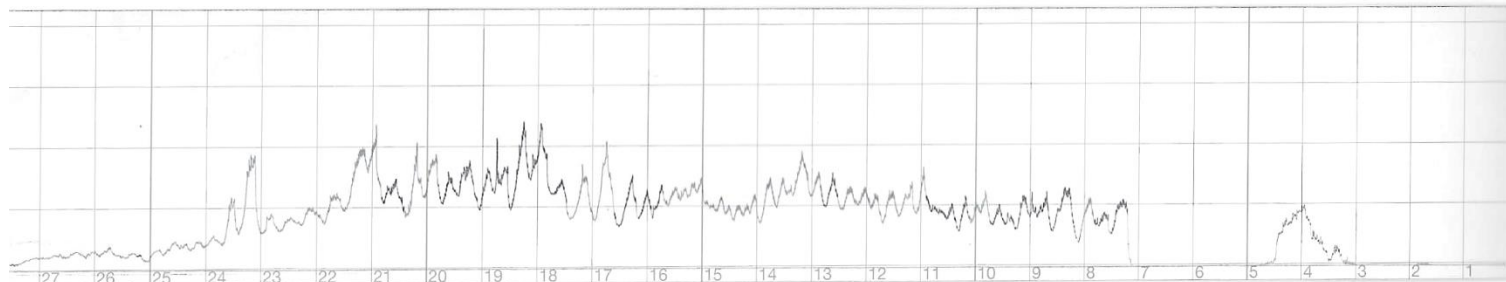
300mm

Bark

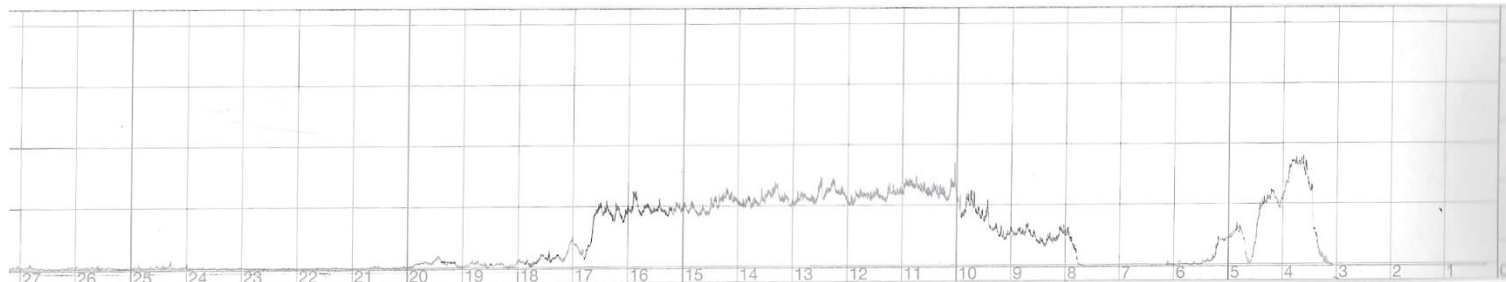
North at ground level and angle 30° towards roots.



East at 20cm above ground level and horizontal.



South at ground level and angled 30° towards roots.



300mm

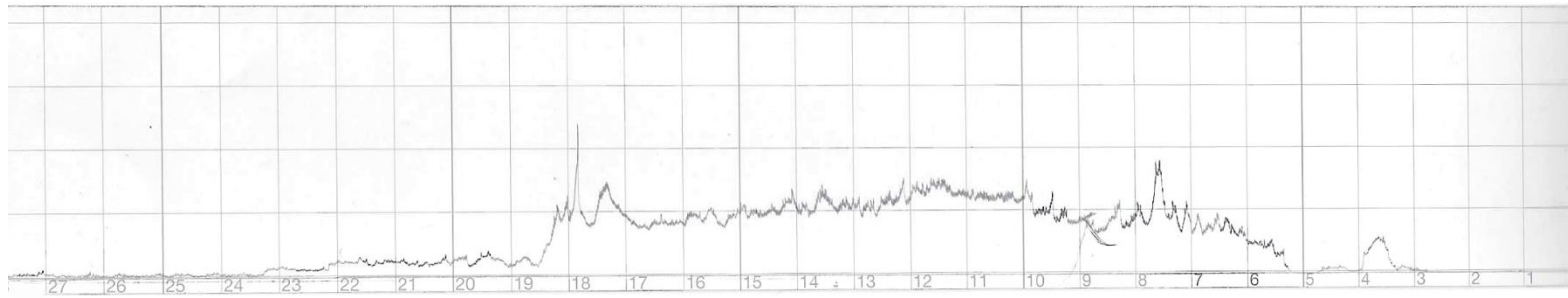
Bark

Douglas fir 997

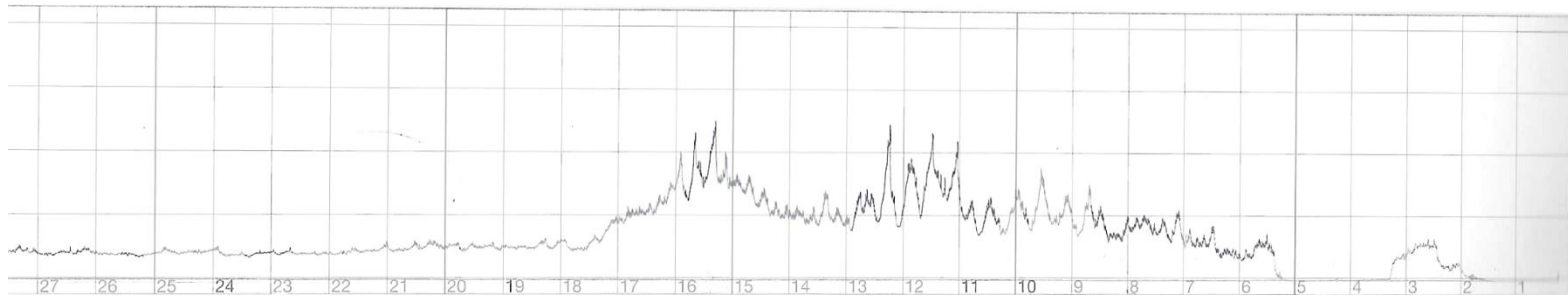
300mm

Bark

South at
30cm above
ground level
and
horizontal.



South at
60cm above
ground level
and
horizontal.



300mm

Bark

Interpretation – Internal cavity detected from at around 17cm on southern face of trunk between ground level and 60cm above ground level.