

# Rentokil Regional Pest Control

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## VISUAL TIMBER PEST INSPECTION in accord with the requirements of AS 4349.3-1998

CLIENT:

Peter White

Property Address:

Staff Quarters 2

### **CONTACT THE INSPECTOR.**

*Please feel free to contact the inspector who carried out this inspection. Often it is very difficult to fully explain situations, problems, access difficulties or timber pest activity and/or damage in a manner that is readily understandable to the reader. Should you have any difficulty in understanding anything contained within this report then you should immediately contact the inspector and have the matter explained to you. If you have any questions at all or require any clarification then contact the inspector prior to acting on this report.*

**SIGNED FOR AND ON BEHALF OF: Rentokil Regional Pest Control**

**Signature:** \_\_\_\_\_

**If you have received an unsigned electronic copy of this report and require a signed original, please contact our office.**

# TIMBER PEST INSPECTION REPORT TO AS 4349.3-1998

## Client and Property details:

**Client:** Peter White.  
**Date of the Inspection:** 5 March 2008.  
**Property Address:** Staff Quarters 2.  
**Type of Structure:** Commercial.  
**Inspector:** Mark Carvosso. Insurance Timber Pest Inspector Accreditation number 13918.

## EXECUTIVE SUMMARY

**SUMMARY ONLY. THE REPORT MUST BE READ IN FULL**

### SUMMARY - IMPORTANT DISCLAIMER

This Summary is supplied to allow a quick and superficial overview of the inspection results.  
It is NOT the Report and cannot be relied upon on its own.

This Summary must be read in conjunction with the Report and not in isolation.

If there should happen to be any discrepancy between anything in this Summary and anything in the Report, then the information in the Report shall override that of this Summary.

### SUMMARY:

**Access:** Yes - You should arrange access to an area or areas of the property and arrange another inspection. Please read the report. See details under heading - **Roof Cavity:**

**Termite Activity:** Active (live termites) Termites (White Ants) were found. A treatment will be required and you may need to consult a builder or other expert. Read the report.

**Termite Damage:** Evidences of termite damage such as mud tubes or damaged timber was found. You may need to arrange for a treatment and may need to consult a builder or other expert. Read the report.

**Borer activity and damage:** At the time of the inspection no visible evidence of borer activity or damage was found in the areas able to be inspected. However, you should read the report.

**Wood Rot and damage:** At the time of the inspection no visible evidence of wood decay fungi (wood rot) was found in the areas able to be inspected. However, you should read the report as there may be areas that need attention to prevent wood decay from taking place.

**Conducive Conditions:** There are areas where the conditions are conducive to timber pest attack. These should be attended to and may involve you contacting a builder or other expert. You should read the report for details.

# TERMS & CONDITIONS

## TERMS & CONDITIONS

### Terms and Conditions:

Any person relying on this report does so acknowledging that the following clauses form an important and integral part of this report.

**VISUAL INSPECTION ONLY** in accord with the requirements of AS 4349.3-1998 - Inspection of buildings Part 3: Timber pest inspections. Visual inspection was limited to those areas and sections of the property to which reasonable access (**See Definitions**) was available and permitted on the date and at the time of the Inspection. The inspection **DID NOT** include breaking apart, dismantling, removing or moving objects including, but not limited to, foliage, mouldings, roof insulation/sisalation, floor or wall coverings, sidings, ceilings, floors, furnishings, floor coverings, appliances or personal possessions. The inspector **CANNOT** see inside walls, between floors, inside skillion roofing, inside the eaves, behind stored goods in cupboards and in other areas that are concealed or obstructed. The inspector **DID NOT** dig, gouge, force or perform any other invasive procedures. **An invasive inspection will not be performed unless a separate contract is entered into.** In an occupied property it must be understood that furnishings or household items may be concealing evidence of Timber Pests which may only be revealed when the items are moved or removed. Any inspection of fences, poles and posts was restricted to those timbers above the ground that were facing into the property grounds that were not obstructed or concealed by plants or undergrowth etc or obstructed in such a manner that close access was not possible. No inspection was made of fences, poles, posts or trees above two and one half meters from the soil level.

**SCOPE OF THE REPORT.** This Report is confined to reporting on the discovery, or non discovery, of infestation and/or damage caused by subterranean termites (**white ants**), dampwood termites, borers of seasoned timber and wood decay fungi (**hereinafter called "Timber Pests"**), present on the date and time of the Inspection. The Inspection did not cover any other pests and this Report does not comment on them. Dry wood termites (Family: KALOTERMITIDAE) were excluded from the Inspection, but have been reported on if, in the course of the Inspection, any visual evidence of infestation happened to be found.

**AREAS WHICH CAN NOT BE INSPECTED.** No inspection was made, and no report is submitted, of inaccessible areas. these areas include but are not limited to areas such as concealed timbers, eaves, area concealed by concrete, wall linings, soil, landscaping, rubbish, floor coverings, furniture, pictures, appliances, stored items, insulation, hollow blocks, hollow posts, etc. Furnishings, furniture and stored items were not inspected. We strongly recommend a further inspection when the property is empty of all such items.

**LIMITATIONS.** Nothing contained in the Report implies that any inaccessible or partly inaccessible areas or sections of the property were not, or have not been, infested by Timber Pests. Accordingly this Report is not a guarantee that an infestation and/or damage does not exist in any inaccessible or partly inaccessible areas or sections of the property. Nor is it a guarantee that a future infestation of Timber Pests will not occur or be found. **Australian Standard Termite management Part 2: In and around existing buildings and structures (AS 3660.2-2000) recommends that properties should be inspected at least every twelve (12) months but more frequent inspections are strongly recommended.**

**DETERMINING EXTENT OF DAMAGE.** This report does not and cannot state the extent of damage. It is NOT a structural damage report. We claim no expertise in building or structural engineering. If any evidence of timber pest activity or damage is reported, then it must be assumed there may be some hidden timber damage and/or structural damage. This firm takes no responsibility for any damage whether disclosed by this report or not. You should obtain a qualified person such as a Builder, Engineer, or Architect to determine the full extent of the damage, and the extent of repairs that may be required.

**POSSIBLE HIDDEN DAMAGE.** If this Report indicates Timber Pest activity and/or damage was found, within the Structures **or** the grounds of the property, then activity and/or damage may exist in concealed areas, eg framing timbers. An **INVASIVE INSPECTION** is strongly recommended in this case. Activity and/or damage may only be found when wall linings, cladding or insulation are removed to reveal previously concealed timbers.

**COMPLAINTS PROCEDURE.** Should any disagreement, dispute or claim arising as a result of this inspection or report, it is a condition that you shall give written Notice of such matter to us as soon as possible after you first become aware of the matter. You shall allow us and/or our agent access to the property and allow any inspections required by us or our insurance company. If the dispute is not resolved within thirty (30) days from the service of the Notice then the matter shall be decided by mediation and if required arbitration and shall be submitted for binding, non-appealable arbitration to the Institute of Arbitrators and Mediators of Australia, unless the parties mutually agree otherwise. In any event you shall allow the Inspections by us and/or our agents prior to any repairs being carried out. If you do not allow

such inspections then you waive the right to make the claim on us. You further agree not to disturb or repair or have repaired anything which may constitute evidence relating to the complaint, except in the case of an emergency.

## IMPORTANT INFORMATION

### IMPORTANT INFORMATION

**Very important information:**

The following information forms an integral part of this report.

**In relying upon this report you should read and understand the following important information. It will help explain what is involved in a timber pest inspection, the difficulties faced by a timber pest inspector and why it is not possible to guarantee that a property is free of timber pests. It also details important information about what you can do to help protect your property from timber pests. This information forms an integral part of the report.**

#### **1.0 DEFINITIONS FROM AS 4349.3-1998**

**1.1 Active** The presence of live termites, borers or fungi at the time of inspection.

**NOTE:** Where visual evidence of termite workings and/or damage is located but no live termites found, it is possible that termites may still be active in the immediate vicinity and the termites may continue to cause further damage. It is not possible, without benefit of further investigation and inspections over a period of time, to ascertain whether any infestation is active or inactive. Continued, regular, inspections are essential.

**1.2 Timber Damage:** Where this report includes comments in relation to the severity of timber damage, it must be understood that this is not a qualified builder's opinion. It is essential that any timber damage reported be referred to a suitably qualified building professional and obtain a special purpose building report relating to the extent of the timber damage. The full extent of damage may only be revealed by an invasive inspection. This includes probing and the removal of lining materials. When this type of invasive inspection is carried out and you may find that the extent and/or severity of timber damage is much greater than is indicated in this report. The references contained within this report that may refer to the extent of timber damage have only been included to assist in determining treatment specifications and not to quantify the damage and must not be relied upon to determine the costs of repair or replacement.

#### **2.0 REASONABLE ACCESS AS DEFINED IN AS 4349.3-1998**

Only areas to which reasonable access is available were inspected. The Australian Standard 4349.3 defines reasonable access as "**areas where safe, unobstructed access is provided and the minimum clearances specified below are available or, where these clearances are not available, areas within the inspector's unobstructed line of sight and within arm's length. Reasonable access does not include removing screws and bolts to access covers.**" Reasonable access does not include the use of destructive or invasive inspection methods nor does reasonable access include cutting or making access traps or moving furniture, floor coverings or stored goods.

**Roof void:** Access hole 450 x 400mm, Crawl space 600 x 600mm, Accessible from 2.1m step ladder or where possible a 3.6m ladder placed against a wall. •

**Subfloor:** Access hole 500 x 400mm, Crawl space Vertical clearance: **Timber floor;** 400mm to bearer, joist or other obstruction & **Concrete floor;** 500mm. • •

**Roof Exterior:** Accessible from 3.6m ladder against a wall or 2.1m stepladder.

#### **3.0 A MORE INVASIVE AND PHYSICAL INSPECTION IS AVAILABLE AND RECOMMENDED**

This is a visual inspection only. As detailed above, there are many limitations to this visual inspection. With the permission of the owner of the premises we can arrange a more invasive physical inspection that involves moving or lifting: insulation, stored items, furniture, floor coverings or foliage during the inspection. We can then physically touch, tap, test and when necessary force/gouge suspected accessible timbers. We can then gain access to areas, where physically possible and considered practical and necessary, by way of cutting traps and access holes. This style of report is available by ordering it a giving several days notice. The inspection time for this style of report will be greater than for our visual inspection. It involves disruption in the case of an occupied property, and some permanent marking is likely. You must arrange for the written permission of the owner who must acknowledge all the above information and confirm that our firm will not be held liable for any damage caused to the property. Price available on request.

#### 4.0 CONCRETE SLAB HOMES (Part or full slab)

Homes constructed on concrete slabs pose special problems with respect to termite attack. If the edge of the slab is concealed by concrete paths, patios, pavers, garden beds, lawns, foliage, etc then it is possible for termites to effect concealed entry into the property. They can then cause extensive damage to concealed framing timbers. Even the most experienced inspector may be unable to detect their presence due to concealment by wall linings. Only when the termites attack timbers in the roof void, which may in turn be concealed by insulation, can their presence be detected. Where termite damage is located in the roof it should be expected that concealed framing timbers will be extensively damaged. **With a concrete slab home (in part or full) it is imperative that you expose the edge of the slab and ensure that foliage and garden beds do not cover the slab edge.** This may involve removal of soil, gardens, lawn, paths and pavers etc. The Australian Standard AS 3660.2-2000 recommends that at least 75mm of the slab edge should be exposed at all times. This area should be regularly inspected for signs of termite entry (mud tubes). **Weep holes must be kept free of obstruction.** Termite can and do gain entry around penetrations such as pipes etc and through cracks in the slab or joins between the slab and walls etc. Again such entry is often concealed by floor coverings.

#### 5.0 EVIDENCE OF TERMITE DAMAGE

Where evidence of termite damage was noted in any structure or on the grounds of the property, you must understand that termite damage or activity may exist in concealed areas. Termites are secretive by nature and they will often temporarily desert their workings to later return. As damage or activity may exist in concealed or inaccessible areas, a further invasive inspection is strongly recommended. (see Section 3.0 above) The Australian Standard AS 3660.2-2000 Section 3.2.4 says **"Regular, competent inspections should be carried out at least on an annual basis but more frequent inspections are strongly recommended."**

#### 6.0 ELEVATED MOISTURE (High moisture reading)

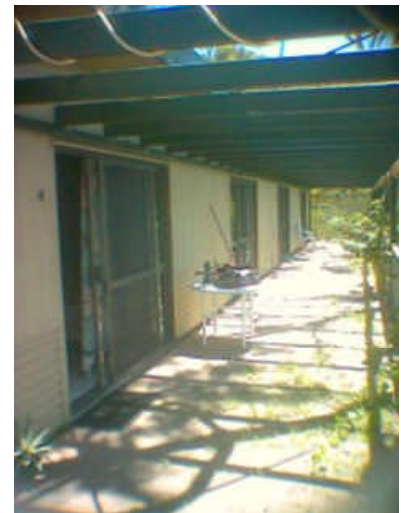
Elevated moisture readings means a reading on a moisture meter that is higher than the norm for other parts of the structure. Such elevated readings should be investigated by invasive means as the presence could indicate a leak or may indicate timber pest activity and damage.

## PROPERTY DESCRIPTION

### DESCRIPTION OF STRUCTURE(S) INSPECTED

**The property inspected is a**

Single storey unit residence, built from weather-board, built from fibro sheeting, set on a concrete slab, and an iron roof.



## ROOF VOID

Access to normal roof cavity areas (roof voids) are limited by such things as the method of construction, the pitch, insulation, sarking and inaccessible areas such as the eaves. In some cases stored household goods can restrict access or make inspection impossible.

### Access

#### No Access gained

A roof void appears to be present but is not accessible as no entry point could be located from within the inspected structure. You should arrange access and then have the inspection carried out as timber pest activity and/or damage may be present.

## INTERIOR

### Active Subterranean Termites Found

#### Termite Activity

Active (live) termites (white ants) were found mainly but not limited to the following timbers and the areas listed below.

#### Location

Dining room.

#### The termites are believed to be

Nasutitermes spp and can cause moderate to large amounts of timber damage. A treatment is required. Failure to eradicate these termites may result in extensive damage to the property.

### Termite Damage

#### Damage caused by termites

Timber damage caused by termites and/or termite workings was found. Where damage or workings are found but no live termites were present at the time of the inspection then you must realise that it may be possible that termites are active in the immediate vicinity and that the termites may return and cause further damage to the property. It is not possible, without the benefit of further investigation and a number of inspections over a period of months, to ascertain whether any infestation is active or not. The termites may simply not be present at the time of this inspection due to a disturbance, climatic conditions, or they may be utilising an alternative food source. Regular inspections are essential. Unless written evidence of a termite protection program that fully meets the requirements of the Australian Standard "AS 3660" is provided, a treatment to this standard is strongly recommended. The termite damage was mainly but not limited to the areas listed below but there may well be concealed damage and you should consult a building expert.

#### Affected timbers

Wall frame.

**Location** Dining room roof.



**Severity** The visible damage to the timbers appears to be moderate to extensive. Further damage probably exists in concealed areas. We recommend that you have a building expert report on the extent of the damage and the details of any repairs required. Please refer to the definitions section of this report - Section 1.2 - Timber Damage.

**Wood Decay Fungi:**

**Description** Water Damage which can be the beginning of wood decay fungi (wood rot) activity and damage was found in the following area(s):-



**Affected timbers** Cupboards.

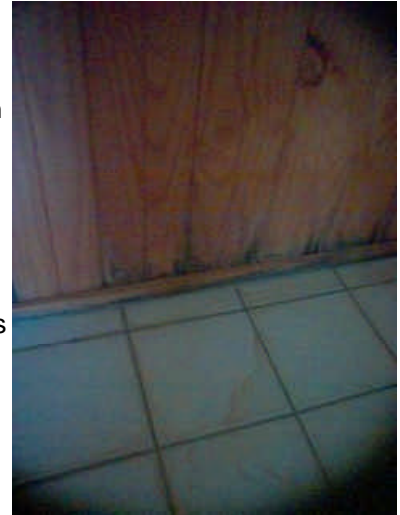
**Location** Bathroom.

**Severity** The visible damage to the timbers appears to be moderate to extensive. Further damage probably exists in concealed areas. We recommend that you have a building expert report on the extent of the damage and the details of any repairs required. Please refer to the definitions section of this report - Section 1.2 - Timber Damage.

## Conductive conditions

### Elevated Moisture level detected

Elevated moisture levels were detected to some internal walls as noted below. This can be an indicator of a free moisture source (water leak) or possible timber pest activity. In all cases where an elevated moisture level is encountered, we STRONGLY RECOMMEND further investigations be carried out to determine the cause of this situation. Further investigations may include an INVASIVE INSPECTION. The vendors written permission will be required prior to further inspections being carried out. Invasive inspections are carried out at an additional cost.



**Location** Bathroom.

## SUBFLOOR

### Slab areas

#### Slab areas

The property is constructed on a concrete slab foundation to which there is no subfloor for inspection. See important information in Section 4.0 Concrete Slab Homes (Part or Full Slab).

## EXTERNAL

### Active Subterranean Termites Found

#### Termite Activity

Active (live) termites (white ants) were found mainly but not limited to the following timbers and the areas listed below.

#### Affected timbers

Loose timbers , Door frame timbers.



#### The termites are believed to be

Nasutitermes spp and can cause moderate to large amounts of timber damage. A treatment is required. Failure to eradicate these termites may result in extensive damage to the property.

#### Severity

The visible damage to the timbers appears to be moderate. Further damage may exist in concealed areas. You should have a building expert report on the extent of the damage and the details of any repairs required. Please refer to the definitions section of this report - Section 1.2 - Timber Damage.

### Termite Damage

#### Damage caused by

## termites

Mud packing caused by termites was found. Where mud packing is found but no live termites were present at the time of the inspection then you must realise that it may be possible that termites are active in the immediate vicinity and that the termites may return and cause further damage to the property. It is not possible, without the benefit of further investigation and a number of inspections over a period of months, to ascertain whether any infestation is active or not. The termites may simply not be present at the time of this inspection due to a disturbance, climatic conditions, or they may be utilising an alternative food source. Regular inspections are essential. Unless written evidence of a termite protection program that fully meets the requirements of the Australian Standard "AS 3660" is provided, a treatment to this standard is strongly recommended. The termite mud packing was mainly but not limited to the areas listed below but there may well be concealed damage and you should consult a building expert. Timber damage caused by termites and/or termite workings was found. Where damage or workings are found but no live termites were present at the time of the inspection then you must realise that it may be possible that termites are active in the immediate vicinity and that the termites may return and cause further damage to the property. It is not possible, without the benefit of further investigation and a number of inspections over a period of months, to ascertain whether any infestation is active or not. The termites may simply not be present at the time of this inspection due to a disturbance, climatic conditions, or they may be utilising an alternative food source. Regular inspections are essential. Unless written evidence of a termite protection program that fully meets the requirements of the Australian Standard "AS 3660" is provided, a treatment to this standard is strongly recommended. The termite damage was mainly but not limited to the areas listed below but there may well be concealed damage and you should consult a building expert.

### Affected timbers

Door frame timbers, loose timbers.

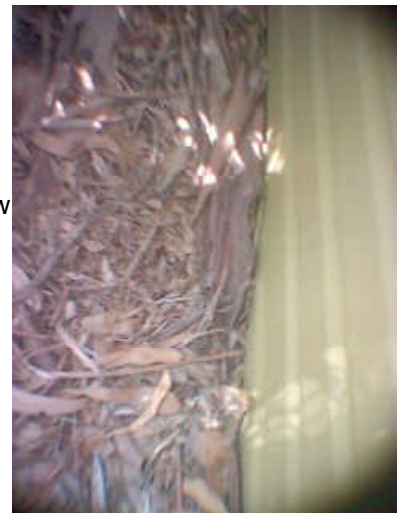
### Severity

The visible damage to the timbers appears to be moderate. Further damage may exist in concealed areas. You should have a building expert report on the extent of the damage and the details of any repairs required. Please refer to the definitions section of this report - Section 1.2 - Timber Damage.

## Conditions Conducive to a Termite infestation

### Description

Loose timbers are present and in contact with the external soil. Timbers such as these are highly attractive to subterranean termite attack and should be removed. The level of some external paths, paved areas or soil is either higher than, or at a similar level, as that of the internal floors. This situation could allow concealed termite entry. We strongly recommend the lowering of these to below the internal floor level to reduce the risk of concealed termite entry.



## OUTBUILDINGS

### Description of Outbuildings

**List of  
outbuildings**

No outbuildings were present at the time of inspection:

## FENCES

### Comments:

**The Fences  
were not  
Inspected**

because no boundary fences were present within 50 metres of the main inspected structure.

## ENVIRONMENTAL CONDITIONS

### Environmental conditions can make a property more or less prone to timber pest attack.

**DRAINAGE**

Good drainage is especially important particularly in the subfloor and along sides of the outside walls of the building(s). Poor drainage increases the likelihood of timber pest attack. Whilst not a plumber it appears that at the time of the inspection, drainage seems generally adequate.

**SLAB EDGE**

Where the external concrete slab edge has been concealed by paths, patios, pavers, soil, lawn, gardens, etc it is possible for termites to gain concealed entry into a building. The slab edge has been particularly or completely concealed. Termites can gain concealed entry into the external walls (this may already be the case) and may then not be detected until they cause damage either to the inside of the building or the roof void timbers. You should obtain written details of any termite barrier that may have been installed to overcome the concealing of the slab edge. If no such barrier has been installed or the expected life of the barrier has passed or is about to pass then you should arrange for the slab edge to be exposed or a termite barrier to be installed.

**RISK  
ASSESSMENT**

The Australian Standard AS 4349.3-1998 requires the inspector give some indication as to the risk of termite attack on the inspected property. The overall risk of termites was considered to be high. A termite barrier or monitoring system is required to be installed in accordance with AS 3660.2-2000 followed by at least yearly inspections. Failure to follow our recommendation may well result in the property undergoing very large amounts of damage caused by undiscovered termites.

**General remarks:** A more thorough INVASIVE INSPECTION is available. Where any current visible evidence of Timber Pest activity is found it is strongly recommended that a more invasive inspection is performed. Trees on the property up to a height of 2m have been visually inspected, where possible and practicable, for evidence of termite activity. It is very difficult, and generally impossible to locate termite nests since they are underground and evidence in trees is usually well concealed. We therefore strongly recommend that you arrange to have trees test drilled for evidence of termite nests.

**Important Maintenance Advice regarding Integrated Pest Management for Protecting against Timber Pests**

Any structure can be attacked by Timber Pests. Periodic maintenance should include measures to minimise possibilities of infestation in and around a property. Factors which may lead to infestation from Timber Pests include situations where the edge of the concrete slab is covered by soil or garden debris, filled areas, areas with less than 400mm clearance, foam insulation at foundations, earth/wood contact, damp areas, leaking pipes, etc; form-work timbers, scrap timber, tree stumps, mulch, tree branches touching the structure, wood rot, etc. Gardens, pathways or turf abutting or concealing the edge of a concrete slab will allow for concealed entry by timber pests. Any timber in contact with soil such as form-work, scrap timbers or stumps must be removed from under and around the buildings

and any leaks repaired. **You should endeavour to ensure such conditions DO NOT occur around your property.**

**It is strongly recommended that as a minimum a full Inspection and Report be carried out every six months. Regular inspections DO NOT stop timber pest attack, but are designed to limit the amount of damage that may occur by detecting problems early.**

We further advise that you engage a professional pest control firm to provide a termite management program in accord with AS 3660 to minimise the risk of termite attack. There is no way of preventing termite attack. Even AS 3660 advises that "*the provision of a complete termite barrier will impede and discourage termite entry into a building. It cannot prevent termite attack. Termites can still bridge or breach barriers but they can be detected more readily during routine inspections.*"

**DISCLAIMER OF LIABILITY:- No liability shall be accepted on account of failure of the Report to notify any Termite activity and/or damage present at or prior to the date of the Report in any areas(s) or section(s) of the subject property physically inaccessible for inspection, or to which access for Inspection is denied by or to the Licensed Inspector (including but not limited to any area(s) or section(s) so specified by the Report).**

**DISCLAIMER OF LIABILITY TO THIRD PARTIES:- This Report is made solely for the use and benefit of the Client named on the front of this report. No liability or responsibility whatsoever, in contract or tort, is accepted to any third party who may rely on the Report wholly or in part. Any third party acting or relying on this Report, in whole or in part, does so at their own risk.**

**You should read and understand the following important information. It will help explain what is involved in a timber pest inspection, the difficulties faced by a timber pest inspector and why it is not possible to guarantee that a property is free of timber pests. It also details important information about what you can do to help protect your property from timber pests. This information forms an integral part of the report.**

#### **SUBTERRANEAN TERMITES**

**No property is safe from termites!** Termites are the cause of the greatest economic losses of timber in service in Australia. Independent data shows that up 3 in every 4 homes will be attacked by termites at some stage in its life. Australia's subterranean termite species (white ants) are the most destructive timber pests in the world. In fact it can take "as little as 3 months for a termite colony to severely damage almost all the timber in a home".

**How Termites Attack your Home** The most destructive species live in large underground nests containing several million timber destroying insects. The problem arises when a nest matures near your home. Your home provides natural shelter and a food source for the termites. The gallery system of a single colony may exploit food sources over as much as one hectare, with individual galleries extending up to 50 metres to enter your home, where there is a smorgasbord of timber to feast upon. Even concrete slabs do not act as a barrier; they can penetrate through cracks in the slab to gain access to your home. They even build mud tubes to gain access to above ground timbers. In rare cases termites may create their nest in the cavity wall of the property without making ground contact. In these cases it may be impossible to determine their presence until extensive timber damage occurs.

**Termite Damage** Once in contact with the timber they excavate it often leaving only a thin veneer on the outside. If left undiscovered the economic species can cause many thousands of dollars damage and cost two to six thousand dollars (or more) to treat.

**Subterranean Termite Ecology** These termites are social insects usually living in underground nests. Nests may be in trees or in rare instances they may be in above ground areas within the property. They tunnel underground to enter the building and then remain hidden within the timber making it very difficult to locate them. Where timbers are concealed, as in most modern homes, it makes it even more difficult to locate their presence. Especially if gardens have been built up around the home and termite barriers are either not in place or poorly maintained. Termites form nests in all sorts of locations and they are usually not visible. There may be more than one nest on a property. The diet of termites in the natural environment is the various hardwood and softwood species growing throughout Australia. These same timbers are used in buildings. Worker termites move out from their underground nest into surrounding areas where they obtain food and return to nurture the other casts of termites within the nest. Termites are extremely sensitive to temperature, humidity and light and hence cannot move over ground like most insects. They travel in mud encrusted tunnels to the source of food. Detection of termites is usually by locating these mud tunnels rising from the ground into the affected structure. This takes an expert eye.

Termite barriers protect a building by forcing termites to show themselves. Termites can build mud tunnels around termite barriers to reach the timber above. The presence of termite tracks or leads does not necessarily mean that termites have entered the timber though. A clear view of walls and piers and easy access to the sub-floor means that detection should be fairly easy. However many styles of construction do not lend themselves to ready detection of termites. The design of some properties is such that they make the detection by a pest inspector difficult, if not impossible.

The tapping and probing of walls and internal timbers is an adjunct or additional means of detection of termites but is not as reliable as locating tracks. The use of a moisture meter is a useful aid for determining the presence of termites concealed behind thin wall panels, but it only detects high levels of activity. Older damage that has dried out will not be recorded. It may also provide false readings. Termite tracks may be present in the ceiling space however some roofs of a low pitch and with the presence of sisalation, insulation, air conditioning ductwork and hot water services may prevent a full inspection of the timbers in these areas. Therefore since foolproof and absolute certain detection is not possible the use of protective barriers and regular inspections is a necessary step in protecting timbers from termite attack.

### **Borers of Seasoned Timbers**

Borers are the larvae of various species of beetles. The adult beetles lay their eggs within the timber. The eggs hatch out into larvae (grubs) which bore through the timber and can cause significant structural damage. The larvae may reside totally concealed within the timber for a period of several years before passing into a dormant pupal stage. Within the pupal case they metamorphose (change) into the adult beetle which cuts a hole in the outer surface of the timber to emerge, mate and lay further eggs to continue the cycle. It is only through the presence of these emergence holes, and the frass formed when the beetles cut the exit holes that their presence can be detected. Where floors are covered by carpets, tiling, or other floor coverings and where no access to the underfloor area is available it is not possible to determine whether borers are present or not. This is particularly the case with the upper floors of a dwelling.

Borers of 'green' unseasoned timber may also be present. However these species will naturally die out as the timbers dry out in service. Whilst some emergence holes may occur in a new property it would be unusual for such a borer to cause structural damage, though the exit holes may be unsightly.

**Anobium borer (furniture beetle) and Queensland pine borer** These beetles are responsible for instances of flooring collapse, often triggered by a heavy object being placed on the floor (or a person stepping on the affected area!) Pine timbers are favoured by this beetle and, while the sapwood is preferred, the heartwood is also sometimes attacked. Attack by this beetle is usually observed in timbers that have been in service for 10-20 years or more and mostly involves flooring and timber wall panelling. The *frass* from the flight holes (faeces and chewed wood) is fine and gritty. Wood attacked by these borers is often honeycombed.

**Lyctus borer (powderpost beetle)** These borers only attack the sapwood of certain susceptible species of hardwood timber. Since it is a requirement that structural timbers contain no more than 25% Lyctus susceptible sapwood these borers are not normally associated with structural damage. Replacement of affected timbers is not recommended and treatment is not approved. Where decorative timbers are affected the emergence holes may be considered unsightly in which case timber replacement is the only option. Powderpost beetles mostly attack during the first 6-12 months of service life of timber. As only the sapwood is destroyed, larger dimensional timbers (such as rafters, bearers and joists) in a house are seldom weakened significantly to cause collapse. In small dimensional timbers (such as tiling and ceiling battens) the sapwood may be extensive, and its destruction may result in collapse. Replacement of these timbers is the only option available.

### **TIMBER DECAY FUNGI**

The fruiting bodies of wood decay fungi vary in size, shape and colour. The type of fungi encountered by pest controllers usually reside in poorly ventilated subfloors, below wet areas of the home, exterior timbers and in areas that retain water in the soil. The durability and type of timbers are factors along with the temperature and environment. Destruction of affected timbers varies with the symptoms involved. Removal of the moisture source usually alleviates the problem. Fungal decay is attractive to termites and if the problem is not rectified it may well lead to future termite attack.

## EVIDENCE OF TREATMENT & RECOMMENDATIONS

It is not always easy to determine if a property has been treated for subterranean termites particularly if such a treatment was carried out during construction or the evidence of a treatment has been concealed. Treatments may consist of physical or chemical barriers or a combination of both. This summary of treatment evidence is in no way conclusive. Where no visible evidence of treatment was found, it does not necessarily mean that the property was not or has not been treated. Some signs of treatment are not readily visible during an inspection. Where any evidence of a termite treatment was noted, and the treatment was not carried out by this firm, we can give no assurances with regard to the work performed or other work carried out as a result of timber pest attack. Further enquires should be made and any documentation obtained to verify work carried out. In cases where no evidence of visible treatment was noted, it would be prudent for purchasers to make their own enquires in relation to any treatment or previous termite protection carried out.

### **Evidence of termite treatment to the property**

**Description**                      There was no visible evidence of previous termite treatment.

### **Treatment Recommendations**

**Details**                                We recommend that a termite treatment be carried out in compliance with AS3660.2-2000 to increase the level of protection against subterranean termite attack.