IN THE SUPREME COURT OF VICTORIA
AT MELBOURNE
COMMERCIAL AND EQUITY DIVISION
BUILDING CASES LIST

Not Restricted

No. 7091 of 2000

AQUATEC-MAXCON PTY LTD
(ACN 002 250 482) Plaintiff

v

BARWON REGION WATER AUTHORITY Defendant

JUDGE:	BYRNE J
WHERE HELD:	Melbourne
DATES OF HEARING:	17-21, 24-27 October, 2-4, 7-11, 14-17, 21-25, 28-30 November, 1-2, 5-9, 12-15 December 2005
DATE OF JUDGMENT:	31 March 2006
CASE MAY BE CITED AS:	Aquatec-Maxcon Pty Ltd v Barwon Region Water Authority (No. 2)
MEDIUM NEUTRAL CITATION:	[2006] VSC 117

BUILDING CONTRACTS – defective design – liability under design and construct contract – continuing duty of design engineer.

CONTRACT – novation – construction of deed of novation – whether release of existing liability for defective design.

ESTOPPEL – conventional estoppel – whether assumed state of fact – whether assumed construction of deed of novation.

TORT – negligence – commercial construction project – succession of contracts - whether duty of care owed by designer to parties higher in the contractual hierarchy - duty of care owed by designer to parties lower in the contractual hierarchy.

PRACTICE AND PROCEDURE – whether underground sewerage tank a building – whether a building action – whether parties jointly or severally liable in damages – apportionment of judgment to reflect responsibility for the loss of the plaintiff.

Building Act 1993 ss. 129, 131.

APPEARANCES:	Counsel	Solicitors
For Aquatec-Maxcon Pty Ltd (Aquatec)	Mr R J Manly SC and Mr Bernard Carr	Gadens Lawyers
For Barwon Region Water Authority (Barwon)	Mr E N Magee QC, Mr Peter H Clarke and Dr Jennifer Beard	Harwood Andrews
For Nacap Pty Ltd (Minson Nacap)	Mr T J Margetts and Ms Suzanne Kirton	Moray & Agnew
For MWH Pty Ltd (Montgomery Watson)	Mr D S Levin QC, Mr I H Percy and Ms Georgina Costello	Monahan + Rowell
For Wynton Stone Australia Pty Ltd (Wynton Stone) and for Mr Sloggett	Mr J H Gobbo QC and Mr David J O'Callaghan SC	Deacons

There was no appearance for ACN 007 015 965 Pty Ltd (in liq) (Fisher Stewart)

For JJP Geotechnical Engineering Pty Ltd (Barrett Fuller)	Mr John R Dixon	Phillips Fox
For Taylor Thomson Whitting Pty Ltd (TTW)	Ms L Chan	Minter Ellison

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HIS HONOUR:

INTRODUCTION

1 Sometime prior to 1996 the authorities responsible for the provision of sewerage in the Colac and Otway regions determined to construct two sewerage treatment plants, one at Lorne and one at Apollo Bay in the State of Victoria. By 1996 the successor in title to these authorities was the firstnamed defendant, Barwon Region Water Authority ("Barwon").[1] Barwon accordingly retained a firm of consulting engineers, the fifth defendant by counterclaim, Fisher Stewart Pty Ltd ("Fisher Stewart")[2]. In due course, tenders were called from contractors for the design and construction of the plants. The successful tenderer was the plaintiff, Aquatec-Maxcon Pty Ltd ("Aquatec"), which on 24 March 1997 entered into a contract with Barwon to carry out the design, construction, and commissioning of the plants for $6,426,847. This head contract incorporated as general conditions the standard form Design and Construct Contract AS 4300-1998, subject to certain modifications.

2 In fact, the particular expertise of Aquatec lay in the mechanical aspects of the proposed plants. In the preparation of its successful tender it was assisted by an engineering construction contractor, the second defendant by counterclaim, Nacap Australia Pty Ltd ("Minson Nacap"),[3] and by a civil design engineer, the third defendant by counterclaim, MWH Australia Pty Ltd ("Montgomery Watson").[4] Upon the winning of the contract, Aquatec entered into a back-to-back sub-contract with Minson Nacap on or about 5 March 1997 whereby Minson Nacap undertook the design and construction of the civil works associated with the project. This sub-contract incorporated the standard form general conditions of sub-contract for Design and Construct, AS 4303-1995, with similar modifications. Minson Nacap, in turn, sub-let the design of the civil and structural works, including hydraulics and

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1 Then called Otway Region Water Authority.

2 The company has since gone into voluntary members winding up and has changed its name to ACN 007 015 965 Pty Ltd (in liquidation). I shall, nevertheless, continue to refer to the company as Fisher Stewart.

3 Then called Minson Constructions Pty Ltd. The name of this company was later changed to Minson Nacap Pty Ltd and I shall refer to it under this name which was used generally in this proceeding.

4 This company, which was called Montgomery Watson Australia Pty Ltd at the time of the project has undergone name changes since that date. I shall refer to it by its then current name.

architectural aspects, to Montgomery Watson by a design services agreement entered into about the same time.

3 But Montgomery Watson did not carry out the whole of this design work itself. On or about 4 April 1997 it engaged a sub-consultant design engineer, the fourth defendant by counterclaim, Wynton Stone Australia Pty Ltd ("Wynton Stone") to perform certain design work with respect to the structural parts of the work.[5] The architectural design was also sub-let to a firm of architects. The principal of Wynton Stone at the time was the third party, Clifford Alfred Matthew Sloggett.

4 Under the terms of the head contact Aquatec undertook responsibility for the investigation of the geotechnical aspects of the sites and their suitability for the structures to be erected on them. This was part of the work sub-let to Minson Nacap and in turn to Montgomery Watson. Certain geotechnical investigation was entrusted to a firm of geotechnical engineers, the fifthnamed defendant by counterclaim, JJP Geotechnical Engineering Pty Ltd[6] ("Barrett Fuller"). There is an issue as to whether Barrett Fuller was engaged by Wynton Stone or by Montgomery Watson and as to the scope of work it was engaged to perform. For reasons which will appear, I am satisfied that Barrett Fuller was in fact engaged by Wynton Stone.[7]

5 The project was to be performed in three stages: the first stage was the design phase; the second the construction phase and the third the commissioning phase. The design phase was, under the terms of the head contract, to be completed within 12 weeks of the start date in January 1997, the construction phase to achieve practical completion by 12 December 1997, and the commissioning phase by March 1998.

6 On 6 May 1997, shortly after the completion of the design phase, Mr Sloggett became employed by another engineering company, the seventhnamed defendant by counterclaim, Taylor Thomson Whitting Pty Ltd ("TTW") taking the Barwon sewerage treatment plants contract with him. He continued to work on the project,

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5 There is a dispute about the scope of works the subject of this agreement to which I shall return.

6 This company then carried on its business under the firm name Barrett Fuller Partners and I shall refer to it as such.

7 See para [174] below.

but as an employee of TTW. I conclude also that after this date Barrett Fuller was retained by TTW.

7 In October and November 1997 cracking appeared in the aerator tanks comprising part of the Apollo Bay plant. In February 1998 cracking also appeared in the tanks at Lorne. As a consequence of these failures and of the investigations which were undertaken following them, Barwon, on 8 July 1998, pursuant to cl. 44.6 of the head contract, took the civil work from Aquatec and engaged another contractor, Concrete Construction Group Ltd, to perform the remedial and other necessary work to complete the civil work.

8 The Minson Nacap sub-contract was terminated about the same time and, in turn, the contracts which depended on it were terminated: the Montgomery Watson design services agreement, the Montgomery Watson sub-consulting agreement with TTW, and the retainer of Barrett Fuller. When the civil work was completed Aquatec returned to the project to complete the electrical and mechanical work and to undertake the stage three commissioning. Stage two achieved practical completion on 16 December 1998 and stage three on 13 December 1999. On 23 January 2001, following the expiry of the 12 month defects liability period, the superintendent issued to Aquatec his sixteenth and final certificate.

9 Against this background, two proceedings have been commenced in the Court.

- Proceeding No. 5083 of 2000, in which Minson Nacap sued Aquatec for moneys payable pursuant to a number of certificates and some uncertified progress claims. To this claim Aquatec filed a counterclaim alleging defective work. In April 2001, this proceeding was stayed on the basis that the issues raised in it might conveniently be dealt with in this proceeding.

- This proceeding, No. 7091 of 2000, in which Aquatec sues Barwon for about $1.5M as money due under certificate 16.

10 The claim of Aquatec in this proceeding provoked a counterclaim by Barwon which

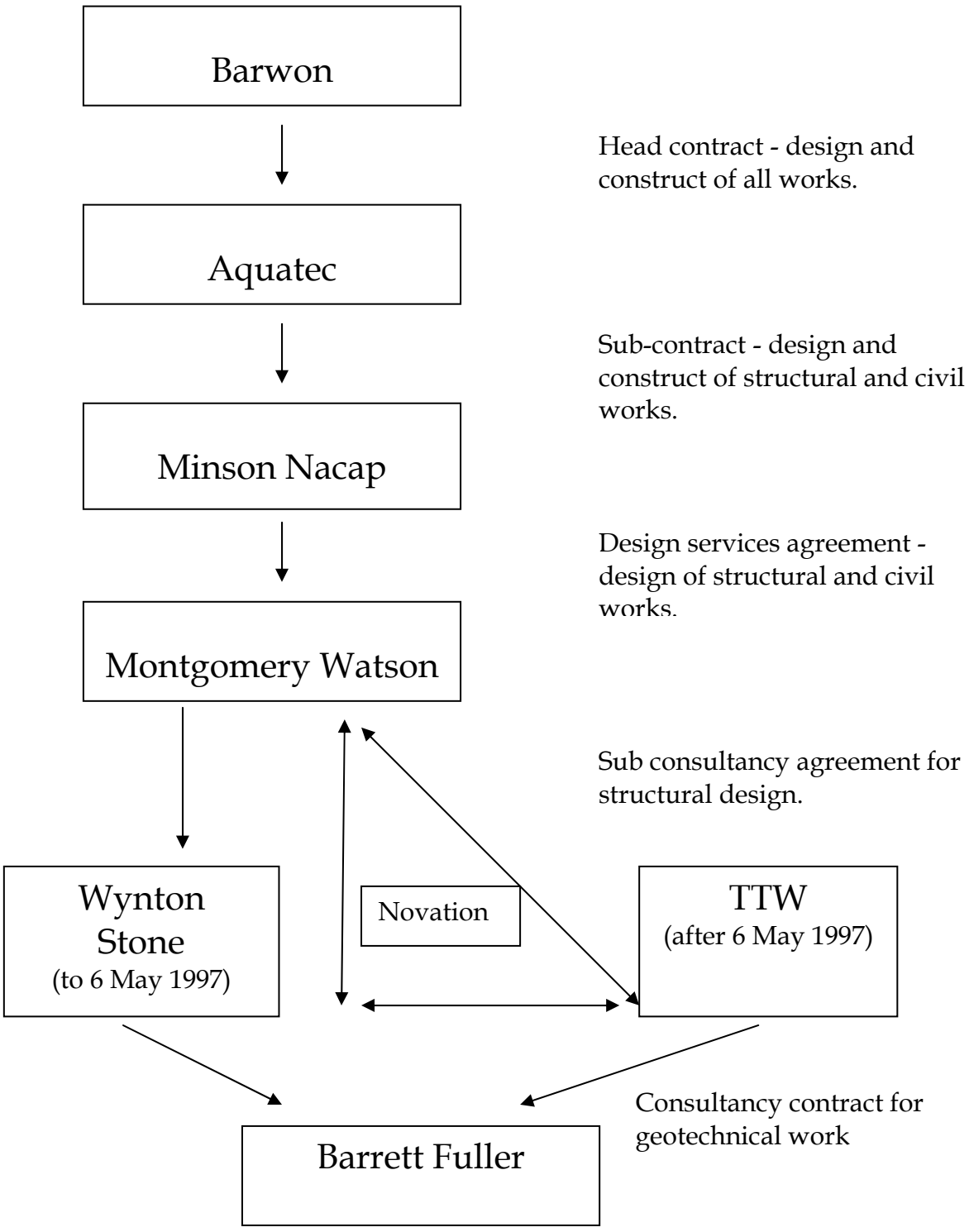
seeks the sum payable under the same certificate 16. Included in this certificate were a number of items which the superintendent had deducted from the value of the work completed. These items included expenses incurred by Barwon as a consequence of the failure of the tanks in October and November 1997. These and other less significant deductions had the consequence that, by certificate 16, the superintendent certified that $3,686,484, the sum claimed by Barwon in its counterclaim, was due from Aquatec to Barwon.

11 In general terms, the responsibility for and causes and financial consequences of the failure of the tanks represented the principal areas of dispute at this trial. But this was not so much a dispute between Barwon and Aquatec because, under the head contract, Aquatec had assumed responsibility for both the design and the construction of the works. Nor was there very much dispute on this matter between Aquatec and Minson Nacap, for Minson Nacap, too, had a design and construct obligation with respect to the civil and structural works of which the tanks were a part.

12 Following a conclave of the engineering consultants engaged by the parties, there was general agreement that the cause of the failure was a design error. The designer failed to make provision sufficient to protect the works from hydrostatic pressure bearing upon the unfilled aerator tanks both at Apollo Bay and Lorne. This pressure, caused the base and sloping side slabs to crack at Apollo Bay and the sloping side slabs to crack at Lorne. All of Aquatec, Minson Nacap and Montgomery Watson accepted this finding and the consequence of it, that each of them was in breach of the design obligation owed under its contract with the next party up the contractual chain.

13 The design engineer, Montgomery Watson, sought to pass this responsibility to Wynton Stone whose Mr Sloggett was the engineer who attended to the design and to TTW for design work after Mr Sloggett transferred to TTW in May 1997. And all of the design engineers sought to pass the responsibility to Barrett Fuller who carried out certain geotechnical investigations in February 1997.

14 In summary, the contractual arrangements between the participants in the project were as follows:



THE PROCEEDING

PROCEDURAL MATTERS

15 The proceeding is procedurally, and otherwise, very complex - far more complex than the fairly straightforward contractual hierarchy would warrant. The pleadings, not including separately delivered particulars and schedules, run to over 750 pages. In the course of the opening, counsel for Barwon informed me that I would not be greatly assisted by them. I was told that many of the pleaded claims were no longer pressed and that the issues in the case would emerge as the trial proceeded. This view was supported by most of the other parties. With some misgivings, I was content to proceed on that basis until it soon became apparent that, in a case of this complexity, such a course was leading to a failure on the part of the parties to address the issues in an organised and disciplined way. Moreover, it made it difficult for me as trial judge to understand the significance of the considerable volume of evidence that was presented, particularly in the early days of the trial, and impossible for me to rule on matters of relevance and to know what was to be dealt with in my judgment. Accordingly, I began to encourage the parties to focus on their pleaded allegations and responses so as to expose the questions in issue. I told them that I would determine this case only upon the issues which emerged from the pleadings and, even then, only on those issues which were pressed in final address. This had the consequence that there were frequent amendments even involving substantial shifting of positions, and this continued up to the closing days of the evidence. Even so, as will be seen, the pleadings generally lacked the rigour which might be expected in a proceeding in this Court. This has meant that much evidence was not focused on issues and that, in this judgment, I have had to unravel arguments which I venture to describe as woolly and to pursue a number of issues which ultimately were of no significance.

16 As might be expected, each of the parties makes claims in contract against the party with whom it had an agreement in the contractual hierarchy. The claims contain numerous alleged shortcomings in the design and, in some cases, the construction of the tanks. These claims were bolstered, if that be the correct expression, by the

regrettably familiar practice as presenting the same allegations as breaches of duty of care and as misleading and deceptive conduct. As will be seen, these alternative claims, after provoking an enormous amount of cost and effort in their formulation, in the formulation of responses to them, and in the preparation and presentation of evidence with respect to them, were abandoned or not pressed by the time of final addresses. As is so often the case, the presentation of these alternative claims, where the contractual remedy was clearly appropriate and available, seems to have served no purpose other than to complicate the proceeding and to inflate the enormous costs which the unfortunate parties have been required to bear. There were also claims for contribution between all defendants pursuant to s. 23B of the *Wrongs Act* 1958.

17 The procedural complexity attending the proceeding and, I suspect, a cause for great difficulty in achieving a commercial settlement of these disputes, has been, to a very large extent, the consequence of the suggested operation of the apportionment of liability provisions of s. 131 of the *Building Act* 1993. I shall turn to this legislation in some detail in due course. In general terms, the Court must, in a proceeding to which the section applies, give against each defendant who is found to be jointly or severally liable to a plaintiff for damages, judgment only for such proportion of the total amount of damages as the Court thinks just and equitable having regard to the extent of that defendant's responsibility for the loss and damage of the plaintiff.

18 The plaintiff in this proceeding is not the proprietor, Barwon, but the head contractor, Aquatec. Its claim is brought for the unpaid balance of the certified value of its work. In fact, certificate 16 is a hybrid certificate. In it, the superintendent valued the cost of completing the works which had been taken from Aquatec and debited Aquatec with this cost pursuant to cl. 44.6 of the AS 4300 general conditions. He also gave a final certificate under cl. 42.6. In its claim, Aquatec, until a very recent amendment, sought to enforce part only of this certificate, leaving to one side the very substantial debit items under cl. 44.6. It quickly became apparent that this claim was of no substance and counsel for Aquatec has accepted this. The focus then

shifted to the Barwon counterclaim.

19 As I have mentioned, the Barwon counterclaim is brought against Aquatec only. In it, Barwon seeks $3,686,464 plus interest being the amount certified to be payable under certificate 16. This claim is not a claim for damages. Following the issue of this certificate, each of Aquatec and Barwon gave notice of dispute under cl. 42.6 and 47 of the AS 4300 general conditions. The giving of these notices, it is said by Aquatec, denies the certificate finality under either of cll. 42.6 or 44.6, so that Barwon seeks, in the alternative, that I revisit the content of the certificate so as to determine the amount owing to Barwon under the head contract. Again, this is not a claim for damages. In a very recent amendment,[8] however, it does seek, in the further alternative, damages for Aquatec's breaches of its head contract. The breaches alleged are the defective design work.

20 And so, Aquatec, wishing to rely upon s. 131 as defendant to the Barwon counterclaim, had no other defendant to the Barwon counterclaim with which to share any apportionment of liability under that section. Moreover, it had to address the fact that Barwon did not wish to pursue any other party alleging joint or several liability with Aquatec. These apparently insuperable obstacles were sought to be overcome when, on 16 March 2000, Aquatec as defendant to the Barwon counterclaim, joined Minson Nacap, Montgomery Watson, Wynton Stone, Barrett Fuller and Fisher Stewart as defendants to counterclaim[9]. TTW was joined as a further defendant to the counterclaim by order of 7 February 2003. Barwon, however, maintained and still maintains its position that it does not wish to sue these added defendants and seeks no relief against them.

21 I interpolate at this stage that, having achieved the joinder, Aquatec thereafter exhibited some ambivalence towards its s. 131 claim. On day 10 of the proceeding, its counsel informed me that the claim was no longer pressed; on day 13 they told me that they repented this decision and that the claim was still alive. Finally, having

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8 Amended counterclaim filed 22 November 2005.

9 In accordance with decision of the Court of Appeal in *Boral Resources (Vic) Pty Ltd v Robak Engineering and Construction Pty Ltd* [1999] 2 VR 507.

settled certain issues with Barwon they told me that the claim was abandoned. Counsel for TTW exhibited a similar ambivalence but, finally, on day 16 she accepted that its apportionment claim should go forward. The ambivalence with respect to this claim exhibited by counsel for Minson Nacap was of a different order. Having made the claim in its pleadings, counsel contended in final address that s. 131 had no application but, in the alternative, that their client would accept its benefit with respect to the Aquatec claim if the statutory provision were available.

22 In accordance with the practice laid down in *Wimmera Mallee Rural Water Authority v FCH Consulting Pty Ltd*,[10] the original defendant was required to plead out the claims which it asserts might be brought by Barwon as counterclaimant against each of the added defendants in order to establish their liability to Barwon in damages and also to allege the matters relied upon by it as showing the responsibility of those defendants for Barwon's loss. Aquatec then contended that each other of them was in breach of a duty of care owed to Barwon and that Barwon thereby suffered loss and damage so that Barwon was entitled, notwithstanding that it makes no such allegation and seeks no such relief, to an award of damages against them jointly or severally. The consequence of this and of the application of s. 131 was, they contended, that Barwon should not have judgment against Aquatec for the full amount of its loss, as it contends, but rather, that loss should be apportioned in the judgment of the Court between all or some of the defendants in accordance with their responsibility for that loss. By way of response, each of the added defendants filed a defence to this Aquatec pleading and itself filed a pleading against each other defendant asserting an entitlement to apportionment against those others.

23 The matter is then rendered more complicated by the fact that there are claims for damages further down the contractual hierarchy: Aquatec sues Minson Nacap for damages, Minson Nacap sues Montgomery Watson for damages, and Montgomery Watson, in turn, sues Wynton Stone for damages. Each of these claims has provoked a claim for apportionment pursuant to s. 131 by those parties which stand or have

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10 [2000] VSC 102 at [22].

been added as defendants to the claim. To this complication I shall return later.

24 Furthermore, each of the defendants, in case s. 131 has no application, seeks contribution against each other defendant pursuant to s. 23B of the *Wrongs Act*.

25 I mention finally that, TTW sues Mr Sloggett, as third party, alleging that he has agreed to indemnify TTW against losses of the kind which it would incur if it suffered judgment at the hands of any party in this proceeding and satisfies that judgment.

26 I now turn to the detailed positions of the parties in these pleadings. This is not an easy task as the pleadings are numerous, voluminous, repetitive and of bewildering complexity. I shall content myself at this stage with identifying the causes of action and thereby, in broad terms, the issues for determination.

The Aquatec Claims

27 Aquatec is the plaintiff in this proceeding against Barwon. By an amendment to its statement of claim filed by leave on Day 24 of the trial[11] it recast its claims substantially. It then alleged that, for some unspecified reason, the final certificate should be set aside and the Court should so declare. Further it sought that the Court assess the damages of Barwon (not Aquatec) arising from the remedial civil works which it (Barwon) undertook, from the completion by Aquatec of the work which was taken out of Aquatec's hands, and for interest. As I have mentioned, all of this has fallen away. No relief is now sought against Barwon in this part of the proceeding.

The Barwon Claims

28 It is not easy to analyse the Barwon claims. This is not wholly due to their complexity, but rather because its position has shifted many times since the delivery of the last counterclaim filed on 2 May 2001 following the joinder of the defendants to counterclaim (other than TTW) by Aquatec. Its current pleading was filed on 22

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11 Second further amended statement of claim filed 22 November 2005.

November 2005.[12] Although this claim has been overtaken by events, at least insofar as it concerns Aquatec, it is necessary that I identify the claims made in it, for those are relied upon by those defendants to counterclaim seeking s. 131 relief.

29 Barwon sued Aquatec as the sole defendant to its counterclaim. Upon Aquatec's application on 16 March 2001, there were joined as further defendants Minson Nacap, Montgomery Watson, Wynton Stone, Barrett Fuller, Fisher Stewart. On 7 February 2003, TTW was added to the proceedings.

30 As counsel on its behalf told me on many occasions, Barwon seeks no relief against any of the defendants to counterclaim other than Aquatec. This said, there is, however, the following puzzling paragraph of its counterclaim:

> "29E. Barwon does not claim any relief against Minson, Montgomery Watson, Wynton Stone, JJP, Fisher and/or TTW additional to the relief sought against Minson, Montgomery Watson, Wynton Stone, JJP, Fisher and/or TTW consequent upon the joinder of those parties as Defendants to Barwon's Counterclaim pursuant to the Order made by Mr Justice Byrne on 16 March 2001."

31 Its claim against Aquatec is primarily for $3,686,464 due under certificate 16. Alternatively, if Aquatec's contention that this certificate has no finality is accepted, it alleges against Aquatec numerous breaches of the head contract. These breaches include, of course, defective work, both design and construction, incomplete work, late completion and failure of the plant to achieve the performance requirements of the specification.[13] It then alleges loss and damage and seeks damages.

32 These claims and the Aquatec claims against Barwon have been settled in terms that provide for Aquatec submitting to judgment in favour of Barwon the sum of $2,924,557.[14]

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12 Amended counterclaim.

13 Paragraph 45 of amended counterclaim filed 22 November 2005.

14 See para [87] below.

The Aquatec Claims Over

33 Having received the very substantial counterclaim from Barwon to which it had no real defence except as to quantum, Aquatec then brought claims over against Minson Nacap and the other defendants to counterclaim which it had joined.

34 These claims were made in three filed court documents.

(a) In its statement of claim[15] against Minson Nacap, Montgomery Watson, Wynton Stone, Barrett Fuller, Fisher Stewart and TTW, Aquatec, as defendant to the Barwon counterclaim sought against those parties an apportionment of its liability to Barwon pursuant to s. 131.[16] In their final address I was formally advised by counsel for Aquatec that this claim was not pursued.

(b) By notice of contribution in short form, Aquatec sought against those same defendants contribution pursuant to s. 23B of the *Wrongs Act*. This claim, too, was not pressed.

(c) By counterclaim filed in response to the counterclaim of Minson Nacap, it seeks against Minson Nacap damages for breaches of the sub-contract.

35 Minson Nacap admits the breach of the sub-contract and most of the damages claimed. It disputes only causation with respect to the claim for damages for interest payable by Aquatec to Barwon Water. This, then, is the first issue between these parties.

36 The remaining issue arises from the contention of Minson Nacap that it is entitled to apportionment in respect of its liability to pay the damages to Aquatec which it accepts liability to pay. This matter is more conveniently dealt with as part of the Minson Nacap claims.

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15 Amended statement of claim filed 21 February 2003.

16 With some misgivings, I proceed upon the unchallenged assumption that these parties are co-defendants to the Aquatec claim.

The Minson Nacap Claims

37 The claims made by Minson Nacap in this proceeding are contained in four court documents:

(1) Statement of claim against Aquatec.[17]

(2) Statement of claim against Montgomery Watson.[18]

(3) Notice of contribution claim against all other defendants.[19]

(4) Statement of claim against Montgomery Watson, Wynton Stone, Barrett Fuller, Fisher Stewart and TTW who were joined as further defendants to the Aquatec claim against Minson Nacap for the purpose of Minson Nacap seeking orders pursuant to s. 131.[20]

38 The statement of claim against Aquatec, court document (1), is a fairly typical building case claim brought by a sub-contractor against its contractor employer. In it Minson Nacap pursues the claims for sums payable under certificates 10 and 11 and, with respect to certificates, 13, 14 and 15 which showed a balance payable to Aquatec, it says that the certificates were issued late with the consequence that, in each case, the amount of the progress claim was payable by Aquatec.[21] Progress certificate 12 was a negative certificate. Next, Minson Nacap alleges a breach by Aquatec of its obligations under cl. 23 of AS 4303-1995 to ensure that the superintendent would act honestly, timeously and would arrive at a reasonable measure or value of the work. In this way, Minson Nacap seeks to reopen certificate 12. Individual components of this certificate and the later uncertified progress claims are then the subject of separate claims. These are claims in respect of unpaid variations under cl. 40, claims for extensions of time under cl. 35.5, claims for delay and disruption costs under cl. 36, and claims for acceleration costs under cl. 33.1. Furthermore, in various ways, Minson Nacap seeks damages for Aquatec's

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17 Amended statement of claim filed 26 August 2004.
18 Third amended statement of claim filed 29 November 2005.
19 Notice of claim filed 31 May 2004.
20 Statement of claim filed 4 March 2004. Again, I proceed on the basis that this joinder in fact occurred.
21 Paragraphs 8, 8A.

wrongful conversion into cash of the performance bond which it provided to Aquatec and for its receipt of the proceeds of the bond. Finally, Minson Nacap asserts that the termination of the sub-contract by Aquatec on 9 July 1998 was ineffective and amounted to a repudiation by Aquatec of the sub-contract which repudiation Minson Nacap accepted on 13 July 1998. As a consequence, it seeks damages or quantum meruit relief. The response of Aquatec to these claims, is contained in its defence and counterclaim.[22] As may be expected, it denies most of the Minson Nacap claims and alleges that Minson Nacap failed to exercise due care and skill in the performance of its work in breach of its contractual duties and its tortious duty of care. Its counterclaim claim for damages represents the value of most of the claims alleged against it by Barwon.

39 The second court document contains fairly conventional claims against Montgomery Watson as the party next down the contractual chain. Minson Nacap alleges that Montgomery Watson is in breach of its design obligations under the design services agreement and that, as a consequence, Minson Nacap has incurred liability to Aquatec. It seeks damages. Montgomery Watson now admits liability for the design breaches of contract and accepts most, but not all, of the components of the Minson Nacap damages claim.

40 In the third court document, Minson Nacap seeks contribution from all other defendants pursuant to s. 23B of the *Wrongs Act* 1958. This document, which is in the short form without any detail, is nevertheless a very complex document. The essential features of this statutory cause of action are as follows:

(a) The plaintiff has suffered loss.

(b) The loss is a consequence of the wrongful act of the party which seeks contribution.

(c) The persons from whom contribution is sought have also been guilty of

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22 Second further amended defence and counterclaim to the Minson Nacap statement of claim filed 13 October 2005.

wrongful acts towards the plaintiff.

(d) These acts have caused or contributed to the same loss as in (a).

41 The notice alleges that each of Barwon, Aquatec and Montgomery Watson has made claims against Minson Nacap alleging loss. I interpolate that this is certainly not the case with respect to Barwon.[23] What is then alleged is that each of these three claimants has claimed against the other defendants that their wrongful acts caused loss and that this loss is the same loss as is alleged against Minson Nacap. This apparently simple document, therefore, makes three different claims for contribution.

42 The fourth and final Minson Nacap court document makes the s. 131 claims. The document is entitled, and in paragraph 1 asserts, that its objective is to make Montgomery Watson, Wynton Stone, Barrett Fuller, Fisher Stewart and TTW co-defendants with Minson Nacap to the Aquatec counterclaim against Minson Nacap dated 19 February 2002. This was, of course, to attract the jurisdiction of the Court under s. 131 which is available only for defendants to a claim. These parties, with Minson Nacap, are already defendants to Barwon's claim and most of them are third parties to the claims against Montgomery Watson. I do not pause to consider whether and, if so, how this is may be so, for the parties are content to by-pass these essentially procedural matters.

43 The structure of the Minson Nacap s. 131 statement of claim is to allege against each of Montgomery Watson, Wynton Stone, Barrett Fuller, Fisher Stewart and TTW that it is in breach of a duty of care owed to Aquatec, as a consequence of which Aquatec will suffer loss and damage. It is then asserted that if Minson Nacap, too, is found liable to Aquatec, Minson Nacap is entitled to the benefit of the s. 131 apportionment.

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23 The notice alleges that Barwon in the Aquatec statement of claim of 21 February 2003 makes claims against Minson Nacap. This is not correct and cannot be correct.

44 The defences to this pleading join issue. Furthermore, Montgomery Watson[24] and Barrett Fuller allege that the damages to which Aquatec may be entitled should be reduced by reason of its contributory negligence. Finally, Wynton Stone and TTW plead the Statute of Limitations.

The Montgomery Watson Claims

45 The claims of Montgomery Watson are contained in one court document which is described as a statement of claim in third party proceedings to the Barwon counterclaim.[25] In it, Montgomery Watson seeks apportionment under s. 131 against third parties, Aquatec, Minson Nacap, Wynton Stone, Barrett Fuller, Fisher Stewart and TTW. It seeks to enforce against Wynton Stone an indemnity contained in its sub-consultancy agreement with Montgomery Watson. It also claims against Minson Nacap, Wynton Stone, Barrett Fuller, Fisher Stewart and TTW contribution pursuant to s. 23B of the *Wrongs Act*. These alternative claims for contribution and apportionment are rendered somewhat more complicated by reason of the fact that they are themselves put on a number of alternative bases.

(a) On the basis that Barwon is in the position of a plaintiff seeking damages or relief for loss caused by the wrongdoing of Aquatec, Minson Nacap, Wynton Stone, Barrett Fuller, Fisher Stewart, and TTW, as well as the wrongdoing of Montgomery Watson, and that each of them, as well as Montgomery Watson, is liable to Barwon for having caused this loss, counsel for Montgomery Watson accepted in their final address that this claim could not succeed given the fact that Barwon obtained no order for damages against Aquatec. I need therefore say nothing further about it.

(b) On the basis that Aquatec is in the position of a plaintiff seeking damages or relief against Minson Nacap, Wynton Stone, Barrett Fuller, Fisher Stewart and TTW as well as against Montgomery Watson and that each of them as well as Montgomery Watson is liable to Aquatec for its claimed loss.

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24 This contention was not pressed in final address.

25 Fifth amended statement of claim filed on 8 December 2005.

(c) On the basis that Minson Nacap is in the position of a plaintiff seeking damages or relief against Aquatec, Wynton Stone, Barrett Fuller, Fisher Stewart and TTW as well as against Montgomery Watson and that each of them as well as Montgomery Watson is liable to Minson Nacap for its claimed loss.

These claims involve a number of considerations, including the duty of care owed by each of these parties to Barwon, to Aquatec and to Minson Nacap and the various breaches of those duties. There are also in the pleadings allegations that Minson Nacap,[26] Barrett Fuller[27] and Fisher Stewart[28] breached duties of care owed to Montgomery Watson but no loss or damage is alleged and no relief was sought.

46 It will be recalled that Montgomery Watson in April 1997 sub-let the structural part of its design work to Wynton Stone and that this contract passed to TTW under the deed of novation of 6 May 1997. In fact, Wynton Stone had already performed work on the project prior to the April agreement[29] and had performed work extra to this agreement.[30] Montgomery Watson alleges against Wynton Stone that there was an implied term of its initial retainer[31] and of its April agreement[32] that it would perform its duties with due care. It is then said that Wynton Stone is in breach of this implied term of the April agreement[33] but not the earlier retainer. No loss is alleged. Damages are sought in the prayer for relief.

47 The April agreement is said also to contain an indemnity by Wynton Stone to hold Montgomery Watson harmless against the claims of third parties.[34] Montgomery Watson sets up this indemnity in the event that any party obtains relief against it.[35]

48 The deed of novation entered into between Montgomery Watson, Wynton Stone and

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26 Paragraph 24.
27 Paragraph 42.
28 Paragraph 47
29 Paragraph 31U.
30 Paragraph 33B.
31 Paragraph 31B.
32 Paragraph 33.
33 Paragraph 36.
34 Paragraph 33A.
35 Paragraph 37B.

TTW is said to contain a warranty by Wynton Stone that its work prior to 6 May 1997 had been performed in accordance with the April agreement.[36] It is then said that if the claims against Montgomery Watson are made out, Wynton Stone is in breach of its warranty and that loss and damage will be suffered by Montgomery Watson.[37]

49 Finally, Montgomery Watson alleges that TTW owed to it a tortious duty to perform its work with due skill and care[38] and that it breached this duty.[39] The loss alleged is the prospect that Montgomery Watson would be obliged to make payment of damages to Minson Nacap.[40]

50 Wynton Stone, in its defence[41], puts these allegations in issue and sets up the release provisions of the deed of novation in answer to the claims against it. The reply of Montgomery Watson[42] is itself a very complicated document. Incidentally, it includes a counterclaim to the Wynton Stone defence to the Montgomery Watson third party statement of claim. In its reply, Montgomery Watson seeks to avoid the impact of the release by contending in the alternative:

(a) the release was conditional upon the performance by Wynton Stone of the warranty contained in the deed of novation and that this warranty was not fulfilled;

(b) the unfulfilled warranty constitutes misleading and deceptive conduct;

(c) Wynton Stone made representations to the effect that, notwithstanding the novation to TTW, it, Wynton Stone, remained responsible for the design of the tanks and would be responsible for professional indemnity insurance. The repudiation of these representations constitutes misleading and deceptive conduct;

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36 Paragraph 33F(d), 33I.
37 Paragraph 33K.
38 Paragraph 34A, 34B and 35.
39 Paragraph 36.
40 Paragraph 36.
41 Defence filed 18 March 2004.
42 Amended reply filed 2 September 2005

(d) Wynton Stone is estopped from denying the truth of these representations;

(e) it is inequitable for Wynton Stone to rely upon the release.

51 In its rejoinder dated 21 September 2005 Wynton Stone joins issue with these allegations and puts in issue the allegation that Montgomery Watson was induced by any representation or circumstance to act to its detriment.

52 I return now to the Montgomery Watson statement of claim and, in particular, to its claims against TTW. Similar claims are made against this party in respect of its involvement in the project after 6 May 1997 as are made against Wynton Stone. The claims against it are that it was in breach of its tortious duty of care owed to Montgomery Watson and in breach of the April agreement made between Montgomery Watson and Wynton Stone, which agreement was assigned or novated to TTW under the deed of novation.[43] Although no loss and damage is alleged in the pleading, Montgomery Watson again seeks no damages in its prayer for relief.

53 It is convenient to mention at this point that, in answer to claims made against it, Montgomery Watson relies against TTW upon the indemnity contained in cl. 5.1 of its sub-consultancy agreement on the basis that this indemnity obligation has passed to TTW by the operation of the deed of novation.[44]

54 Finally, Montgomery Watson makes claims against Barrett Fuller. Its position is that Barrett Fuller was retained by Wynton Stone so that no claim is put in contract. It alleges against Barrett Fuller a breach of duty of care owed to it[45] but no loss or damage is alleged and no damages are sought. Its claim against this part is for apportionment on the basis that Barrett Fuller was in breach of duties owed to Barwon, Aquatec, Minson Nacap and Wynton Stone.[46]

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43 Paragraphs 33, 33G, 34A, 35, 36.
44 Paragraph 37B.
45 Paragraph 42.
46 Paragraph 42.

The Wynton Stone Claims

55 Wynton Stone makes no less than eight claims or groups of claims in its statement of claim addressed to its co-defendants[47]:

(1) Section 131 claims. What is here alleged is that each of Minson Nacap,[48] Montgomery Watson,[49] Barrett Fuller,[50] and Fisher Stewart,[51] owed Barwon a duty of care which duty was breached if any of the works were defective. Accordingly, if Wynton Stone is liable to Barwon each of those defendants is liable to share the loss with Wynton Stone pursuant to s. 131.[52] This claim was not pressed in final address.

(2) There appears to be a like s. 131 claim made with respect to the liability of Wynton Stone and those defendants to Aquatec and to Minson Nacap and to Montgomery Watson. But there are no allegations of duty to support this. I was told by counsel for Wynton Stone that their client was content to adopt the allegations as to this made by its co-defendants.

(3) In paragraphs 22 and 23 it is said that Barrett Fuller owed to Wynton Stone a duty of care and that it breached this duty. Consequent loss to Wynton Stone is alleged but no relief is sought. I was told in final address that this was not a cause of action; it merely provided a basis for s. 131 apportionment. As will appear, this cannot provide a basis for such a claim.

(4) Against Fisher Stewart there is an allegation that it breached its duty of care owed to Barwon or a term of its retainer by Barwon.[53] Loss to Barwon is alleged in paragraph 34, but the plea goes no further and no relief is sought. In final address this allegation was not pressed.

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47 Fourth further amended statement of claim filed by leave granted on 9 December 2005.
48 Paragraph 10.
49 Paragraph 15.
50 Paragraph 20.
51 Paragraph 27.
52 Paragraph 43.
53 Paragraphs 25, 26, 32 and 33.

(5) A further allegation against Fisher Stewart is that of misleading and deceptive conduct inasmuch as it failed to disclose, presumably to Wynton Stone, the contents of the 1995 MPA Williams report and a Sinclair Knight Merz report dated April 1995 regarding geotechnical aspects of the Apollo Bay site.[54] Wynton Stone then seeks damages pursuant to *Trade Practices Act* 1974 s. 82(1).[55]

(6) Against TTW, Wynton Stone claims an indemnity for losses of Barwon payable by Wynton Stone for the work performed by Wynton Stone which work passed to TTW under the deed of novation.[56]

The response of TTW to the claims made against it is another obscure document.[57] It repeats by reference a number of paragraphs apparently contained in an early defence dated 18 November 2003. It is not clear what these mean. It then makes some denials and, in paragraphs 5 to 11, sets out a mass of evidence which is said to raise an estoppel against Wynton Stone which would prevent it denying that the legal effect of the deed of novation was that:

> "(a) the design responsibility for the Lorne and Apollo Bay Sewerage Treatment Plant rests entirely with Wynton [Stone];
>
> (b) TTW's role in relation to the Lorne and Apollo Bay Sewerage Treatment Plant was one of inspections at the request of either Minson [Nacap] or Montgomery [Watson] to ensure compliance with design documentation; and
>
> (c) TTW does not bear any liability arising from the design of the Lorne and Apollo Bay Sewerage Treatment Plant."

The facts which are said to give rise to this estoppel are that Mr Sloggett, as a director of Wynton Stone, took the position that this was the effect of the deed of novation and that, in reliance upon this, TTW failed to notify its professional indemnity insurers and thereby lost the benefit of its policy.

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54 Paragraph 35.
55 Paragraph 37.
56 Paragraph 42.
57 Further amended defence filed 25 November 2005.

56 I return to the Wynton Stone statement of claim, and come now to the seventh group of claims. In paragraph 42A it is said that TTW owed a duty of care to Wynton Stone to perform its work with due care. Then it is said that, if Wynton Stone is liable to any other party, then TTW will have breached these duties. No loss is alleged and no relief is sought.

57 Paragraph 42B alleges foreseeability in TTW of loss, not only to Wynton Stone, but also to Barwon. This, then, is the basis for apportionment against TTW in the case of the Barwon claim. This may, therefore, be seen as an extension of the first claims mentioned in paragraph [55] above.

58 Finally, in paragraph 44, Wynton Stone seeks contribution against "any other party" where loss has been suffered by Barwon, Aquatec, Minson Nacap and/or Montgomery Watson. This claim is nowhere pleaded out. I was informed by counsel in final address that in this claim, too, Wynton Stone was content to rely upon the issues raised in the other pleadings.

The Barrett Fuller Claims

59 Barrett Fuller, the geotechnical engineer, seeks apportionment from the other defendants to Barwon's counterclaim pursuant to the *Building Act* s. 131. In its statement of claim[58] against those parties it pleads that Aquatec owed a duty of care to Barwon[59] and that it breached that duty.[60] In short form, it alleges that all of Minson Nacap, Montgomery Watson, Wynton Stone and TTW also owed Barwon a duty of care and that they breached those duties. It then seeks an apportionment of any damages for which it may be liable to Barwon pursuant to s. 131.[61] It then alleges that there should be a similar apportionment in case it is liable in damages to Minson Nacap[62] or to Wynton Stone[63].

60 The defences to this statement of claim join issue but, in addition, Montgomery

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58 Further amended statement of claim dated 12 December 2003.
59 Paragraphs 4 and 5.
60 Paragraphs 6 and 7A.
61 Paragraph 9.
62 Paragraph 10.
63 Paragraph 11.

Watson alleges[64] that, if it breached any duty to Barwon, Aquatec or Minson Nacap, then the loss suffered by such party was caused or contributed to by the negligence of Barrett Fuller.[65] It is not altogether clear what this plea is directed to, given that the allegations against Montgomery Watson are part of the Barrett Fuller s. 131 claim. There are also in this pleading suggestions that Barrett Fuller seeks contribution from Aquatec in respect of its liability to Barwon[66] but no such relief is sought in the prayer for relief.

The TTW Claims

61 By its statement of claim[67] TTW seeks against all of its co-defendants to counterclaim, contribution pursuant to the *Wrongs Act* s. 23B and apportionment pursuant to the *Building Act* s. 131. It also seeks other relief.

62 The s. 131 claims of TTW share the complications of those made by its co-defendants to the Barwon counterclaim. They presuppose that TTW is jointly or severally liable for damages in favour of Barwon, Minson Nacap or Montgomery Watson. TTW seeks an apportionment of its liability to Barwon from Aquatec[68], Minson Nacap[69], Montgomery Watson[70], Wynton Stone[71], Barrett Fuller[72] and Fisher Stewart[73], an apportionment of its liability to Minson Nacap from Montgomery Watson[74], Wynton Stone[75], Barrett Fuller[76] and Fisher Stewart[77] and an apportionment of its liability to Montgomery Watson from Aquatec[78], Minson Nacap[79], Wynton Stone[80], Barrett

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64 Defence 17 February 2004.
65 Paragraph 8B.
66 Paragraph 2E, 7.
67 Amended statement of claim filed 14 November 2005.
68 Paragraph 33.
69 Paragraph 34.
70 Paragraph 35(a).
71 Paragraph 32(a).
72 Paragraph 36(a).
73 Paragraph 37(a).
74 Paragraph 35(b).
75 Paragraph 32(b).
76 Paragraph 36(b).
77 Paragraph 37(b).
78 Paragraph 33(b).
79 Paragraph 34(b).
80 Paragraph 32(c).

Fuller[81] and Fisher Stewart[82]. No apportionment is sought in respect of any claim made by Minson Nacap against Montgomery Watson.

63 Its claim for contribution under the *Wrongs Act* also presupposes liability in TTW in favour of Barwon and Minson Nacap, none of which is included in any pleading of those parties, and in favour of Montgomery Watson. As with the apportionment claims, contribution is not sought in each case against all co-defendants to counterclaim. In the case of the Barwon claim, contribution is sought from Aquatec, Minson Nacap, Montgomery Watson, Wynton Stone, Barrett Fuller and Fisher Stewart; in the case of the Minson Nacap claim, contribution is sought against Montgomery Watson, Wynton Stone, Barrett Fuller and Fisher Stewart; and, in the case of the Montgomery Watson claim, contribution is sought from Aquatec, Minson Nacap, Wynton Stone, Barrett Fuller and Fisher Stewart.

64 Against Wynton Stone, TTW seeks further relief[83] under a deed of indemnity executed in early May 1997 at the time of the deed of novation. It is alleged that, by reason of its terms, Wynton Stone is obliged to indemnify TTW against all claims against it including its cost of resisting those claims.[84] It was agreed that the quantification of those legal costs could not be undertaken at this trial. They must await a later day.

65 Further claims by TTW are made against Barrett Fuller for breach of contract and negligence. It is said that, following a slip in the embankment at Apollo Bay in May 1997 and another slip in July 1997, TTW retained Barrett Fuller to provide advice and that the advice given was in breach of its contractual obligations.[85] As a consequence of which, TTW suffered loss and damage.[86] The same matters are alleged to constitute a breach of a tortious duty of care.[87] In a separate notice,[88] TTW seeks

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81 Paragraph 36(c).
82 Paragraph 37(c).
83 Paragraph 24-31.
84 Paragraph 31.
85 Paragraphs 40Z, 40ZA.
86 Paragraph 40ZB.
87 Paragraph 40ZE.
88 Notice of contribution filed 27 May 2004.

contribution in general terms against all of its co-defendants to counterclaim.

66 TTW has also joined its former employee, Mr Sloggett, as a third party. In its third party statement of claim[89] it seeks relief against him and Wynton Stone under the terms of an indemnity which, it is said, he, together with Wynton Stone, gave in May 1997. Mr Sloggett in his defence[90] joins issue and relies on s. 66 of the *Insurance Contracts Act* 1984.[91]

Quantum of Damages

67 No order for a separate trial as to the quantum of damages was made and in the case of the claims by Barwon against Aquatec, that by Aquatec and that by Minson Nacap against Montgomery Watson against Minson Nacap, evidence and argument as to those matters was led. It was, however, generally accepted that quantum otherwise should stand over for the further argument and in some cases for further evidence. This was because the complexity of the liability issues meant that there was a very great number of possible scenarios for the assessment of damages. I will follow that course.

THE EXPERT EVIDENCE

68 It is convenient that I record at this stage a peculiarity of some of the evidence adduced from the experts. These witnesses were, without exception, highly qualified persons in the fields of structural and geotechnical engineering. Their opinions upon matters within their disciplines were of great assistance. In this case, where there was an issue as to the scope of work entrusted to many of the parties, the experts were often asked, without objection, questions which were directed to this issue which, for the most part, was a matter of evaluating the evidence of communications passing between those involved in the project. Accepting that the experts could properly give evidence of the practices of their professions, I have not acted upon their observations and understanding of matters which are essentially

89 Endorsed on third party notice dated 3 October 2003.
90 Amended defence dated 28 May 2004.
91 Paragraph 22.

issues for the Court.

69 Following the failure of the tanks in late 1997 and early 1998 and the commencement of this litigation, all of the parties engaged expert consultants to advise them as to structural and geotechnical aspects of the failure. On 15 and 16 February 2005 in accordance with the direction of Osborn J made on 30 September 2004 the experts met in a conclave chaired by an engineer, Geoffrey Markham. They produced a joint report setting out the points upon which they were in agreement and this was exhibit 71. Those attending the conclave were the following structural engineers, William Charles Thomas, Leonard Kelman Stevens, Colin Fraser Duffield, Brendan Joseph Corcoran, James Gordon Forbes and Arthur William Maltby. The geotechnical engineers were Anthony Bruce Phillips, Ian William Johnston, Max Ervin, Brian Charles Chandler, Andrew Francis Shirley and Gary Robert Mostyn. Notwithstanding that the Markham report records that on most, if not all, of the technical issues with which I am concerned, those participating in the conclave were in agreement, all of these experts and others also gave evidence at the trial. In addition, evidence was called from John Phillip Piper, a geotechnical engineer whose firm was retained by Barwon in 1998 to investigate the failures and to make recommendations with respect to remediation.

70 It should be noted that most of these consultants were retained after the litigation was commenced and at a time when the tanks had been rectified. Only Mr Piper and Mr Ervin of the geotechnical engineers actually inspected the tanks at the time of failure. Of the structural engineers only Professor Stevens, Mr Duffield and Mr Corcoran had the advantage of an inspection of the tanks in their failed condition.[92]

71 At each site the layout of the various tanks comprising the sewerage treatment plant was similar. There was, at each site, a series of tanks set in the ground of which the largest were the aerator tanks of which there were two placed side-by-side. These aerator tanks were separated by an earthen bank or berm about 3m wide at the top. The tanks were trapezoidal in section: the walls along the length of each tank

92 Structural response to Q. 5.

sloped away from the base at an angle of 45 degrees. Each of the tanks was very substantial: their overall dimensions were, at Lorne, 66.5m long, and 17.7m wide with a 10m wide floor at the base and inclined slabs 3.35m high; and at Apollo Bay 51.5m long, and 14.9m wide at the top with a 7m wide floor at the base and sloping slabs 3.45m and 4.45m high. Each of them was set, or substantially set, below natural ground level and lined with reinforced concrete 125 mm thick. At each site, the natural ground was sloping so that the central berm and the downhill embankment had to be built up with compacted fill.

72 Although there was no unanimity among the experts upon this, I accept the evidence that the concrete wall slabs of these tanks were, for structural purposes, little more than a liner. They provided no significant support for the earthen embankments and, in fact, depended upon the embankments for support.[93] The stability of these embankments depended upon their own mass, configuration and composition. The embankments, therefore, had to be designed and constructed to stand for their design life, that is, 80 years. During the times when one or both of the tanks were empty, the embankments had to be able to resist lateral pressure from the soil without the support afforded to them by the load of the fluid within the tank. So too, the concrete floor performed no real structural function.[94] When the tanks were full this meant that the ground underneath the slabs had to have sufficient strength to support the weight of the fluid in the tank. Where one or both of them was empty, the design had to cater for upward pressures which might be caused by any hydrostatic pressure or from soil heave.

73 The tanks at both sites failed. Again, there was no controversy about this or about its cause.

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93 Geotechnical response to Q. 2(a).

94 Geotechnical response to Q. 2(a).

APOLLO BAY

74 At Apollo Bay in early October 1997, Christopher Davis, the Minson Nacap project manager, observed "some longitudinal cracks (along tank line) developing centre of the base slabs (3 No.) SW end of the North aeration tank". These three slabs in the weeks that followed suffered more cracking and bowing and a similar occurrence occurred in the south tank. Mr Davis reported this to Mr Sloggett by fax on 12 November 1997. The failures at this location were described by the structural experts in the conclave report as follows:

> "• Cracking, water infiltration and uplifting of floor slabs at western end of north aeration tank.
>
> • Minor cracking and infiltration to floor slabs at western end of southern aeration tank.
>
> • Opening of joints in the vertical walls to the aeration tanks and the balance tanks.
>
> • Tilting of the retaining wall to the earth fill between the aeration tanks and the balance tank.
>
> • Vertical cracks and misalignment in the vertical section of the side walls to the aeration tank.[95] "

75 The opinion of the experts, which I accept, was that the failure of the tanks at Apollo Bay was caused by external hydrostatic pressure from groundwater beneath the floor slabs.[96]

76 The opinion of Mr Piper, which was reflected in the evidence of most of the geotechnical experts, was that the most likely source of this groundwater was a confined aquifer running generally down the hill in a south-easterly direction with a phreatic head higher than the base slabs of the tank.

77 Some of the experts were of opinion that the floor slabs were also subject to heave by reason of the expansion of the cohesive clays underlying them which had come into contact with the groundwater, but it was accepted by them that this was a less significant factor.

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95 Structural response to Q. 5(a).

96 Structural and geotechnical response to Q. 2.

78 The designer of the tanks had sought to address these pressures in two ways. First, by providing a cut-off drain on the north or uphill side of the tanks to remove the groundwater from the vicinity of the tanks and, second, by the provision of two pressure relief valves on the floor of each tank. These were to relieve the pressure by permitting the groundwater to run into the empty tank when the pressure became dangerously high.

79 The opinion of the geotechnical experts was that, while the cut-off drain was effective to reduce the level of the phreatic surface of the groundwater in the vicinity of the drain, it was insufficient to protect the structure from an upward flow of groundwater.

80 The opinion of the majority was also that the pressure relief valves were of little benefit since there was no provision for an adequate drainage path for the water under pressure to arrive at the valves.

81 The experts accepted that the design of the tanks at both sites failed to make adequate provision for the hydrostatic pressures present in the soil by either providing relief of the probable pressure or by providing sufficient structural strength to resist them.[97] Accordingly, each of the parties with a contractual responsibility for design, Aquatec, Minson Nacap and Montgomery Watson, accepted that they were in breach of contract.

82 The structural engineers also noted that, in some areas, the thickness of the concrete was less than specified and that there appeared to have been some malfunction in the jointing between the slabs which was responsible for some leakage. They observed also that the reinforcement in some locations appeared to have been misplaced and that there was some misalignment in the walls.[98] Neither they nor the geotechnical experts, however, considered that any of these construction matters was a probable cause of the failure.[99]

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97 Geotechnical response to Q. 6.
98 Structural response to Q. 8.
99 Geotechnical and structural response to Q. 9.

83 The geotechnical experts were also critical of the earthworks. They were of opinion that it was unlikely that they complied with the specification[100] but they did not think that this was a cause of the tank failure.[101] In his report, Professor Stevens accepts the analysis of the others which led to the conclusion of the long-term stability of the embankments was uncertain but that this was likely to be a problem only where the tanks, or one of them, was empty for a period of time. While this was a matter of concern, and one which showed that the designer had failed to satisfy the accepted factor of safety, it was not suggested that this was a cause of the observed failure.

LORNE

84 The failure of the Lorne tanks was also due to external water pressure. Peter Meyer, the superintendent's representative on site, reported on 29 January 1998 that the tanks which had been filled since 19 December 1997 were leaking. On 18 February 1998, after the northern tank had been emptied, Mr Meyer observed cracking in the concrete walls and floor. This cracking was in the central embankment with a single crack on the northern wall. Water was also seen to be seeping through the joints. This cracking became worse over the next week or so and water was seen to weep through the cracks.

85 The opinion of the experts was that this failure was due to the presence of water in the embankments. The soil at this site was more sandy than that at Apollo Bay, but there was clay present. The experts all agreed that this water applied hydrostatic pressure to the sloping embankments which comprised part of the tanks. As at Apollo Bay, the design of the tanks and of the embankments did not cater for these pressures.[102] The source of the water was, at this site, not natural groundwater but, rather, that which came from the fluid which had seeped from the tanks themselves, probably the southern tank. This seepage permeated the berm and, when the northern tank was empty, the resultant pressure to the embankment of that tank

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100 Geotechnical response to Q. 8(a).
101 Geotechnical response to Q. 9.
102 Geotechnical response to Q. 7(b).

could not be resisted. The stability analysis of the embankments conducted by Mr Piper showed an insufficient factor of safety when one tank was full and the other empty. Accordingly, the parties with design responsibility, Aquatec, Minson Nacap and Montgomery Watson, again accepted that they were in breach of contract.

THE CONTRACT CLAIMS

86 As I have mentioned, the claims in contract made by the contracting parties, at least down to Montgomery Watson, were not challenged, except as to quantum.

UNDER THE BARWON-AQUATEC HEAD CONTRACT

87 The claims between Barwon and Aquatec have been subsequently compromised: Aquatec has accepted liability in the sum of $2,924,557. In summary, the sum is made up as follows:

	Item	Settlement
1.	Cost of Remedial Civil Works	3,588,696
2.	Cost of Completion (Mech/Elec)	
	2.1 Professional Costs	
	2.2 Other	
	2.3 Administration	
	2.4 Non-compliance with performance specifications	820,000
3.	Interest on negative certificates 13, 14 and 15	
4.	Less balance for Head Contract work unpaid	(1,614,971)
5.	Less Performance Bond encashed	(321,375)
		2,924,557

Insofar as they are concerned with this settlement, the other defendants to counterclaim accept item 1 as representing a fair assessment of Barwon's entitlement and Aquatec's liability under the head contract for the cost of remedying or completing the civil works.

88 When pressed as to the nature of this settlement and the consent judgment to be given, whether it represented an award of damages or an award of a liquidated sum, I was told only that the parties had agreed that this sum should be paid. I was told that, when I deliver my reasons for judgment in this matter, Barwon would seek

judgment in the agreed sum plus statutory interest which is presently $1,636,466 to 14 December 2005. I was not told whether an order for costs would be sought by consent or otherwise.

89 I record at this point, for it was raised later in the context of the s 131 claims, that, insofar as this statutory interest is sought under s. 60 of the *Supreme Court Act* 1986, it is correctly described as damages in the nature of interest.[103] This component of the judgment which may be entered against Aquatec is, therefore, technically a judgment in damages.

90 Barwon's claims against Aquatec, including that for an award of damages for breach of contract, were not pressed further. It seeks no relief from any other party. In particular, it now seeks no apportionment pursuant to s. 131.

UNDER THE AQUATEC - MINSON NACAP SUB-CONTRACT

91 As I have mentioned, Minson Nacap accepts that it is in breach of its design obligations under its sub-contract with Aquatec.[104] But not all of the sums agreed between Barwon and Aquatec concern the defects to the civil works which are the subject of this sub-contract. Furthermore, Aquatec alleges loss and damage which falls outside the settlement with Barwon. The quantum of damages sought by Aquatec against Minson Nacap is set out below:

1.	Aquatec liability for Barwon's cost of remedial civil works.	3,588,696
2.	Interest paid by Aquatec on negative certificates No 13, 14 and 15	452,207
3.	Aquatec consequential losses	450,000
4.	Uncompleted civil works	100,000
5.	Statutory interest payable by Aquatec to Barwon	1,636,466
		6,227,369
6.	Statutory interest payable by Minson Nacap to Aquatec (to 14/12/05)	994,401
		7,221,770

103 Compare *Supreme Court Act* 1986 s 58.

104 This acceptance was no more specific than this.

92 Minson Nacap now accepts items 1, 3 and 4 and the quantum of item 2. The principal point of issue here is the causal relationship between items 2, 5 and 6 and the breaches of contract which are now conceded.

93 Aquatec says in support of items 2 and 5 that its obligation to pay interest on the certificates and on the amount due to Barwon arose only because of the failure of the tanks and its aftermath. It will be recalled that the three certificates were negative certificates because of the deductions made to the value of work completed on account of the defects. It might be said, too, that if Aquatec had paid those certificates, as it was obliged to under the head contract, these payments would have been recoverable from Minson Nacap for its breaches. Minson Nacap's response is simply that Aquatec should have made the payments due under the certificates. Why, it asks, should it bear Aquatec's costs incurred by reason of Aquatec's own breach of contract? To my mind, this is a powerful argument. The fact that it suited Aquatec not to make payments due under its head contract is not a consequence of the breach by Minson Nacap. Item 2 is disallowed.

94 The position with respect to the statutory interest on the amount of the agreed judgment stands in a different position. Unlike its contractual right to payment of the sums certified, Barwon's entitlement to payment of the $2,924,557 depends upon the agreement which has only recently been achieved. The amount of interest on judgment therefore is a loss to Aquatec which is a consequence of the breaches of the sub-contract by Minson Nacap. I will allow item 5.

95 Item 6 is for statutory interest on the amount of the proposed judgment pursuant to the *Supreme Court Act* 1986. Nothing was put against this item in principle. I will hear counsel further as to it and as to quantum.

96 As between Aquatec and Minson Nacap, there is also a seventh item. Aquatec has failed to pay to Minson Nacap $1,015,304 being the amount unpaid for its work under the sub-contract. The amount is agreed as is the obligation in Aquatec to pay or to give credit for it. Statutory interest on this sum is said to be $673,866 as at 15

December 2005. The claim of Minson Nacap to this sum was included in the stayed proceeding No. 5083 of 2000.

97 Aquatec's other claims against Minson Nacap were not pressed. It did not press its claims for damages against any other party. Nor did Minson Nacap advance any submission in support of a contention that its liability to Aquatec should be the subject of apportionment pursuant to s. 131, reserving its position if it should eventuate that apportionment was required. It did, however, maintain its *Wrongs Act* contribution claims.

98 The consequence of this is that I am satisfied that Aquatec is entitled to an award of damages against Minson Nacap in the sum of $6,769,563 (subject to confirmation of the accuracy of the quantum of items 5 and 6). Aquatec is also entitled to damages by way of interest from the date of commencement of this proceeding. I am also satisfied that Minson Nacap is entitled to judgment against Aquatec in the sum of $1,015,304 plus damages by way of interest.

99 For the purpose of the s. 131 claims, there remains the question whether these liabilities should be set off so that the judgment should be awarded to Aquatec for the net figure or whether two judgments should be awarded and one of them apportioned pursuant to s. 131. There was little said about this in final submissions; the affected parties being content to stand this matter over until my decision on the fundamental issues has been given. I will adopt this course.

UNDER THE MINSON NACAP - MONTGOMERY WATSON DESIGN SERVICES AGREEMENT

100 At the commencement of this trial, counsel for Montgomery Watson announced that their client accepted that it was in breach of its design obligations under the design services agreement with Minson Nacap.[105] In final address counsel for Montgomery Watson clarified this by accepting that, in its design of the tanks, their client had failed to comply with the requirements of AS 3735-1991, AS 3600-1988 and BS 8007-1987, so that it was in breach of cl. C 1.12 of the specification.[106] On day 28 Minson

105 The concession was no more specific than this.

106 A third amended statement of claim filed 25 November 2005 paragraph 9(e).

Nacap responded to this by amending its pleading against Montgomery Watson by deleting all claims other than its claims against Montgomery Watson for breach of contract. The question which then remained was that of assessing the resultant damages.

101 As might be supposed, Minson Nacap sought to pass to Montgomery Watson all of the damages which it is required to pay to Aquatec. These total $6,327,369. Damages of Minson Nacap sought against Montgomery Watson are the following:

1.	Its liability to pay Aquatec the cost of Barwon's remedial civil works	$3,588,696
2.	Its liability to pay to Aquatec interest on negative certificates 13, 14 and 15	$452,207
3.	Its liability to pay to Aquatec its consequential losses	$450,000
4.	Its liability to pay to Aquatec statutory interest which Aquatec is to pay to Barwon	$1,636,466
5.	Its liability to pay to Aquatec statutory interest on the total amount of the judgment which is to be given against Minson Nacap in favour of Aquatec (to 14 December 2005)	$994,401
6.	The amount which Aquatec has not paid to Minson Nacap under its sub-contract if this be not recoverable from Aquatec	$1,015,304
7.	Statutory interest on item 6	$673,546
8.	Minson Nacap's own cost of investigating the failures	$100,000
9.	Minson Nacap's legal costs of defending the Aquatec claim on an indemnity basis	

Montgomery Watson accepts items 1 and 8. As to the remainder, it contends that the items do not flow from the breaches and their quantum is not admitted. Montgomery Watson also relies upon a term in its design services agreement which restricts its liability to the direct costs of its breach.

102 This provision is in the following terms, so far as are here relevant. In this agreement Montgomery Watson is defined as the consultant and Minson Nacap as the client.

> "5.1 **Direct and Indirect Loss**
>
> The liability of the Consultant..., howsoever arising, whether out of the performance or non-performance of the Services, whether under the law of contract, tort or otherwise, shall be limited to the cost of rectifying the works comprising the Project and any direct losses or costs suffered by the Client under the contract in relation to the Services provided…
>
> The Consultant… shall be liable to the Client for any direct losses or costs suffered by the Client in relation to the Services provided."

103 The expression "direct loss" is one which is frequently encountered in commercial documents. It is evidently inserted to limit the damages which the defaulting party is exposed to by reason of its breach. In every case, the starting point must be a conclusion that the loss in question has been caused by the default and is sufficiently proximate to the default to be the subject of an award of compensation, as a matter of law. The limitation then operates to remove from the award those losses which are not direct. Having looked at the cases to which I have been referred, I respectfully adopt the formulation of Ryan J in *GEC Alsthom Australia Ltd v City of Sunshine*[107] that the enquiry is whether the losses or, in this case, the costs, flow naturally from the default. This enquiry must have regard, not only to the terms of the document as a whole, but also to the work to be performed and the nature of the default. In short, it approximates the test which is found in the first limb of *Hadley v Baxendale*.[108]

104 The design consultancy agreement is an agreement whereby Montgomery Watson undertook to perform design and associated work for the project as part of a team, which team, included Aquatec and Minson Nacap. Its contract, however, was with the construction contractor, Minson Nacap, which is the client for the purposes of the agreement. The agreement, in cl 2, imposes performance obligations on Montgomery Watson. To this is added, by the second paragraph of cl. 5.1, a liability

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107 Unreported, Federal Court 20 February 1996, BC 9600288 at p 54.

108 See *Robertson Group (Constructions) Ltd v Amey Miller (Edinburgh) Joint Venture* [2005] BLR 491 at 493 [7]-[8], per Lord Drummond Young.

in Montgomery Watson to Minson Nacap for "any direct costs or losses" suffered by Minson Nacap in relation to the services provided. The limitation presently under consideration, which is found in the first paragraph of this clause, uses similar terminology. The liability of Montgomery Watson is limited to two heads of loss and damage suffered by Minson Nacap: the cost of rectification and any direct losses or costs suffered by Minson Nacap under the contract in relation to the services provided. The use of the words "in relation to" in both paragraphs indicates that the connection between the losses and the costs and the services and the defaults is not to be construed narrowly. The losses and costs must, nonetheless, flow directly from the default.

105 In this case, the default of Montgomery Watson as conceded, is in non-specific terms. I must therefore ask myself in respect of each of the suggested heads of damage, other than rectification cost, whether it flowed directly from this default.

106 Item 2, the interest on negative certificates number 13, 14 and 15, must fail, if only because I have not found Minson Nacap liable to meet this Aquatec expense. At the present level, the item must be disallowed for the further reason that it is too remote from the breaches of contract by Montgomery Watson to satisfy the causation requirement for such a claim. It satisfies neither of the limbs of *Hadley v Baxendale*. I find, too, that it is not a direct loss or cost of Minson Nacap within the meaning of cl. 5.1 of the design services agreement because its occurrence depended upon the decision of Aquatec not to comply with its contractual obligation to pay the sums certified under the head contract.

107 Item 3 is the amount of $450,000 which Minson Nacap has agreed to pay to Aquatec as its loss consequent on the failures and upon the decision of Barwon to take the civil works out of the head contract. Montgomery Watson accepts that Aquatec incurred these costs as a consequence of having to maintain a presence on site while the remediation work was decided upon and carried out. Counsel for Montgomery Watson then said that their client accepted this item, provided it was a direct loss or cost. I find that it is a loss of Minson Nacap flowing directly from the Montgomery

Watson default. As a consequence of this default, Minson Nacap was exposed under the sub-contract to meet these expenses of Aquatec.

108 Item 4 concerns Aquatec's interest obligation in favour of Barwon for which Minson Nacap must indemnify Aquatec. I have concluded that Aquatec is entitled to include this item in its damages claim against Minson Nacap. For the same reason, I would include it in the damages payable by Montgomery Watson. It is a direct loss in the hands of Minson Nacap.

109 Item 5 represents the statutory interest which Minson Nacap will be required to pay to Aquatec. This interest represents compensation to Aquatec for having to stand out of the money to which it is now entitled. In part, this will pass to Barwon for it, too, has a claim for statutory interest upon the settlement sum. It may be said that this compensation for late payment does not flow directly from the Montgomery Watson default. Nevertheless, in the context of this case, where every party until very recently was denying liability, this expense is properly to be seen as flowing directly from the default.

110 Items 6 and 7 may be shortly dealt with. Whether Aquatec has lawfully or otherwise withheld money otherwise due under its sub-contract with Minson Nacap has nothing to do with Montgomery Watson. As between those parties, I have determined that the two items[109] are to be paid or brought to credit by Aquatec. It is therefore not a loss suffered by Minson Nacap.

111 Item 9 represents the legal costs of Minson Nacap, incurred and to be incurred in defending the Aquatec claim. It raises a very interesting question about which little was said at trial. Counsel for Minson Nacap invited me to consider it either as a component of the loss and damage which their client incurred in defending a claim which was brought as a result of the breach of contract by Montgomery Watson. Alternatively, the costs might be dealt with as costs incurred in the third party proceeding. They then suggested that this item should stand over to be dealt with

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109 The subject of determination of the amount of interest.

when judgment on the principal issues is given. The difficulty with the course is that, on the first basis upon which it is brought, it is part of the matters for trial, that is, the quantum of the Minson Nacap claims. I will therefore determine this issue.

112 I reject the item as part of the loss and damage for which Minson Nacap is to receive damages for breach of contract. It is reasonable to suppose that, at the time of the contract, Montgomery Watson and Minson Nacap should be taken to have envisaged that, if the Montgomery Watson design work was defective, this might lead to a claim by Barwon upon Aquatec and one by Aquatec upon one Minson Nacap. The first difficulty is that of assuming that legal costs would be incurred in the defence of the latter claims, given the design and construct responsibility of Minson Nacap. Indeed, a remarkable feature of this litigation is the fact that over some five years, both Aquatec and Minson Nacap have resisted the claims made against them. I can well understand that the amount of the claim might be a matter of dispute, but it is difficult to see the basis upon which either Aquatec or Minson Nacap might have expected to have avoided a finding that each was in breach of its contract with the party immediately above it in the contractual chain. In these circumstances, I cannot see that the legal costs of Minson Nacap incurred in defending this claim, or at least those incurred in disputing liability, could be taken as flowing from the breach. I do not stay to speculate why these costs were incurred. It is sufficient that I conclude that they do not fall within the limbs of *Hadley v Baxendale*. For similar reasons, they are not direct losses or costs suffered by Minson Nacap in relation to the services provided. These costs which are to be recovered from Montgomery Watson, must be as part of the costs order which I am not now required to consider.

113 I conclude, therefore, that Minson Nacap is entitled to an award of damage in the sum of $4,186,312, subject to confirmation of the accuracy of the quantum of Items 4 and 5. As to statutory interest on this sum, I will stand this over, too, for further argument if there be any issue as to it.

UNDER THE MONTGOMERY WATSON - WYNTON STONE SUB-CONSULTANCY AGREEMENT

114 It is at this point that the settling impetus runs out. So far as contractual claims are concerned, there can be no doubt that there existed an agreement between Montgomery Watson and Wynton Stone whereby Wynton Stone was to provide design services for the structural aspects of the tanks. These services were provided under the agreement which was contained in the 4 April 1997 agreement between those parties. There is no doubt, too, that Wynton Stone started work before this agreement was entered into. Whether this early work was performed under some earlier retainer or retrospectively under the April agreement is of no consequence: Wynton Stone accepts in either event an obligation to perform its work with due care. The area of controversy here is as to the scope of geotechnical work which Wynton Stone undertook to perform and, in particular, whether this included any and, if so, what geotechnical work and the design of the sloping wall embankments to the aerator tanks for each plant.

The scope of geotechnical works

115 As I turn to the evidence which was led of the events attending the making of the Montgomery Watson - Wynton Stone sub-consultancy agreement, I bear in mind that these events occurred in late 1996 and early 1997. The passage of the intervening nine years, to say nothing of the input of the work preparatory to the trial, must have had an impact upon the reliability of the recollection of the witnesses, especially as to detail. It is apparent that they rely heavily upon the contemporaneous records, including correspondence and notes. I make no complaint about this, accepting as I do that these contemporaneous records are likely to be reliable. I note in this regard that few diary notes of Geoffrey Kenneth Searle, the principal of Barrett Fuller, and of Mr Sloggett or memoranda prepared by them, found their way into evidence. David John Angus, the Montgomery Watson engineer responsible for the project, on the other hand, was described as an assiduous note taker and many of his notes were tendered.

116 Wynton Stone was in 1997 a company of which Mr Sloggett and his wife were directors. For practical purposes it was the corporate vehicle under which Mr Sloggett had, since 1992, conducted his practice of structural engineer.

117 Prior to the submission of the Aquatec tender to Barwon, it was intended that Aquatec, Minson Nacap and Montgomery Watson would submit a tender as a consortium. Broadly speaking, Aquatec would be responsible for electrical and mechanical aspects of the project and the commissioning of the plant, Minson Nacap for construction and Montgomery Watson for design. For reasons which are of no relevance, it was later decided that Aquatec would compete as a sole tenderer, with the other venturers as sub-contractors.

118 When Barwon had determined upon a short list of three preferred tenderers, including Aquatec, the tender documents were distributed to them on 18 September 1996. These included the specifications which themselves included the following

> "G.4.3 Geotechnical
>
> > The tenderer shall carry out his own evaluation of the geotechnical information for each of the treatment plant sites, included in Volume 1 as Appendix E.
> >
> > This information shall not form part of the Contract Documents and the Tenderer is solely responsible for the interpretation of the information and any conclusions drawn therefrom.
> >
> > If the Tenderer deems it necessary to obtain additional geotechnical information for design purposes, it shall arrange for such investigations at it's own cost."

119 The draft form of contract provided to tenderers included the general conditions AS4300-1995 which contained, as cl 12, a latent condition provision in fairly common terms: the contractor was entitled to claim extra payment in limited circumstances where unexpected ground conditions were encountered.

120 The geotechnical information provided to the tenderers in Appendix E included two reports prepared by MPA Williams & Associates, Consulting Geotechnical Engineers, prepared in July 1996. One concerned the site for the plant at Apollo Bay

and the other the site at Lorne. I mention, too, that MPA Williams had, at the behest of Barwon, prepared an earlier report of geotechnical conditions at Apollo Bay in 1995. This was apparently prepared as part of a contested town planning application with respect to the proposed sewerage treatment plant in that township. This 1995 report had not been provided by Barwon to Fisher Stewart, its engineering consultant, when it was compiling the tender documentation and was not provided to tenderers at this time or, indeed, at any time prior to 1998. The content of these MPA Williams reports assumed some importance at trial.

121 The two 1996 MPA Williams reports were expressed to have been prepared as an aid to tenderers but, in each case, the report warns that "further geotechnical investigation will be required before designs can be finalised". At Apollo Bay the field work underlying the report comprised four test pits excavated on 26 June 1996 to depths of between 3.8m and 3.9m, to levels about the depth of the base of the proposed tanks, as well as four penetrometer tests. The pits were dug some distance from the actual site of the tanks. The weather at the time was changeable with sunny and rainy periods and there were signs that, after wet weather, the surface would be very wet and untrafficable. The test pits logs, nevertheless, report no free ground water. The soil was predominately clay but the report noted fissures and slickensides with moisture on the surface and the logs showed that these were found at about 3m depth. The presence of fissures in the clay would mean to a geotechnical engineer that the normal relative impermeability of this type of soil would be affected by the presence of fissures or gaps in the material through which water may pass and that the soil had a propensity to slump. The expression "slickenside" refers to a condition of planar or sub-planar weakness in the clay soil which may have the consequence that layers may move relative to other layers.

122 The 1996 MPA Williams report of the Lorne site was based on field work carried out on 27 June 1996. Eight test pits were excavated to depths of between 0.9m and 3.0m, that is above the level of the base, of the proposed tanks. These test pits were close to the site of the proposed plant and they revealed no groundwater at depth. The

report, however, noted the presence of extensive areas of fill, including a back-filled dam.

123 A site inspection for the tenderers was arranged for Monday 30 September 1996. At this inspection those involved in the Aquatec tender were Josef Cesca of Aquatec, Paul Ronaldo Varrasso, the Minson Nacap Project Manager and Peter Charles Everist, the Fisher Stewart project manager and the superintendent under the head contract. There was no representative of any of the design team present. I do not accept the evidence of Mr Everist that Mr Angus attended this inspection. Brief minutes of this inspection were in evidence.

124 I was told that this September inspection at Apollo Bay took place on a very wet and rainy day and that rain is a frequent occurrence in that locality; it is wet nine months of the year. The site was sloping down to a creek where there were signs that the ground surface was or had been wet. There were rushes growing near the creek and there were signs of hoof marks from stock which had been grazing on the land. The Lorne site, on the other hand, was at the top of a hill and appeared to be dry.

125 Montgomery Watson did not have available within its Melbourne office the expertise to undertake the structural design for the project. Its State manager, Peter James Robinson, had known Mr Sloggett since 1995 when both were associated with Scroggie Consulting Engineering Pty Ltd and he suggested to Mr Angus that Mr Sloggett might undertake the structural engineering for the pre-bid design. For this purpose, he sent to Mr Sloggett on 24 October 1996 the minutes of the 30 September 1996 site visit, the two 1996 MWA Williams geotechnical reports, a page from the specifications dealing with the site constraints including cl. G.4.3,[110] location drawings and site-layout sketches. It does not appear that he gave to Mr Sloggett a copy of the Sinclair Knight Merz EES summary brochure of April 1995 which had been included in the supplementary information for tenderers in September 1996. I accept the evidence of Mr Sloggett that he did not see this last document until February 1998.

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110 Set out at para [118] above.

126 On 30 October 1996 Aquatec accepted the proposal of Montgomery Watson that it carry out the preliminary-bid design and associated work for the tender for a fee of $21,000 plus a success bonus of $10,500. In its revised proposal to Minson Nacap dated 29 October 1996 upon which this agreement was based, Montgomery Watson informed Aquatec that its staff included as structural engineer, Mr Sloggett, who was to undertake a "structural review of foundations and principal structures" and, later in the document he is shown as having responsibility for "geotechnical/structural review", and that his work would be reviewed by Mr Angus. In fact, Mr Sloggett was not a staff member of Montgomery Watson; he was the principal of Wynton Stone to whom Montgomery Watson had sub-let the pre-bid design work for water retaining structures and civil works for the sum of $700.

127 It should be noted at this stage that, as between the three venturers, Montgomery Watson's responsibilities included "Review Geo Tech survey and advise if more information is required, advise extra price if more information required". At this stage, too, the venturers envisaged that, if the bid were successful, Montgomery Watson's responsibilities would include more geotechnical work as required.

128 The sewerage treatment plants described in the tender specification called for an intermittently decanted extended aeration (IDEA) treatment process. For my present purposes, it is sufficient that this process involved the reception of the waste water or sewerage into a large aerator tank where it was subjected to treatment before passing to other tanks and ultimately being discharged into the sea. The tender specification called for a pair of aerator tanks in each plant. In section these tanks were to be rectangular with vertical reinforced concrete walls and a horizontal reinforced concrete floor. These walls and floor were fairly massive, so as to resist the forces to which they were expected to be subject. The floor was to be 500 mm thick and the walls 450 mm thick at the base and 350 mm at the top. Mr Sloggett prepared such a design which was incorporated in the Aquatec tender which was submitted on 12 November 1996. In addition, Aquatec submitted an alternative and cheaper offer incorporating a non-conforming design involving smaller tanks with

sloping walls. It was this alternative design which was ultimately adopted.

129 In his notes of a pre-bid design meeting on 29 October 1996 with Mr Sloggett and Mr Varrasso, Mr Angus records that this alternative design would involve a thin concrete lining of 100 mm with under floor drainage or pressure relief valves. His notes suggest that these valves might be adopted with a crushed rock blanket. The notes also speak of need for the design "to prevent stormwater/groundwater ingress". The recollection of Mr Angus of these matters was not much more than the notes recorded. He said that the information which I have summarised was provided to the meeting by Mr Sloggett; he, Angus, having no expertise in these or structural matters. Mr Sloggett and Mr Varrasso had no recollection of the discussion of these drainage matters. Mr Angus' notes were not distributed to either of them.

130 About the time that the tender was submitted, Mr Angus and Mr Sloggett discussed the nature of the involvement of Wynton Stone in the project if the bid be successful. By fax dated 7 November 1996 Mr Sloggett submitted a fee proposal on various bases, including the sloping wall option which was ultimately adopted, for which he proposed a fee of $16,720. In this price Mr Sloggett made no provision for site inspections during construction; this last matter was dealt with on 11 November 1996 when he confirmed an agreement with Mr Angus that Wynton Stone be paid a further $2,400 for three site visits, one at each site to inspect foundations and the third an inspection of both sites upon completion.

131 On 7 November 1996 the question of geotechnical investigation was discussed between Mr Sloggett and Mr Angus. Mr Angus's note on this conversation shows that a further $2,000 to $3,000 was to be allowed "to carry out 4-5 test pits at each site to verify profiles and soil conditions". It must have been contemplated by the two men that this cost was for the digging of the pits only, for the cost of Wynton Stone attendance was said to be included in the fee.

132 These conversations must be understood in the light of things as they then stood. Mr Sloggett had not yet visited the site. He had the documents sent to him on 24 October. He may well have learnt something of the soil from discussions with Mr Angus or Mr Varrasso, but there is no evidence of this. It is clear that Mr Sloggett and Mr Angus were concerned that there be no expansive clays on the sites, for this design assumption had been discussed at their meeting with Mr Varrasso on 29 October 1996. Mr Sloggett was concerned, too, that he might take it that the Apollo Bay site generally was stable and not prone to slips, for he qualified in this way his fee proposal of 7 November 1996.

133 In its comments on the specification included in its tender of 12 November, Aquatec sought to deal with these matters by qualifying its acceptance of cl. G.4.3 of the specification.

> "Nothing in the geotechnical information provided indicates the presence of any expansive clays at either site, so no allowances have been made to deal with these or with landslips or potential landslips. Any work required to deal with these will be extra to the contract".

134 The Aquatec conforming tender was successful and, on 17 December 1996 Barwon advised that it had determined to enter into a contract with it to carry out the works that they specified, that is, on the basis of vertical wall aerator tanks. Then followed the usual discussions between the successful tenderer and Fisher Stewart, the Barwon consultant, to refine the detail and to investigate the prospect of any cost savings.

135 On 8 January 1997, representatives from Fisher Stewart, Aquatec, Minson Nacap and Montgomery Watson attended a value engineering workshop to discuss details of the design for the tanks. Mr Sloggett was not present at this meeting. In the course of this meeting, Mr Varrasso suggested that there might be a saving to Barwon if it adopted the alternative tender proposed including the tanks with sloping walls instead of vertical sides.

136 On 10 January 1997, a further meeting took place between Mr Angus, Mr Sloggett and Mr Varrasso. A topic of discussion at this meeting was the possibility of changing the profile of the tanks so that the walls would slope at a 45 degree angle. Mr Varrasso provided a sketch of a sloping wall which had been adopted at another project with which he had been involved. Mr Sloggett's notes of this meeting record that there was discussion of underfloor drainage and the provision of a groundwater cut-off drain. He told me that, as at this date, he had not visited either site.

137 I pause at this stage to record the information regarding geotechnical aspects of the site which had then been provided to Aquatec and its sub-contractors:

- Two geotechnical reports prepared by MPA Williams, one for each site, dated July 1996.

- The observations made on 30 September 1996 when Mr Varrasso, Mr Cesca and Mr Everist inspected the Apollo Bay site and the Lorne site.

138 On 14 January 1997 Mr Sloggett visited the sites with Mr Angus and two personnel from Minson Nacap. It was a warm dry day. Three test pits were dug with a backhoe at Apollo Bay and five at Lorne. In each case Mr Sloggett and Mr Angus directed the location of the pits and Mr Sloggett recorded the soil structure which the pits disclosed. He prepared a report of his inspections and conclusions which was distributed to Mr Angus on 16 January and on-sent by Mr Angus to Minson Nacap on the same day. The three test pits at Apollo Bay were at or about the site of the proposed plant and were taken only to a depth of 1.5m. Mr Sloggett assessed the unconfined compressive strength of the clay with his pocket penetrometer as 100-150 kPa, a reading considerably less than that recorded in the MPA Williams 1996 logs. He noted that "the soils were moist with the moisture content increasing with proximity to the creek". He records his conclusions as follows:

> "1. The soils would be difficult to compact when wet, therefore construction should be undertaken in the summer months.
>
> 2. The soils will dry out rapidly, with associated cracking, therefore the cut surfaces should be covered to prevent drying.

3. Surface water should be diverted from the site using swales.

4. Sub-surface drainage systems should be provided to the basins."

139 In his file note of this inspection, Mr Sloggett sets out what appears to be an aide memoire for the tasks to be undertaken following this inspection.

> "Investigate the affect of:
>
> - allowable bearing pressure on clays being 100 KPa instead of 150 as shown in MPA Williams Report;
>
> - ground water seepage on basin performance.
>
> Revised analysis of basin slabs based upon assumed soil stiffness parameters accounting for the variability in embankment construction."

140 At Lorne the inspection involved the digging of five test pits to a depth which is not recorded. The pits were located close to those undertaken by MPA Williams in July 1996. Mr Sloggett records his concern that the presence of debris at Lorne was greater than that disclosed in the MPA Williams investigation and he recommended that much of the surface be stripped and that the excavation be investigated for sources of seepage and possible slip planes.

141 I mention all of this detail because it also demonstrates a fact which was apparent throughout Mr Sloggett's involvement with the project and which bears upon the matter presently under consideration. Although he is a structural engineer with no specialist geotechnical qualifications, he exhibited a familiarity with, and an interest in, the geotechnical aspects of this project. I reject the submission put on his behalf that his investigations of the site at this time and, indeed, over the following 12 months, were not geotechnical in nature. Leaving to one side, for the moment, the question as to whether his confidence was misplaced, it is clear that he had confidence in his ability to deal with geotechnical matters and he impressed those with whom he dealt that he had a good working familiarity with this discipline.

142 In terms of the development of the project, this geotechnical investigation of the sites on 14 January 1997 exposed unexpected difficulties with the ground which required modifications to the conforming design with a consequent increase in cost. This meant that the savings to Barwon of the changes to the sloping wall design were much reduced and, further, that more detailed site investigations were required. This was set out in the Aquatec fax to Fisher Stewart of 18 January 1997 and, on 20 January 1997, Montgomery Watson forwarded to Fisher Stewart a copy of Mr Sloggett's site inspection report. The consequence of all of this was that the sloping wall alterative became more attractive to Barwon and, on 30 January 1997, this became the contract design. But, the correspondence which followed the meeting shows a concern in Aquatec about the uncertainties about the suitability of the materials on site for use as embankment material.

143 About this time, too, on 16 January 1997, Mr Sloggett forwarded to Mr Angus preliminary sketch details for costing purposes of the proposed sloping sided tanks. The sides of the tanks at Apollo Bay were to be 125 mm thick with a base also 125 mm thick with an agricultural drain under the base close to its edge. A similar profile was adopted at Lorne except that the wall and floor slabs were to be 160 mm thick.

144 Associated with this decision, which was largely driven by the discovered soil conditions and cost, it was also agreed by the end of January that the latent ground condition clause in the head contract be deleted. Henceforth Aquatec was to be responsible for sub-surface conditions at each site. Furthermore, Aquatec accepted responsibility for the material on site for embankments and foundations. The further consequence of this was that, henceforth, Aquatec became responsible for dealing with expansive and dispersive clays. Given the allocation of responsibility between the venturers, this responsibility passed ultimately to Montgomery Watson.

145 On 31 January 1997 Mr Robinson of Montgomery Watson wrote to Minson Nacap expressing confidence in the sloping wall design but stating an inability to warrant the global stability of the site. It seems, from other evidence, that this related only to

the Lorne site, the stability of which was a matter of concern for Mr Sloggett. The upshot of this was that Barwon accepted responsibility for the global stability of that site. This was acknowledged in the Minutes of Design Meeting No. 1 of 19 February 1997 and included in the head contract under the Aquatec comments on specification clause G.4.3, dated 7 March 1997, which replaced those in the tender. In fact, Barwon arranged for a geologist, John Neilson & Associates, to investigate and report upon the global stability of the Lorne site. This report dated 18 February 1997 concluded that the risk of slope failure was low.

146 So far as Montgomery Watson was concerned, site investigation and assessment was a matter for Mr Sloggett. In January 1997 he recommended to Mr Angus that Barrett Fuller be retained to carry out the further geotechnical work as they had had experience with the construction of earth dams. Mr Angus suggested that a quote be obtained first and this was done.

147 Between the end of January 1997 and the end of March 1997 discussions continued regarding the terms of the Wynton Stone retainer. Meantime Wynton Stone continued with its design work. This correspondence culminated in a fax, stamped as a draft, sent by Montgomery Watson to Wynton Stone on 26 March 1997 which was accepted by Montgomery Watson by letter dated 3 April 1997. Accompanying this fax were four pages of the Montgomery Watson standard terms of agreement for sub-contract services which became part of the sub-consultancy agreement. This fax of 26 March is an important document for my purposes and I set it out in full, omitting formal parts.

> "**RE: LORNE AND APOLLO BAY WASTEWATER TREATMENT PLANTS**
>
> We hereby confirm acceptance of your offer for the provision of services as outlined in your fax proposal dated 7 November 1996 and confirmed in our subsequent discussions.
>
> The total fee for provision of the services and deliverables shall be $24,720.00 as follows:
>
> - Post-bid preliminary design and attendance $5,000.00

at project meetings

• Detail design and drawings including site visits on 1 January 1997[111]	$16,720.00
• Geotechnical and works construction inspections (4 no. total), including site visit on 12 February 1997	$3,000.00
	$24,720.00

The scope of services and deliverables to be provided shall be in accordance with your offer of 7 November 1996 and shall be undertaken in accordance with our Terms of Agreement for Sub-Consultant Services (copy attached).

I confirm that purchase orders have previously been issued to you for the following related works activities.

S2540 (29 October 1996) – pre-bid preliminary design	$700.00
S2574 (7 February 1997) – geotechnical investigations and reporting	$7,500.00

We look forward to working with you on this project."

Montgomery Watson order S2598 was placed on Wynton Stone for this sum of $24,720 on 3 April 1997, at a time when the detailed design by Winton Stone was already well under way. It will be noted that the starting point for this fax of 26 March is the offer contained in the Wynton Stone fax dated 7 November 1996 to which I have referred.[112]

148 Three things should be noted about this fax of 26 March 1997 for my present purposes. First is that it contains the basis for part only of the work performed or to be performed by Wynton Stone. Other work is the subject of Montgomery Watson orders S2540 and S2574. Second, the Montgomery Watson terms of agreement which are incorporated include cl 5.1 whereby Wynton Stone agreed to "indemnify and hold [Montgomery Watson] harmless[113] against all claims, costs, demands and suits

111 This date should probably be 14 January 1997.

112 See para [130] above.

113 The evident error in the original has been corrected in the quoted passage.

by third parties howsoever arising whether in respect of the services performed or[114] failed to be performed by [Wynton Stone] or otherwise". Third, the scope of the Wynton Stone work is not clearly identified. For this it is necessary to look at the dealings which led to this fax.

149 Before I examine the correspondence in some detail, I should underline two matters which were productive of confusion. First is the mention of slope stability. This expression was sometimes used to refer to the stability of the site generally; each of the sites was sloping and some fears were expressed that the plants might be jeopardised by slippage. This concern I shall refer to as global slope stability or site stability to distinguish it from a different concern: that the sloping 45 degree embankments which were to be cut in each site might themselves be subject to slippage. This I shall refer to as local slope stability. The second matter is that the figure of $8,250 appears in the correspondence in two unrelated circumstances.

150 A number of events occurred on 30 January 1997, with respect to these matters, although it was not altogether clear on the evidence what was their precise sequence. The following appears likely.

151 Acting upon the suggestion of Mr Angus, Mr Sloggett had telephoned Mr Searle of Barrett Fuller on 30 January 1997 to obtain a price for the geotechnical work. On 30 January 1997 Mr Searle submitted his price of $8,250 for:

> "re Lorne and Apollo Bay Sewerage Treatment Works - Site Investigation and Reports".

152 His price allows for four bores to 5m at Apollo Bay and four bores at Lorne of which two were to 7m and two to 2m. Allowance is made for laboratory testing and analysis and reporting in this price. There was a surprising uncertainty as to what type of investigation Barrett Fuller was to undertake for this price. Mr Sloggett, who, as on many matters, was not very specific, told me that the quotation was provided in response to a request merely for "geotechnical services". In his oral evidence he

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114 The evident error in the original has been corrected in the quoted passage.

said that this was for an investigation and analysis of local slope stability at each site. Later in cross-examination he said he had no recall of the conversation. Mr Searle said that his $8,250 quotation of 30 January was for work for the purpose of providing "recommendations on foundation parameters for the proposed embankments, assessing the suitability of material for embankment construction and providing compaction parameters for re-usable material".

153 Early on 30 January 1997, Mr Angus and Mr Sloggett had a telephone conversation of which I have Mr Angus' notes. The two men discussed slope stability at each site. Mr Sloggett is recorded as expressing confidence that there was no problem at Apollo Bay but that, at Lorne, it would be necessary to sink boreholes to determine the mudstone profile. This discussion concerned global site stability.

154 The Barrett Fuller quote of 30 January 1997 for $8,250 was then received by Mr Sloggett, for, later on that day, he spoke again with Mr Angus. Mr Angus' note of this conversation records that Mr Sloggett communicated to him the substance of the Barrett Fuller quotation of $8,250. Mr Angus then added 20% to arrive at the figure of $10,000 which would be billed to the client.

155 Mr Robinson of Montgomery Watson sent a fax dated 30 January 1997 to Stephen Andrew Fraser, the managing director of Minson Nacap, in which he confirmed Montgomery Watson's requirement that Aquatec's qualification to specification Clause G.4.3 be retained. He explained that this was because there was insufficient information available to undertake a global stability analysis and because it was likely that Barwon had formed a view upon this when the sites were selected. Mr Robinson added that, if the work was to be undertaken, this would require the appointment of geotechnical specialists at a cost of about $10,000. This letter appears to be based upon the information provided by Mr Sloggett to Mr Angus in their second conversation.

156 At this point there appears to be a misunderstanding between Mr Angus and Mr Sloggett as to what was involved in the Barrett Fuller price of $8,250. Whether the confusion stemmed from Mr Sloggett who acted as the go-between, I do not say. I accept that Mr Angus genuinely believed that the quote was for global site stability analysis and that he was in error in so believing. This error was perceived by Mr Everist in his fax to Thomas Urie Lawson, the managing director of Aquatec on 7 February 1997.

157 Finally, on the same day, 30 January, Mr Lawson sent to Mr Everist a fax in which he withdrew the tender qualification as to the suitability of the materials on site for earth works and foundations and recommended that Barwon agree to "a more wide reaching geotechnical survey" to determine global site stability. He offered as an estimate for this the price of $10,000. Again, this figure suggests that Mr Lawson shared the same misapprehension as Mr. Angus.

158 Then, on 5 February 1997, Montgomery Watson sent to Wynton Stone a fax setting out its understanding of the Wynton Stone fee proposals then totalling $38,420.00. This included $16,720.00 for detail design as set out in the fee proposal of 7 November 1996.[115] Then followed three geotechnical items.

- Geotechnical/earthworks inspections - $3,000.00
- Geotechnical investigation - $4,000.00
- Additional geotechnical investigation - $9,000.00

159 The first of these geotechnical items, which had on 11 November 1996 been agreed at $2,400[116] for three inspections, was apparently increased to four inspections to include the cost of that to take place on 12 February 1997.

160 The second item is described in the fax as being for "embankment design including $3,000 for appointment of geotechnical specialist and input by" Wynton Stone.

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115 See para [130] above.
116 See para [130] above.

161 The third item, that for $9,000, is described as being "for slope stability and analysis including $8,250 for appointment of geotechnical specialists and input by" Wynton Stone. Mr Angus included in his fax this sum of $8,250 being the figure included in the Barrett Fuller quotation of 30 January 1996 which was discussed between him and Mr Sloggett on that day.

162 The components of the second and third geotechnical items, as Mr Angus understood the position at the time, were as follows:

- $4,000, being the cost of geotechnical investigations by undertaking four to five test pits at each site to verify profiles and soil conditions. This had been estimated by Mr Sloggett on 7 November 1996 as likely to cost between $2,000 and $3,000.

- $9,000, being the cost of undertaking overall site stability analysis at both sites in accordance with the Barrett Fuller quotation of 30 January 1996 with a $750 mark-up. This is how Mr Robinson described the work in his letters to Minson Nacap of 30 January 1997 and 3 February 1997.

163 Following receipt of the Montgomery Watson fax of 5 February, Mr Sloggett arranged a meeting on 6 February with Mr Searle to agree the geotechnical brief. The meeting occupied one-and-a-half to two hours. The evidence of the two participants of what was discussed on this occasion is sketchy. Mr Searle agreed that it was likely that Mr Sloggett explained to him what the job was about and what he had in mind and that he may have produced preliminary sketches. Mr Searle said he was not shown any reports, contractor's briefs or drawings and that he was told by Mr Sloggett that there was no leakage from the tanks but that site drainage advice was sought. There was no discussion about "structure design, groundwater drainage issues or general site conditions" but he accepted that it was likely that he was shown some preliminary sketches of the project, and at the end of the meeting it is clear he knew what was to be built. At the end of the meeting, Mr Sloggett produced a short document entitled "Scope of Works". It is in these terms:

"**1 LORNE STP**

- Backhoe holes (supplementary)
- Drilling rig investigation (4 major holes) to determine variation in soil profile on southern side of main access track.
- Core samples – testings as per Apollo Bay.
- Results as per Apollo Bay
- For slip analysis:
  - no additional field work
  - additional lab tests (triaxial)
  - analysis (slip)

2 APOLLO BAY STP

- Backhoe holes
- Core samples:
  - density tests
  - compaction tests
  - strength tests
  - moisture contents
  - PI
  - stiffness values for soils in berms
  - soil bearing pressures
  - specification for compaction of clays
  - shrinkage values
- Any other factors relevant to design

3 GENERAL

- Advice on site drainage under basins."

164 Mr Searle said that the work described in this document involved a little more field work at Lorne than that contemplated in his 30 January quotation but, at Apollo Bay, the requirement for drilling bore holes had been removed. He said, too, that the references to the stability analysis had been removed. I take this to be a reference to global stability.

165 On the same day, 6 February 1997, at 4.15 pm, Mr Sloggett reported to Mr Angus. He told his client that the investigations would be done by backhoe but that at Lorne there would be drilling of bore holes and the retrieval of core samples for testing. For this, he expected Barrett Fuller to charge between $5,000 and $8,000.

166 On the same day, too, Barrett Fuller provided its written quotation of $7,500 for the work described in the Barrett Fuller Scope of Works other than that under the heading "For Slip Analysis" at Lorne, together with a further $1,500 quotation if

stability analysis at Lorne was required. Again, I read this as a reference to global stability analysis.

167 On 7 February 1997 Mr Sloggett faxed the Barrett Fuller quotation to Mr Angus and spoke with him by telephone about the fees mentioned in the earlier Montgomery Watson fax of 5 February. In his fax enclosing the Barrett Fuller quotation, Mr Sloggett describes it in these terms:

> "Herewith quote for Geotech which includes for site investigations sufficient to undertake slope stability analysis".

It is apparent, having regard to its context, that the reference to slope stability here is to global slope stability. I reject Mr Sloggett's evidence that he intended this as a reference to local slope stability, if his intention be relevant. What was contemplated was that the results of the field work to be undertaken at Lorne could, at modest further cost, be used to verify the global stability of the Lorne site.

168 Mr Angus made notes of the telephone conversation with Mr Sloggett of 7 February on his copy of the 5 February fax. These notes and his evidence generally show that the third of the geotechnical items mentioned above was deleted and the second was agreed to be changed from $4,000 to $7,500. This meant that there was no mark up for any Wynton Stone input into this item for embankment design. Mr Angus said that when he reviewed the Wynton Stone fees with Mr Sloggett on 10 February 1997 he was told by Mr Sloggett that the Wynton Stone input was included in their base offer of $16,720 given on 7 November 1996. I accept this evidence. The Montgomery Watson order, S2574, was on 7 February 1997 placed on Wynton Stone for this geotechnical work at that price. Mr Angus's fax to Wynton Stone enclosing this order describes the work in these terms:

> "I enclose a Purchase Order for the amount of $7,500 for the geotechnical input by [Barrett Fuller] for the new embankments at each site (which excludes the stability analysis at Lorne pending approval by the Client)".

This excluded work on global stability at Lorne was never authorised. The terms of the Montgomery Watson order itself give a further indication of the scope of work

expected of Wynton Stone in this regard.

> "Geotechnical investigation, evaluation, reporting and consultation for embankments and associated earth works at Lorne and Apollo Bay (in accordance with your fax dated 7 February 1997).

The terms of these documents were not at the time challenged or queried by Wynton Stone.

169 In his evidence, Mr Sloggett said that it was the second $4,000 geotechnical item included in the 5 February fax, for embankment design, that was deleted following the events of 5 February and that the third item was reduced from $9,000 to $7,500.

> "The $4,000 figure in the middle? --- Yes.
>
> What happens to that? --- It disappears.
>
> Altogether? --- Yes.
>
> So you undertook the embankment design yourself? --- No, they didn't approve the appointment of a specialist.
>
> Right, who did it? --- And Montgomery Watson being the client and the civil engineer, presumably took it upon themselves.
>
> So the actual embankment design was not done by you at all? --- - No, I only did some figures just to sort of confirm in my own mind there wouldn't be a problem, as best I could.
>
> The profile of the embankment was fixed at 45 degrees so that's not very difficult, is it? --- No, it's a matter of what the stability is, though, and what the soil properties are.
>
> So who did the geotechnical examination or calculations or investigation or whatever is involved, to determine how a 45 degree embankment of the dimensions that were required for this tank could be built, was that you? --- Only in a very cursory way.
>
> I understand, but was it you? --- No.
>
> No? --- No.
>
> Who did it? --- I presume Montgomery Watson had got some advice.
>
> Somebody did it, did they not, you've seen the design and the drawings? --- Yes. That slope was given to me, Your Honour.
>
> So you say you had no part in the embankment design? --- No, other than those cursory calculations that you've got there."

170 I reject this evidence for any of a number of reasons. It is not correct to say that this second item disappeared. Mr Sloggett's evidence on this matter, as on so many matters of significance had a component of reconstruction. My impression of him as a witness generally was that he had little actual recollection of the events he described and when the contemporary documents did not assist him, he resorted to reconstruction and, even, evasion. His witness statement which stood as his evidence in chief did not condescend to very much detail. The Wynton Stone copy of the Montgomery Watson fax of 5 February 1997 contains notations written by him. These show that the $7,500 revised Barrett Fuller figure is for the second of the geotechnical items, not the third as he now says. The second item was included in the Montgomery Watson order number S2598 placed on Wynton Stone on 3 April 1997. Wynton Stone invoiced Montgomery Watson on the basis of that order and was paid for it. It is nonsense for Mr Sloggett to suggest that he believed that Montgomery Watson had carried out or would carry out the embankment design. He well knew that they did not have the capacity to do this. Moreover he had undertaken a directive and coordinating role with respect to geotechnical matters affecting the project. I would expect him to have followed up this matter if he believed in fact that he was not himself to undertake the work. In any event, it appears that he did in fact make some calculations as to the stability of the embankments to determine allowable loading and undertook a structural analysis and design of foundations and under-slab drainage system and he sought payment for this extra work, so that it is not correct to say that he did not undertake any of the design work. His explanation for this was that he thought it was prudent to carry out the limited scope analysis; if it suggested that stability might be doubtful then he would have pressed Montgomery Watson to carry out a fuller analysis. This is significantly inconsistent with his earlier position namely that he assumed that Montgomery Watson would have undertaken this task itself.

171 Furthermore, I am satisfied that Wynton Stone undertook responsibility for matters

affecting drainage under the basins, for Mr Sloggett included in the Barrett Fuller scope of works, the task of advising him on this matter.

172 I conclude from all of this that the scope of the retainer of Wynton Stone up to 6 May 1997 included such geotechnical work as was necessary for the performance of the structural design works. This included general advice as to geotechnical matters including advising whether there was a need to retain specialist geotechnical engineers for particular work, briefing the specialist geotechnical engineers, interpreting the results of this specialist work and applying these results to the structural design work in the context of the project. And where such specialist input was not sought or obtained, Wynton Stone was, under its contract with Montgomery Watson, itself to provide the geotechnical input. I mention in passing that the Wynton Stone design brief dated 5 March 1997 does not bear upon this issue.

The Barrett Fuller component

173 Barrett Fuller was retained in February 1997 to undertake certain geotechnical investigations of the two sites. It follows from my analysis of the contractual arrangements between Montgomery Watson and Wynton Stone that Mr Sloggett on behalf of Wynton Stone arranged for this to be done, settled the scope of the work which Barrett Fuller was to perform and included in its fees charged to Montgomery Watson the fees which it agreed to pay Barrett Fuller for so doing. These fees agreed with Barrett Fuller at the design stage of the works comprised $7,500 for geotechnical work on the earthworks for which it provided the quotation of 6 February 1997. Montgomery Watson placed an order with Wynton Stone for the work on 7 February. Barrett Fuller on 14 April invoiced Montgomery Watson for this and Montgomery Watson paid the sum claimed.

174 I am satisfied that the contractual arrangements for all of this work were between Wynton Stone and Barrett Fuller. I am, of course, mindful of the fact that the Barrett Fuller prices were referred by Mr Sloggett to Montgomery Watson for approval and that Barrett Fuller invoiced Montgomery Watson direct for the work on the earthworks and that Montgomery Watson made payment for it. The significance of

these facts falls away in comparison with the evidence which shows that Mr Sloggett negotiated with Barrett Fuller as a principal.

175 It follows from this that Wynton Stone must take responsibility to Montgomery Watson for all of the work performed and to be performed by itself and by its sub-consultant Barrett Fuller up to May 1997 when the structural design was signed off. As between Montgomery Watson and Wynton Stone, therefore, I am not concerned with the Barrett Fuller scope of works.

The Wynton Stone contractual obligation

176 The Montgomery Watson terms and conditions include the following. In this document the client is Minson Nacap, the consultant Montgomery Watson and the sub-consultant Wynton Stone.

> "**2.2 Professional Standard of Care**
>
> In performing the Services, the Consultant[117] shall exercise the degree of skill, care and diligence normally exercised by members of the Subconsultant's profession performing services of a similar nature, in accordance with the ethics of the Subconsultant's profession.
>
> **2.3 Knowledge of Consultant Requirements**
>
> The Subconsultant shall use all reasonable efforts to inform himself of the Client's requirements for the Project and for that purpose he shall consult the Client throughout the performance of the Services.
>
> **2.4 Additional Information Documents and Other Particulars**
>
> If the Subconsultant considers that the information, documents and other particulars made available to him by the Consultant are not sufficient to enable the Subconsultant to provide the Services in accordance with this Agreement the Subconsultant may advise the Consultant who shall then provide such further assistance, information, and any other particulars as necessary in the circumstances.
>
> **2.5 Notice of Matters Likely to Change Scope or Timing of Services or Project**
>
> If the Subconsultant becomes aware of any matter which will change or which has changed the scope or timing of the Services or the Project, then he shall give notice to the Consultant and the notice will

117 This perhaps ought to read "Subconsultant".

contain, as far as practicable in the circumstances, particulars of the change."

They also include the indemnity to which I have referred.[118] These terms were accepted by Wynton Stone on 3 April 1997. They were applicable to all of the work referred to in the Montgomery Watson letter of 23 February 1997 including work previously performed and, further, including the work which Wynton Stone had sub-let to Barrett Fuller.

Wynton Stone Breaches of contract

Groundwater

177 The drawings, or at least those with which I am now concerned, are structural drawings 5 and 6 for both sites and civil drawing 30 for Apollo Bay.[119] The preliminary version of each drawing was reviewed and approved by Aquatec and Minson Nacap for submission to Fisher Stewart on 2 and 3 April 1997. They were reviewed and approved by Fisher Stewart on 18 April 1997. Revision B of each of them was issued for construction on 8 May 1997. The design of the tanks as it is shown in these drawings makes no provision for drainage under the base slab at either site. Civil drawing 30 for Apollo Bay shows a cut-off drain 3m below the natural ground level located a short distance from and parallel to the northern wall of the northern tank. At each site the drawings show four pressure relief valves, two for each tank.

178 It will be recalled that the expert witnesses were critical of this design and were of opinion that the failure of the design to make sufficient provision for the hydrostatic pressure which the structure had to be able to cope with at each site was the cause of the failure. The case of Montgomery Watson against Wynton Stone was essentially, that it ought to have appreciated that hydrostatic pressure was a consideration to be reckoned with and that it ought to have made provision for this in the design prior to 8 May 1997 when the drawings were issued for construction. This is, incidentally, about the date that Wynton Stone passed responsibility for design to TTW under the

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118 See para [47] above.

119 Drawings YV 127.A.S.005; YV 127 A.S. 006; YV 127 L.S. 005; YV 127 L.S. 006; YV 127 A.C 030.

novation agreement of 6 May 1997.

179 Although the bore logs on the MPA Williams report of the Apollo Bay site do not disclose the presence of free ground water, there was abundant evidence available to Mr Sloggett by May 1997 which would suggest to a design engineer with geotechnical expertise that ground water was a condition which might threaten the integrity of the slender lining of the aerated tanks at Apollo Bay. I refer to the observations made by or communicated to Mr Sloggett upon the inspections of 30 September 1996 and 14 January 1997. Mr Sloggett in evidence accepted that following heavy rainfall he would expect water to percolate from the surface to the bedrock. Accordingly, he made provision in his January sketches for agricultural pipes under the base slabs. Mr Ervin said that he would do this as a matter of course.

180 The presence of groundwater at Apollo Bay was also apparent following an incident on site in mid-April 1997. Bulk excavation had commenced. On or about 14 April a wet patch was detected on the north embankment of the north tank. Mr Davis described it as a spring and he reported this to Mr Sloggett who visited the site on 16 April. Mr Sloggett's memorandum describes it as a seepage and in his evidence he estimated that it was about the size of a dinner plate.

181 I turn back now to consider Mr Sloggett's response to the prospect of hydrostatic pressure at Apollo Bay. In his January design sketches he provided for an agricultural drain running the length of each tank under the edge of the base slabs. Professor Stevens was of the opinion that this might be sufficient to protect the tank depending upon the ability of the filtering material to provide a drainage medium to enable the groundwater to arrive at the agricultural drain. Professor Duffield agreed. I accept that this is so.

182 On 12 February 1997, Barrett Fuller carried out its investigation of the two sites. Mr Sloggett then sought the results of the analysis of the soil samples for the purpose

of preparing his detail design. The information was provided by fax and telephone by Peter James Noonan, a geotechnical engineer employed by Barrett Fuller, to Mr Sloggett on or about 4 March 1997.

183 On 11 March 1997 Mr Noonan forwarded to Mr Sloggett a draft of the Barrett Fuller report on the Lorne site. In this report Barrett Fuller drew attention to the dispersive nature of the underlying silty clays and suggested a 100mm sub-base layer beneath the concrete liner and that this layer be relatively impermeable. On the question of drainage the draft report contained the following statement:

> "Due to the highly dispersive nature of the underlying **SILTY CLAYS** at this site, drainage measures and compaction levels are critical. Drainage measures are recommended to consist of the sealing of surface areas immediately up slope of the basins in order to minimize infiltration, with appropriate drainage to ensure that ponding of water does not occur. Drainage measures underneath the proposed basins are not recommended as the drains will tend to soften the dispersive **SILTY CLAY** materials and could attract seepage which in turn could increase seepage velocities and thereby increase the potential for erosion/piping effects."

Mr Sloggett then deleted the drain under the slab in his sketch of the Lorne tanks which was forwarded to Mr Noonan for his comment on 12 March. As part of the same transmittal he forwarded to Mr Noonan a sketch of the Apollo Bay tanks showing the agricultural drain under the base, as before, but with an impermeable sub-floor layer.

184 Later, on the afternoon of 12 March 1997, Mr Noonan sent by fax to Mr Sloggett the draft report on the Apollo Bay site. In the fax cover sheet Mr Noonan approved the revised design for Apollo Bay, provided the drains were not permitted to become blocked.

185 The draft report on the Apollo Bay site noted that no ground water or seepage inflow had been encountered during the investigation; the matter of concern at this site was the reactive nature of the sub-surface material. The report recommended, as with the Lorne site, the placement of a relatively impermeable layer beneath the concrete lining and contained the following similar recommendation with respect to sub-face

drainage:

> "Due to the potentially highly reactive nature of the underlying **SILTY CLAYS** at this site, drainage measures are recommended to consist of the sealing of service areas immediately up slope of the basins in order to minimize infiltration, with appropriate drainage to ensure that ponding of water does not occur. Drainage measures underneath the proposed basins are not recommended due to the reactive nature of the subsurface materials which will tend to shrink/swell with changes in moisture content."

186 The final Barrett Fuller reports for each site was issued on 17 March 1997. The passages which I have quoted were unchanged in the final reports.

187 When Mr Searle saw Mr Noonan's approval of the sub-base drainage proposed for Apollo Bay in the Barrett Fuller fax of 12 March, he reversed the decision, in the sense that he spoke by telephone with Mr Sloggett expressing his concern that the sub-base drain might become blocked over the 80 year design life of the tanks at this site and that this might cause the reactive soil to heave. Mr Searle said that he was not concerned that this meant the tanks would be unprotected from hydrostatic pressure because there was no sign that water was likely to be a problem at this site. This confidence, however, was not shared by Mr Sloggett. Mr Sloggett was surprised at the Barrett Fuller recommendation to remove the sub-base drains and he set about devising an alternative solution to protect the tanks at Apollo Bay from groundwater.

Cut-off drains at Apollo Bay

188 His first solution was the provision of a cut-off agricultural drain located 3m uphill or north of the north tank and 2.5m below normal ground level. Mr Sloggett prepared a sketch of this and on 21 March submitted it to Mr Noonan for his comment. Mr Noonan told me that he thought that this drain would not serve any purpose of removing ground water for none had been encountered. He said that he saw it merely as a protective measure. He spoke of it as a "belts and braces" measure, that is, something additional but not really necessary to protect the tanks. On 3 April, 1997 Mr Searle indicated his approval in a telephone conversation with

Mr Sloggett. This approval was confirmed by fax from Barrett Fuller to Mr Sloggett on 21 April 1997. In this fax, the geotechnical engineer advised that this cut-off drain was considered suitable for maintaining a relatively stable groundwater regime and thereby limiting the shrink/swell of the reactive soils. This advice was the subject of criticism by the geotechnical experts.

189 But, by the time this fax was sent, the seepage or spring had been detected in the north tank at Apollo Bay on 14 April. As a result of this Mr Sloggett had recommended that the cut-off drain be lowered to 3m below ground level at the east end of the tank. This is the depth shown on civil drawing 30 Revision A issued on 23 April 1997. It would seem, therefore, that the drain located at the higher level was not as effective as Mr Sloggett expected.

190 Meantime, on 17 April 1997, Mr Sloggett directed Minson Nacap to lower the drain once more, this time to 3.3m, where it intersected the water table. According to a very much later memorandum of Mr Davis, this lowering of the cut-off drain was designed to stem the spring which had been observed on 14 April and it was successful in this.

191 I will not detail the further provision of cut-off drains in September 1997 and thereafter which were provided to cope with cracking in the tanks at Apollo Bay at that time.

192 The opinion of the geotechnical experts was that, at 3.3m below natural ground surface, the cut-off drain was not below the level of the base of the tanks and that it would not protect the tanks from groundwater percolating through the soil below 3.3m. Their opinion, which I accept, is that this was a design deficiency.

Pressure relief valves

193 The structural drawings for both sites, Revision A, issued on 23 April show in each

of the tanks the provision of two pressure relief valves. The function of such a valve is to open where the tank is empty and the hydrostatic pressure under the tank reaches a stipulated head, in this case 350mm, that is, a pressure of 3.5 kPa. When the valve opens, the sub-base water is released into the tank and the pressure under the base is thereby relieved. The successful operation of such a series of these devices, therefore, will protect the base slabs from upward pressure which they are insufficiently strong to resist.

194 The opinion of the experts, which I accept, was that the provision of pressure relief valves was a prudent course for the designer to adopt in this case and it may well have been successful to protect the tanks at Apollo Bay from the failures in the base slabs which they experienced. This is subject to two qualifications, neither of which was here satisfied. First, there should be a sufficient number of valves and, second, the design should ensure that there was a sufficient path for the groundwater to make its way to a valve. As to the latter, there was some attempts to describe the space between the concrete and the forticon under it as providing such a path, but the better view was that there should have been provided an area of permeable material around each valve and that this was neither required nor provided in Mr Sloggett's design. Accordingly, the valves as designed were ineffective.

195 At the trial there was some effort directed to blaming Mr Varrasso of Minson Nacap for the provision of these valves, based on a memorandum he sent to Mr Sloggett on 13 April 1997. To my mind this is entirely beside the point. No criticism by the experts is directed to the provision of the valves; they say there should have been a greater number of them and that their installation should have been properly detailed. Second, these were a protective measure which is very common in water retaining structures such as swimming pools and, indeed, they were in the mind of Mr Sloggett on this project as early as 1996. Mr Sloggett said that within a week after the receipt of the Barrett Fuller report he telephoned Mr Searle to discuss alternative measures to deal with groundwater and that pressure relief valves were considered as an option. Mr Sloggett said he then left the matter with Mr Angus to work out

with Minson Nacap. All of this was well before Mr Varrasso's memorandum of 13 April. I find that Mr Sloggett took up the idea of the valves with Minson Nacap in late March 1997 and included them in this 23 April revision of the drawings. Finally, even if the idea of using the valves did originate from Minson Nacap, this is not a basis of legal liability or indeed a criticism. It not infrequently occurs in building projects that the builder offers suggestions to a designer based upon practical experience: this is part of the ordinary co-operation which is for the benefit of the project. But the decision to adopt or reject such a suggestion is ultimately that for the designer, as is also the mode of its implementation.

196 Accepting, as I do, that Mr Sloggett as designer made the decision to use pressure relief valves, two consequences for my purposes follow. First, that he was aware that the problem of groundwater pressure had to be addressed at both sites. Second, his design in this regard displayed a want of due care and diligence as the contract between Montgomery Watson and Wynton Stone required.

Forticon linings

197 The third design development at this time, in late April 1997, arose from the difficulties that Minson Nacap were encountering in compacting the sloping sides of the tanks as required by the design. Mr Davis discussed the difficulty with Mr Sloggett on 22 April 1997. The minutes of the 28 April 1997 project meeting record that Wynton Stone was investigating a proposal of replacing the crushed rock which was detailed to be provided under the concrete slabs with two layers of polymeric film. This change was in fact adopted so that the relatively impermeable 100mm fine crushed rock layer was replaced by a double layer of forticon. The change was later formally confirmed by TTW fax dated 10 September 1997. There was no evidence that Barrett Fuller had any input into this change.

Embankment stability

198 In his analysis of the long term stability of the embankments of both sides Mr Piper

is critical of the design, particularly at Lorne. It was not disputed at trial that no one had undertaken a long term stability analysis of the embankment at either side at the design stage, that is, before construction. No party suggested that such an analysis was unnecessary as part of the embankment design. The various parties who might have undertaken it each pointed a finger at the other.

199 Given the arrangements in place between Montgomery Watson, Wynton Stone and Barrett Fuller with respect to design, I have no doubt that the responsibility lay with Wynton Stone. In the passage from his evidence which I have quoted above[120] Mr Sloggett appears to be saying that, since no one asked him to undertake this embankment design, he presumed that Montgomery Watson had some other advice. I have rejected this evidence. But even if it were correct, the role which Mr Sloggett undertook would have involved him in following this up to ensure that it had been done or that there was some good reason for it not having been done, and, perhaps, even his giving some consideration to the results. He was, however, content to undertake a short term analysis only.

200 I find that the conduct of Wynton Stone in failing to carry out or to cause to be carried out this long term slope analysis was in breach of its contractual obligation to Montgomery Watson.

201 This conclusion, however, has little significance, because the embankments did not in fact suffer any long term loss of stability.

202 I conclude from all of this that, when Wynton Stone ceased to be responsible for design matters on 6 May 1997, its design of the tanks was seriously defective in its failure to address ground water pressures and in its design of the long term stability of the sloping embankments. I find that the breaches alleged against Wynton Stone have been made out.

The Deed of Novation

203 The first answer of Wynton Stone to this claim is that such liability has been released

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120 At para [169] above.

by the novation agreement entered into between it and Montgomery Watson and TTW. In May 1997 the business of Wynton Stone was merged with that of TTW or, perhaps acquired by TTW. Montgomery Watson as a client of Wynton Stone was invited to and did execute a deed of novation dated 6 May 1997. The other parties to the contract were Wynton Stone and TTW. Its terms are as follows. (In this document WS refers to Wynton Stone and the client is Montgomery Watson.)

"**RECITALS**

A. The client has awarded a contract dated 26/3/97 to WS for engineering consultancy services to be provided in respect to the client's job known as Lorne & Apollo Bay [Waste Water Treatment Plants] ('the contract').

B. WS desires to be released and discharged from the contract and the client has agreed to release and discharge WS upon the terms of TTW's undertaking to perform the contract and to be bound by the terms of the contract.

C. This deed is supplemental to the contract.

WITNESSES

1. **Substituted contract to take over liability**.

   TTW undertakes to perform the contract and to be bound by its terms and conditions in every way as if it were a party to the contract in lieu of WS.

2. **Acceptance of transfer by client**

   The client releases and discharges WS from all claims and demands whatsoever in respect of the contract and accepts the liability of TTW under the contract in lieu of the liability of WS and agrees to be bound by the terms of the contract in every way as if TTW was named in the contract as a party thereto to place of WS.

3. **Effective date for substitution and transfer**

   The effective date for the substitution of TTW for WS and the acceptance of such substitution and transfer by the client is the date of this deed.

4. **Client's undertaking**

> The client undertakes to pay and accepts its liability to WS to pay all moneys due and owing under the contract up to the date of this deed and to TTW as and from such dates. WS acknowledges that the services to be performed under the contract by WS prior to the date of this deed have been performed in accordance with its terms."

204 Wynton Stone contends that, by cl. 2 of the deed, Montgomery Watson released and discharged it from any liability for any deficiency in the performance of its contract with Montgomery Watson. On behalf of Montgomery Watson, it was said that, upon a proper construction of the document as a whole, cl. 2 did not have this effect. What the provision did was to deal with the rights of the parties under the sub-consultancy agreement in futuro. TTW would henceforth perform the obligations of Wynton Stone under the sub-consultancy agreement and Montgomery Watson would accept that this would be so and therefore release Wynton Stone from those obligations. Alternatively, the release did not extend beyond breaches of contract; liability for negligence remained. Alternatively, it was put, if cl. 2 did have the effect of releasing and discharging existing obligations, then these were immediately replaced by those created by the acknowledgement in cl. 4. Either way, the liability of Wynton Stone for existing breaches of its sub-contract remained. This acknowledgement, which has now been shown to have been erroneous, was also relied upon as a non-fulfilment of a condition precedent, or perhaps subsequent, to the giving of the release and also as misleading and deceptive conduct. Counsel for TTW supported the first submission of Montgomery Watson as to the construction of the deed.

205 I approach the construction of this commercial document on the basis that its terminology must be given effect to in accordance with its natural meaning. Like any commercial document, the deed must be construed, so far as possible, to give effect to the commercial objectives of the parties. Although it was prepared by TTW and submitted to Montgomery Watson for execution, I do not see this as a warrant for it to be construed *contra proferentem* against TTW.

206 The document was prepared by the lawyers of TTW and submitted in unexecuted

form to Montgomery Watson for its consideration and execution on 15 April 1997 by letter which included the following terms:

> "We wish to reassure you that the newly merged company is committed to completing all current Wynton Stone Australia contracts, under the terms and conditions originally set down, as well as all future contracts and work undertaken, on the same basis of trust and understanding, with an expanded role of service being offered. We enclose herewith a copy of our 'Novation Agreement' for your perusal, execution and return."

It will be noted that this passage and, indeed the tenor of the whole letter, was that there had been a merger of the two companies. This was not correct: Wynton Stone was to cease to trade. Mr Sloggett was to become an employee of TTW and the Wynton Stone customers and contracts were to be taken over by TTW which would continue to trade as before, but with a Melbourne office headed by Mr Sloggett. In the letter of intent dated 29 April 1997 executed by TTW and, on 5 May 1997, by Wynton Stone it is stated that "TTW will not be purchasing the shares in [Wynton Stone] nor its debtors or cash at bank. In addition [Wynton Stone] liabilities will remain with [Wynton Stone]". Furthermore, by paragraph 2 of this letter it is provided "no Work in Progress would be taken over by TTW". In his evidence Mr Sloggett characterised the transaction as one of TTW taking over the business of Wynton Stone and I think he was correct in so describing it. The terms of this letter of intent and indeed the detail of the arrangements between Wynton Stone and TTW were not disclosed to Montgomery Watson. Mr Sloggett was told by Rex Arnold van Katwyck, a director of TTW, that it was necessary for all of the current clients of Wynton Stone to enter into the deed of novation in respect of current contracts, and this was done. Mr Angus was not able to explain the delay on behalf of Montgomery Watson in executing the deed. He sent it on to Sydney for execution by his company and dated it 6 May 1997.

207 By this date, 6 May 1997, the design work of Wynton Stone was complete. The

drawings to which it had provided input had been approved by Fisher Stewart on 18 April 1997. The issued for construction drawings are dated 8 May 1997. On 24 April 1997 Wynton Stone submitted to Montgomery Watson its invoice claiming to have completed 100% of design of $16,720, being the figure agreed upon on 7 November 1996 for detail design. There was extra work undertaken by Mr Sloggett for which charge was made but this was for extra inspections on 16 April following the discovering of the damp spot at Apollo Bay and for what is described in the Wynton Stone letter of 30 April 1997 as work over and above the original scope of Wynton Stone work. There had also been some involvement by Mr Sloggett on 5 May 1997 following the slippage in the earthwork embankment at Apollo Bay on that date.

208 Returning to the text to the deed of novation, it was put on behalf of Wynton Stone that the effect of the deed and, especially cl 2, was that Wynton Stone stepped out of the picture entirely: its sub-consultancy agreement with Montgomery Watson was terminated and in its place there existed a new contract between Wynton Stone, TTW and Montgomery Watson. This is undoubtedly correct. The question is whether this extinguishment and the new contract had effect with respect to work performed prior to the effective date.

209 I should say in passing that there was some uncertainty as to this effective date. By cl 3 of the deed it is the date of the deed, that is, 6 May 1997. In the TTW invoices the date appears to be treated as 1 May and this is the date upon which Mr Sloggett commenced employment with TTW. On 5 May he sent to Barrett Fuller a request for advice using TTW fax letterhead. As a matter of construction, however, I conclude that 6 May is the effective date for the purposes of the deed of novation, but little, if anything, turns upon this discrepancy.

210 The contention of Montgomery Watson and TTW was that the deed operated to discharge Wynton Stone only from its future obligations under its sub-consultancy agreement. By cl 4 its right to receive payment for work done prior to the effective date was not extinguished. By cl 1 the liability of Wynton Stone to perform work

under the sub-consultancy agreement after the effective date passed to TTW. This interpretation also derived some support from the use of the word "transfer" in clauses 2 and 3.

211 This said, the submission put on behalf of Montgomery Watson and TTW must overcome the words of release in cl 2: "[Montgomery Watson] releases and discharges [Wynton Stone] from all claims and demands whatsoever in respect of the contract". These would normally be effective to release and discharge Wynton Stone from future claims and demands arising out of work previously performed. There is throughout the document a strong flavour of futurity. Clause 3, for example, speaks of the effective date for the substitution of TTW for Wynton Stone and for the accepting of such substitution and transfers. The heading to cl 1 also speaks of substitution and then of the taking over of liability. I have also already mentioned the undertaking of Montgomery Watson in cl 4 to pay to Wynton Stone money due and owing under the contract prior to the effective date. Such an undertaking sits uneasily with the extinguishment of the old contract.

212 Then there is the awkwardly drafted acknowledgement by Wynton Stone in the same cl 4. It would seem that the expression "services to be performed" in that acknowledgement should be read as "services performed". Counsel for Montgomery Watson said that this acknowledgement is a warranty which is inconsistent with the release in cl 2 for which Wynton Stone contends, for it substitutes for the released obligation a fresh obligation under the warranty and in virtually identical terms to it. Counsel for Wynton Stone were not able to suggest any useful role in the document for this acknowledgement. It seems to me that its role must be that of providing some comfort to Montgomery Watson and perhaps to TTW that the reason for the deed was not to enable Wynton Stone to escape the consequences of any defective work.

213 Although the matter is not free from difficulty, I conclude that the effect of the deed

of novation is as counsel for Wynton Stone contends. Its scheme is that TTW takes the contractual position previously held by Wynton Stone and that Wynton Stone ceases to be responsible under the old contract for any defective work. For this, it gives, in cl. 4, an acknowledgement of due performance which is in terms sufficiently formal to amount to a contractual warranty.

214 I should add before I leave this topic that I do not accept the submission put on behalf of TTW that for the purposes of construing the deed of novation I should have regard to the terms of the deed of indemnity executed by Wynton Stone and Mr Sloggett on 1 May 1997. There was no evidence that this document or its contents were known to Montgomery Watson when the deed of novation was executed so as to become part of the matrix of facts against which the latter document is to be interpreted. Moreover, counsel for TTW conceded in argument that the deed of novation contained no ambiguity. I should add that I am not at all persuaded that this concession is correct. At best, these contemporaneous documents show that two of the parties believed that release in cl 2 did not cover claims arising out of work done by Wynton Stone before the effective date. The states of mind of the contracting parties, however, are not relevant for the purposes of construing their document.

215 A further submission put on behalf of TTW was that the position taken by Wynton Stone as to the construction of the deed of novation was an unconscientious reliance upon the general words of cl 2 to escape a liability of which no party was aware. The point was not pleaded; in any event, for reasons which will appear, the point is without substance.[121]

Conditional release

216 It was contended that the giving of the release was conditional upon the accuracy of the acknowledgement of Wynton Stone contained in cl 4. Since it now appears that Wynton Stone had not carried out its work in accordance with the terms of the sub-consultancy agreement the release was ineffective. There is no substance in this

121 At para [217] below.

submission. Clause 2 is not expressed to be conditional and a condition of the kind contended for cannot be inferred from the document.

Misleading and deceptive conduct

217 Next it is said that the falsity of the acknowledgement given in cl 4 is misleading and deceptive conduct contrary to the *Trade Practices Act 1974* and the *Fair Trading Act* 1987 It is not clear from the Montgomery Watson reply[122] where this allegation leads. It is not alleged, nor is it proved, that Montgomery Watson relied upon this conduct. In the prayer for relief damages are sought but no loss or damage is alleged or was proved to flow from this misleading and deceptive conduct. It may be that this is directed to the allegation in paragraph 11 of the reply that, as a matter of law, Wynton Stone is not entitled to rely upon the release and discharge, for this is what was put in final address. Reliance was placed on the decision of Rolfe J in *Wilkinson v Feldworth Financial Services Pty Ltd*[123]. This case, however, did not concern the statutory prohibition upon misleading and deceptive conduct; the passages to which I was referred concerned a case where a party was precluded from relying upon a contractual exclusion in circumstances where this would be unconscientious. In any event, in the present case, this element of unconscientiousness does not exist. It was never put to Mr Sloggett that, at the time he obtained the execution by Montgomery Watson of the deed of novation, he knew that the design of the tanks was defective. He was, of course, aware of what he had done and not done as part of the design process, but I do not conclude that he had at the time the knowledge that Wynton Stone had not performed its contract in accordance with its terms and that he failed to disclose this to Montgomery Watson. It should be recalled in this regard that the failure of Wynton Stone was a failure to design the tanks so that they achieved the performance requirements of the specification.

The release of liability in tort

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122 Amended reply of Montgomery Watson to defence of Wynton Stone dated 26 August 2005.

123 29 ACSR 642 (NSW).

218 Next it is said that the release granted by cl 2 did not extend to tortious liability. I do not accept this strained construction of the release. If cl. 2 is effective to release liability of Wynton Stone for defective design work undertaken prior to the effective date so that the liability of TTW for this is substituted, I can see no rational basis for limiting this in the way suggested. It would have the consequence of undermining the commercial purpose of this aspect of the agreement.

Estoppel

219 Finally, I turn to the estoppel which Montgomery Watson would raise against Wynton Stone. There is associated with this contention a further allegation of misleading and deceptive conduct arising out of the same circumstances. There are in this case many allegations of estoppel; it is necessary therefore that I identify precisely what position it is that Montgomery Watson would hold Wynton Stone to. For this I must return to the pleadings. No less than seven representations are attributed to Wynton Stone.

(1) "...that the design responsibility for the Apollo Bay treatment plant and impliedly the Lorne plant, rested entirely with Wynton [Stone] and remained so and that TTW's role was limited to inspections to ensure compliance with the design documentation..."[124]

(2) "...that Wynton [Stone], and not TTW, would be responsible for any professional insurance liability arising from any defective design of the tanks at the Lorne and Apollo Bay treatment plants..."[125]

(3) "...that Wynton [Stone] was and continued to be responsible for the structural design of the tanks at the Lorne and Apollo Bay treatment plants and that TTW was only responsible for inspections to ensure compliance with design documentation."[126]

(4) "...that Wynton [Stone] had and continued to have an obligation to

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124 Reply paragraph 17.
125 Reply paragraph 24.
126 Reply paragraph 27(a).

Montgomery [Watson] and Minson [Nacap] for the structural design (of) the tanks at the Lorne and Apollo Bay treatment plants."[127]

(5) "...[that] by reason of Wynton [Stone] having notified its professional indemnity insurer of a potential claim arising out of Wynton [Stone's] structural design of the tanks, Wynton [Stone] was bound by cl. 5.1 of the Montgomery [Watson] - Wynton [Stone] agreement and TTW was not obliged to notify its professional indemnity insurer of a potential claim."[128]

(6) "[that] by reason of the matters referred to in sub-paragraph [(5)] above Montgomery [Watson] should not persist in its demand that TTW confirm that it had notified its professional indemnity insurers of a potential claim."[129]

(7) "[That] Wynton [Stone] would not seek to enforce its strict legal rights under the Deed [of novation] including any entitlement that it may otherwise have had to rely upon the release and discharge contained therein."[130]

220 The factual basis underlying these allegations was not very much in dispute. When, in late 1997, the deficiencies in the tank design at Apollo Bay began to become apparent, Minson Nacap turned to Mr Sloggett for advice and he made certain suggestions but these were not effective and, in the end, the matter was put in the hands of other engineers. In so acting, Mr Sloggett was acting as a TTW employee.

221 By early December 1997, with the contractual date for practical completion imminent, the superintendent under the head contract, on 8 December, gave notice of defective material or work to Aquatec pursuant to cl. 30.3 of AS4300-1995 and required advice as to proposed corrective measures. Aquatec, on 9 December, gave to Minson Nacap a like notice under the sub-contract. This was on 10 December passed by Minson Nacap to Montgomery Watson with a copy to TTW. The response of Mr Sloggett dated 11 December was sent, not on TTW letterhead, but on that of

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127 Reply paragraph 27(b).
128 Reply paragraph 27(c).
129 Reply paragraph 27(d).
130 Reply paragraph 27(e).

Wynton Stone. This is an important letter and I set it out in full:

> "We write to clarify our position in regard to the above:
>
> 1 The design responsibility rests entirely with Wynton Stone Australia and remains so;
>
> 2 Taylor Thomson Whitting's role has been, and will continue to be, one of inspections, to ensure compliance with design documentation. The inspections that have been undertaken by TTW on behalf of WSA (which no longer trades), have been at the request of Minson Constructions, the frequency and timing of such inspections being dictated by Minson Constructions in each and every case.
>
> All matters relating to the Design of this facility, should in fact, be addressed to CA Sloggett at Wynton Stone Australia, c/- Level 2, 99 Queen Street Melbourne Vic 3000.
>
> In response to your request for a final Report by Friday 12 December 1997, this matter will be addressed..."

222 In brief, this was the position maintained by Mr Sloggett thereafter. Insofar as he maintained that TTW's role was limited to inspection with no design responsibility, it is clearly incorrect as a matter of fact. From time to time during the period after 6 May 1997, Mr Sloggett was called upon to advise Minson Nacap about problems with the embankments and he gave that advice and issued directions which are properly part of the ongoing design function which he had commenced in January 1997. In so acting he was acting as a TTW employee and Montgomery Watson was charged by TTW for this. I do accept, however, that Mr Sloggett genuinely, albeit mistakenly, believed that the design function was completed before the TTW takeover and that his involvement thereafter was part of the design engineer's ongoing role in the construction process.

223 When in January 1998 things had become more serious, Montgomery Watson notified its professional indemnity insurers and advised Mr Sloggett of this. By February 1998, when cracking became apparent at Lorne, all parties were looking to their insurance positions and, more importantly, to the insurance position of each other. When asked for notification of his insurance provision, Mr Sloggett, on 24 March 1998, advised Montgomery Watson that Wynton Stone's insurers had been

put on notice. When Mr Robinson of Montgomery Watson, on 25 March, wrote to TTW seeking its confirmation that its insurers were on notice, Mr Sloggett, on TTW letterhead, faxed the response that, since Wynton Stone was the designer, and the facilities were covered by its insurance, further correspondence should be directed, not to TTW, but to Wynton Stone. Mr Sloggett maintained this position thereafter, perhaps up to March 2003[131] when Wynton Stone asserted that the deed of novation had discharged its responsibility for design shortcomings and passed this to TTW.

224 What is then put on behalf of Montgomery Watson is that it accepted Mr Sloggett's erroneous representations and did not insist that TTW provide to it evidence that its insurers were on notice. This, it is said, is misleading and deceptive conduct by Wynton Stone.

225 Furthermore, it is alleged, and it has been proved, that Mr Sloggett did not at this time recommend to his employer, TTW, that it put its insurers on notice and no notice was given by TTW. Rather the contrary, the evidence shows that Mr Sloggett told his superiors in early 1998 and thereafter only that there was a latent ground problem or a construction difficulty; it was not a design issue. This was not correct and it is difficult for me to conclude that at the time Mr Sloggett believed it to be correct. He added in his report to his superiors that, in any event, design was the responsibility of Wynton Stone, not that of TTW. In the pleading of Montgomery Watson it is said that, as a consequence, TTW did not put its insurers on notice and that it has been denied the benefit of insurance cover. This is then said to be a detriment to Montgomery Watson, if and to the extent that it is found liable to any party in this proceeding.

226 In final address, counsel for Montgomery Watson contended from all of this that the

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131 The defence based on novation first appeared in the Amended defence of Wynton Stone dated 7 March 2003 paragraph 33D.

release contained in cl. 2 of the deed of novation is not enforceable against their client. I suspect that what was here intended was that I should declare cl. 2 of the deed of novation to be void pursuant to s. 87(1D) of the *Trade Practices Act* 1974 or that I should refuse to enforce it. It is regrettable that among the voluminous pleadings, this relief was not, in terms, signalled.

227 I reject this submission for a number of reasons. First, the representations were made some months after the deed of novation was entered into. They could not therefore bear upon the decision of Montgomery Watson to enter into the deed. I would be very reluctant to make the orders sought under s. 87 where the misleading and deceptive conduct affected events long after the making of the contract. Second, I am not satisfied that Montgomery Watson was in fact induced by Mr Sloggett's statements to act to its detriment. Letters were written to TTW requesting it to provide proof that its insurers were on notice. TTW was under no contractual or other obligation to respond. By cl. 5.2 of the terms of the sub-consultancy agreement between Wynton Stone and Montgomery Watson, Wynton Stone was to have a modest professional indemnity insurance cover of not less that $300,000. This obligation passed to TTW under the deed of novation. Doubtless it would be in the interests of TTW to give notice to its insurer of any likely claim, but this was ultimately a matter for TTW. When he received the letters regarding insurance from Montgomery Watson addressed to TTW, Mr Sloggett was acting as the responsible employee of TTW. It cannot be said that the representations caused Montgomery Watson not to insist that TTW put its insurance on notice; Montgomery Watson had done so. The fact that TTW, for whatever reason, failed to act to protect its own commercial interests cannot be levelled at Wynton Stone. It was put in argument that Montgomery Watson might otherwise have written about the matter to TTW's head office in Sydney. The answer must surely be that this course was always open. Montgomery Watson was well aware of what design work Mr Sloggett was performing in late 1997. If they had troubled themselves to look at the deed of novation they might have read cl. 2. What is a remarkable feature of this part of the case is that none of the persons involved in the project on behalf of Montgomery

Watson or Wynton Stone seemed to have thought that the deed of novation had the effect now contended for on behalf of Wynton Stone.

228 Finally, the real detriment asserted by Montgomery Watson is the very practical one that it might obtain a substantial judgment against TTW upon which it might make no recovery. Such a detriment assumes, first, that TTW itself could not satisfy the judgment, but this was never established. It also assumes that TTW has no cover and that this is due to the failure to give notice.

229 The evidence as to this last matter was very unsatisfactory. In my consideration of it I bear in mind that the facts which are asserted and the evidence in support of them are essentially in the control of TTW. Its discovery on this issue was deficient, a matter which attracted justified criticism from counsel for Wynton Stone. Its only witness Mr Van Katwyck, acknowledged that the person at TTW who had the carriage of the claim under the 1997-8 policy was not himself; it was his co-director, David Carolan. No explanation was offered for the failure to call this witness and I was invited to draw an *O'Donnell v Reichard*[132] inference arising from this. I will do so. It seems that Mr Van Katwyck's firsthand knowledge of these matters was exiguous.

230 He said in evidence that he and, to the best of his knowledge, his fellow directors of TTW in Sydney were not aware of the design problem with respect to the tanks until mid-1999 but it was not until TTW was joined as a party to this proceeding in February 2001 that it gave notice to its brokers of a likely claim. No copy of this notice has been produced. A formal claim was not lodged with its insurers until October 2004. No copy of this claim was produced. The response of the insurer was by letter dated 5 October 2005, a document which was produced. In this letter the insurer advises that TTW is not entitled to notify a claim after the expiry of the policy. Further, it contends that the liability for which cover is sought is a liability assumed by TTW under the deed of novation which is excluded by cl. 3.4 of the policy.

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132 [1975] VR 916.

231 Relying upon this letter, counsel for TTW invited me to conclude that TTW's insurance had been lost. On the face of this letter it could not be said that, if it represents the position of the insurer, cover was lost due to late notification. Subsequently, I was told that, in fact, TTW and the insurer had come to some agreement with respect to the TTW insurance claims. This all came to light on day 38, long after the evidence was closed and upon production to Wynton Stone of documentation which ought to have been discovered by TTW. The fact of this recent agreement and its terms are not before me and the matter was, by agreement, between the affected parties, Montgomery Watson, Wynton Stone, TTW and Mr Sloggett, left on the basis that, as at 5 October 2005, the insurer had denied liability under the policy. I would not, in the circumstances, conclude that this remains the insurer's position. In these circumstances the detriment to Montgomery Watson has not been made out.

232 The estoppel plea based on the same representations must also fail for want of proof that Montgomery Watson acted upon them to its detriment.

233 This then leaves the claim for breach of warranty. Pursuant to cl. 4 of the deed of novation, Wynton Stone warranted due performance of its contractual obligations prior to 6 May 1997. The findings which I have made lead to the conclusion that it is in breach of this warranty and is therefore liable in damages to Montgomery Watson for this breach.

UNDER THE BARRETT FULLER CONTRACT

234 The only party asserting against Barrett Fuller a liability in contract is Wynton Stone. In its statement of claim[133] it alleges that Barrett Fuller, in breach of its obligation to exercise due skill and care, recommended that there be no drainage beneath the tanks at both sites. Accepting as I do that there was a contract between Wynton Stone and Barrett Fuller, it follows that the terms alleged were part of that contract. It is true also that in its reports of 17 March 1997, Barrett Fuller made

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133 Fourth further amended statement of claim, 9 December 2005.

recommendations to the effect that there be no drainage measures under the tanks.[134] This said, no loss or damage is alleged to have been suffered as a consequence of these breaches although damages generally are sought in the Wynton Stone prayer for relief. Most of the geotechnical experts were critical of the Barrett Fuller recommendations, saying that they were contrary to recommendations that would be expected of a reasonably competent geotechnical engineer. They say they would have recommended drainage beneath the floors and walls of the tanks.[135] The sole dissentient was Mr Shirley whose opinion was largely based upon his assumption that Barrett Fuller reasonably expected the tanks to be leak-proof and that it had only a verbal description of the plants with no plans. He accepted that, if minor leakage was contemplated, this might have been handled in any of a number of ways including the creation of a drainage path to pressure relief valves in the base slabs. He maintained that, if large rates of leakage were in contemplation, a more comprehensive solution would have to be devised. Mr Shirley was of opinion that the recommendation of Barrett Fuller against the under-slab drainage was a sound one in the light of the terms in which it was couched and having regard to the terms of reference in the Barrett Fuller retainer. He explained the difference of opinion between himself and the other geotechnical experts on the basis that they had an incorrect view of what Barrett Fuller was asked to do. It is to this that I now turn.

235 Central to the case of Barrett Fuller was that its retainer was to carry out geotechnical investigations of a limited nature. It was not provided with all of the geotechnical material available to Montgomery Watson or Wynton Stone. It was not given the 1996 MPA Williams reports nor the notes of the inspections of 30 September 1996 or 15 January 1997. It was not provided with site maps or detailed plans. The limited nature of the Barrett Fuller role was emphasised in the opening paragraphs of each of its reports, which were in identical terms:

> "The investigation has been conducted for the purpose of assessing general subsurface conditions at the site and consequently provide advice and recommendations on foundation parameters for the

134 See paras [183], [185], [186] above.
135 Geotechnical response to Q.16.

> proposed embankments, the suitability of excavated material for embankment construction as well as classification and compaction parameters for the re-usable materials."

236 The difficulty which this position must address is, first, that the Barrett Fuller scope of works document[136] is not so limited. Barrett Fuller there accepts a retainer in wide terms which includes advice in drainage under the tanks and, at Apollo Bay, "any other factors relevant to design". Second, in its reports, Barrett Fuller ventured into areas beyond which it now contends were the limits of its brief. Third, by the time the final reports were issued on 17 March 1997 it was well aware of the profile of the tanks and of the requirement for some form of drainage. Finally, in the discussions with Mr Sloggett which followed the reports, Mr Searle did not seek to limit the area of his advice which he now suggests was always the case.

237 I bear in mind that this scope of the Barrett Fuller retainer is to be determined accordance with ordinary contract principles, upon an objective examination of the communications between the negotiators. Such an examination leads me to conclude that Barrett Fuller assumed the responsibility wider than that suggested in the quoted passage from each of the reports. In short, the recommendations as to drainage contained in the reports are not to be read as limited to embankment stability, but rather they included a consideration of the sub-floor drainage generally. This, in turn, involved an assessment of the location and volume of any groundwater including that caused by leakage. If Barrett Fuller wished to limit its recommendations as to drainage in the way it now contends, it ought to have made this clear.

238 I conclude, therefore, that the criticism of the Barrett Fuller recommendations in the Wynton Stone pleading is made out. Barrett Fuller were, to that extent, in breach of their retainer. This is confirmed in the discussions with Mr Sloggett which followed the report. If Mr Searle was to qualify or limit his recommendation so as to throw upon Wynton Stone the responsibility for the sub-base drainage, he had ample opportunity to do so at that time. The evidence shows that he did not. Barrett Fuller

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136 See para [163] above.

is in breach of its contract with Wynton Stone.

UNDER THE TTW CONTRACT

239 Under the deed of novation, TTW undertook to perform the obligations assumed by Wynton Stone under its contract with Montgomery Watson with respect to the two plants. So much is admitted by TTW in its defence.[137] It adds in paragraph 33EA of its pleading that the relevant design work was completed by 30 April 1997. This may be correct: the effective date was 6 May 1997 by which the detail design was complete. I have concluded that TTW have inherited from Wynton Stone its responsibility for the work carried out by Wynton Stone in breach of the sub-consultancy agreement prior to the effective date. This has the consequence that it matters not that the design work was completed before that date. TTW is, therefore, liable to Montgomery Watson for the losses which flow from those breaches.

240 TTW further alleges in paragraph 33EA(c) that it had no obligation under the deed of novation or otherwise to check or in any way revise the work of Wynton Stone. I find myself unable to accept this as a matter of principle. In this case, under the deed of novation TTW inherited the contractual obligations of Wynton Stone to conduct inspections of foundations and upon completion. This was no sterile function; the inspection by the design engineer involves the consideration not only of the implementation by the contractor of its design, but also an assessment of any apparent deficiencies in that design. TTW appears, too, to have accepted an obligation to deal with matters affecting the design as they arose during the construction phase. This continuing obligation in such case as the present would require the designer to check the original design to make corrections where this was required.[138]

There may be some debate about when this continuing duty ceases to exist, but

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137 Further amended defence 25 November 2005 to the Montgomery Watson statement of claims, paragraph 33EA(b).

138 *Brickfield Properties Ltd v Newton* [1971] 3 All ER 328 at 336 per Sachs LJ. See, too, *Edelman v Boehm* (1964) 26 SASR 66 at 73-4, per Napier CJ, Chamberlain and Bright JJ.

where, as here, matters came to light before practical completion, this debate does not bear upon the outcome. In the same way that Mr Sloggett as director of Wynton Stone was required to satisfy this continuing duty, so too did he, after 6 May 1997 as employee of TTW.

241 The first question which arises in this context is whether there appeared after that date matters which called for a modification of the design of the tanks. In final submission counsel for Wynton Stone said only that there was doubt as to this. Counsel for TTW, not surprisingly, said that no such indication appeared. During the construction phase prior to the failures there were four incidents in which individually or collectively were said to point to design deficiencies and to call for a reassessment of the design. In evaluating these incidents it is necessary to be cautious and to put oneself in the position of the competent engineer at the time. The mere fact that an incident on site could or can now be seen as indicative of a defect does not necessarily mean that this should have been apparent at the time. On the other hand, I must put to one side the understandable reluctance of the designer to reach a conclusion that a deficiency in his design is indicated.

242 The first incident is the appearance of the seepage on 14 April 1997. I have already described this incident.[139]

243 The second was a slippage on 5 May 1997 in the earthwork embankments on the north tank at Apollo Bay. Mr Sloggett did not attend the site at this time. In his report to Wynton Stone of the slippage, Mr Davis, the Minson Nacap project manager, offered the opinion that the slippages were due to rain and suggested that the embankments be stabilised by stabilised sand. But he expressed some reservations about the effectiveness of this in the places where the slippage was worst. On the same day Mr Sloggett forwarded this report on a TTW fax coversheet to Mr Searle of Barrett Fuller for his advice. Mr Searle's verbal response was that the course proposed by Mr Davis was appropriate.

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139 See para [180] above.

244 Although the slippage occurred and was responded to by Mr Sloggett the day before the effective date of the deed of novation, it seems from Mr Sloggett's use of the TTW stationary that he had already started with that company. TTW was therefore aware, if not involved, in the assessment of and response to this slippage.

245 Mr Duffield expressed concern about the significance of this slippage in terms of the stability of the embankments. It will be recalled that the concrete lining of the tanks performed no structural function; the banks had to be stable without any reliance upon the concrete for long-term support. Mr Duffield said that this slippage would have been a matter of grave concern for a prudent geotechnical engineer. Mr Ervin, who saw the tanks in their failed condition, said that he would have been concerned upon receiving Mr Davis' report and would have visited the site and spoken to the author in order to learn more about the incident. I am not satisfied on the evidence before me that this incident, by itself or in conjunction with the first incident, warranted a review of the embankment design generally.

246 The third incident is a further collapse in mid-July 1997, again of the embankment of the north tank at Apollo Bay. In his report of 16 July, Mr Sloggett records his visit to the site and noted the presence of decayed tree roots in the vicinity of the slippage, the occurrence of high rainfall overnight and the fact that a piece of heavy machinery had been working at the top of the embankment nearby. He gave certain interim instructions in order to protect and preserve the embankment. He said that he was concerned that this indicated something serious and later, he was concerned about all of the slips that had occurred and that he feared that the embankment might collapse in construction or in operation. On 21 July, Mr Sloggett faxed Mr Noonan requesting him to check the stability of the embankment, and on the following day he and Mr Noonan inspected the site.[140] Mr Searle said that he made the calculations necessary to determine slab stability but, unfortunately, these had been mislaid. He later reported to Mr Sloggett that the surcharge would not cause stability issues. When asked what might be the reaction of a competent and prudent geotechnical

140 Mr Sloggett's report of this inspection appears to be erroneously dated 26 July.

engineer to this further incident, Mr Ervin and Mr Phillips said that such an engineer would visit the site and discuss the matter with other members of the design team to determine why the slippage had occurred and what should be done to prevent a recurrence. Mr Shirley and Mr Forbes generally agreed with this course. Mr Shirley said, too, that he saw this and the earlier slippage in May as essentially construction issues arising because the excavation was open too long. Again, I do not see this incident, alone or in conjunction with the earlier incidents, as warranting a general review of the embankment design.

247 The fourth incident concerned the difficulties which were experienced by the contractor at Apollo Bay in sealing the joints between the concrete slabs. This is referred to in paragraph 3.13 of the Minutes of Contract Review Meeting No. 12 on 6 November 1997. According to Mr Davis, the project manager, this was due to groundwater pressure under the slabs. Difficulties with the sealant had been the subject of ongoing communications involving Mr Sloggett since August. These difficulties appear to have been the product of construction difficulties rather than groundwater. By this stage, too, leaking was becoming a problem at Apollo Bay.

248 What was put against TTW was that these incidents should have caused Mr Sloggett to revisit his design for Apollo Bay and that, had he done so, he ought to have perceived and rectified the defects at that site. In all probability, then, he would have recommended like changes at Lorne with the consequence that the failures would have been avoided. I do not accept this submission. As things appeared, the first three incidents did not warrant such drastic action. And by the time the groundwater pressure at Apollo Bay was beginning to have an adverse impact on the construction and the structure it was really too late to revisit the design assumptions. The remediation course which was ultimately adopted has been accepted by all parties as appropriate. It may be that, had Mr Sloggett reviewed his design in November 1997 this same course would have been adopted, but a year or so earlier than was ultimately the case. To my mind it was consistent with the proper performance of the TTW contract that he adopt the conservative rectification

courses that he did. I find no breach of the designer's continuing duty.

249 I turn now to the alternative TTW defences based on conventional estoppel and *Anchun* estoppel.

Conventional Estoppel

250 Paragraph 33HA of the TTW defence lists a large number of communications which are said in paragraph 33HB to lead to the conclusion that, from about 11 December 1997, Montgomery Watson, Wynton Stone and TTW have acted on the basis that the legal effect of the deed of novation is that:

> "(a) The responsibility for the original design work at the Apollo Bay Sewerage Treatment Plant rests entirely with Wynton;
>
> (b) TTW's role in relation to the Apollo Bay Sewerage Treatment Plant was one of inspections at the request of either Minson or Montgomery to ensure compliance with design documentation; and
>
> (c) TTW does not bear any liability arising from the design of the Apollo Bay Sewerage Treatment Plant."

The documentation for the most part is correspondence in which TTW from December 1997 took the position that after the deed of novation, its role was limited to inspecting the works and that it had no design responsibility.

251 This is indeed a brave contention by TTW. The matters alleged do not, for the most part, concern the legal effect of the deed of novation. There is little evidence that the misapprehensions alleged were present in the minds of the three parties prior to December 1997. In any event, the author of any misapprehension was its own employee Mr Sloggett who procured the execution of the deed of novation by Montgomery Watson and who knew all of the facts which underlay the correspondence relied upon. No person other than he appears to have contributed to any misapprehension. If there was any misapprehension in TTW or Wynton Stone, it was self-induced.

252 Then it is said that TTW acted to its detriment inasmuch as it did not independently review the designs and did not in 1997, 1998 or 1999 put its insurers on notice. As counsel for Wynton Stone pointed out, the evidence of this was unsatisfactory. There was no evidence that TTW did not undertake such a review. I have already outlined the factual position with respect to TTW putting its insurers on notice.[141] Again, this is due to no cause other than the failure of TTW's own employee, Mr Sloggett, to advise his superiors truthfully and comprehensively as to what was the position with respect to the project. For reasons which I have mentioned,[142] the evidence that TTW had no cover under its specific indemnity policy is unsatisfactory.

253 Then it is said that TTW, acting upon the representations, has been denied cover under an entirely different professional indemnity policy. This is the policy for the year 2000-2001. In final address this contention was not pressed; it was accepted that the only insurance cover which might cover the present claims against TTW is that conferred by the Pacific Indemnity policy.

254 I do not accept that conventional estoppel here arises. There is nothing unconscionable in Montgomery Watson maintaining, as it does in the alternative, that the effect of the deed of novation is to impose liability for defective design upon TTW.

Anshun Estoppel

255 Following the deed of novation, TTW billed Montgomery Watson for work done and on 9 April 1999 commenced a proceeding for its unpaid fees in the Local Court at Sutherland, New South Wales. Montgomery Watson failed to defend the proceeding and a default judgment in the sum of $42,269.94 was entered on 10 May 1999. This judgment was satisfied by payment in June 1999. It was contended on behalf of TTW that it was open to Montgomery Watson to have raised against TTW in that proceeding by way of defence or counterclaim the allegations which it now makes

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141 See para [225] above.

142 See paras [229]ff above.

arising out of the defective work for which TTW is responsible.

256 The principle that a party to a proceeding will be prevented from raising in that proceeding an issue which was open to be litigated in an earlier proceeding is not an absolute one. It is founded upon the policy that there should be an end to litigation in a particular matter[143] and that the other party should not be unreasonably vexed by unnecessary litigation. The requirement of unreasonableness is emphasised by Gibbs CJ, Mason and Aickin JJ in *Anshun's* case in the following passage:

> "In this situation we would prefer to say that there will be no estoppel unless it appears that the matter relied upon as a defence in the second action was so relevant to the subject matter of the first action that it would have been unreasonable not to rely on it.[144]

257 There is some uncertainty as to whether the test for the operation of this estoppel is narrower than that of mere unreasonableness[145] but it is not necessary that I enter upon this because, even on this wide basis, the estoppel does not arise in this case.

258 It is necessary to see how things stood with TTW at the time it obtained judgment in New South Wales April 1999. This judgment was for $37,986.30 plus interest and costs, of this sum $21,237.50 related to an unrelated project at Penrith. The phase 2 construction of the Barwon project had been completed on 16 December 1998 and the phase 3 commissioning was underway. No litigation in this Court had yet been commenced. The losses of Barwon as a consequence of the failures of the tanks had not yet been quantified and, as consequence, that of Aquatec, Minson Nacap and Montgomery Watson. TTW was maintaining to Montgomery Watson that it had no responsibility for any design deficiency. In this it was supported by Wynton Stone's contention, contrary to its present position, that it accepted responsibility. In so doing, however, Mr Sloggett was attributing the failures to construction defects by Minson Nacap. In these circumstances it was not unreasonable for Montgomery Watson not to raise the matters in the Local Court proceeding. Indeed, there is

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143 *Port of Melbourne Authority v Anshun* (1981) 147 CLR 589 at 609, per Brennan J.

144 (1981) 147 CLR 589 at 602. See, also, *Gibbs & McAllion Lloyd Pty Ltd v Kinna* [1999] 2 VR 19 at 26 [21], per Kenny JA; *Pertsinidis v Australian Central Credit Union Ltd* [2001] SASC 244.

145 See *Gibbs & McAllion Lloyd Pty Ltd v Kinna* [1999] 2 VR 19 at 26 [22], per Kenny JA.

something incongruous in the present position now adopted by TTW on this matter. It has recovered relatively painlessly the sum of less than $16,000 which it claimed to be outstanding on the Barwon project. Its denials of responsibility for design were based upon assertions of its employee which were erroneous as a matter of law and, as a matter of fact, false. It now seeks to defeat claims against it for many millions of dollars by relying upon the apparent acceptance of its own misleading statements by the party which it has wronged. I reject the defence based on *Anshun* estoppel. I conclude, therefore, that TTW is liable to Montgomery Watson in damages for breach of contract.

UNDER THE TTW - WYNTON STONE DEED OF INDEMNITY

259 As part of the takeover by TTW of the business of Wynton Stone, those parties and Mr Sloggett entered into a deed of indemnity. The document in evidence is undated but Mr Sloggett said it was dated 1 May 1997 and I am content to proceed on the basis that this is so.

260 I will not dwell on the detail of this document. In it Wynton Stone and Mr Sloggett warrant due performance of the work previously performed in respect of the existing Wynton Stone contracts, including that concerning the Barwon project, and they agree to indemnify TTW against any claims, costs or expenses including legal costs on a solicitor and client basis resulting from a breach of that warranty.

261 In final address counsel for Wynton Stone and Mr Sloggett submitted that, under this indemnity, their clients were liable only for loss caused by defective work prior to 1 May. Insofar as the loss of TTW was a product of a subsequent breach of contract as, for example, a breach of its continuing duty to revisit the design of the tanks, then such loss is not covered by the indemnity.

262 I have found no breach of this continuing duty so that this question does not arise. No other submission having been offered on their behalf, I conclude that each of Wynton Stone and Mr Sloggett is liable to indemnify TTW in terms of cl. 3 of the deed of indemnity in respect of the defective design work performed prior to the

effective date of the deed of novation.

THE NEGLIGENCE CLAIMS

263 As appears from my summary of the causes of action in this proceeding there is a profusion of negligence claims asserted. This profusion descends into confusion unless, as was not invariably done in this case, attention is focused on the precise nature of the duty of care and between which parties this duty is asserted. In this case breach of a duty of care is raised in three quite different circumstances:

(1) As a cause of action giving rise to a claim for damages. In this case the plaintiff alleges that the defendant owes to it a duty of care, that the duty is breached and that the plaintiff has suffered consequent loss and damage.

(2) As an ingredient of a s. 131 claim for apportionment. In this case the party seeking apportionment (D1) is itself a defendant to a claim by a plaintiff (P) in damages. It then asserts that its co-defendant (D2) owes a duty of care, not to itself (D1), but to P, and that it is in breach of that duty, as a consequence of which P has suffered loss and damage with the ultimate consequence that D2 is also liable jointly or severally with D1 to P in damages.

(3) As an ingredient of s. 23B of a *Wrongs Act* claim for contribution. For present purposes the negligence claim plays much the same role as it does in the s. 131 apportionment claim. The defendant seeking contribution (D1) whose wrongful act has caused the damage to P alleges that the party against whom contribution relief is sought (R) (who is not necessarily a co-defendant) owed a duty of care to P and that R is in breach of that duty whereby P has suffered loss and damage which is the same loss and damage as caused by the wrongful act of D1. The consequence of this is that both D1 and R are liable to P in respect of the same damage.

264 I mention at this preliminary stage that nearly all of the negligence allegations were made in support of apportionment claims and contribution claims. It follows from this that the forensic interest in pressing these allegations lay, not so much in the

party which as plaintiff was said to be pursuing a claim for damages against a negligent defendant, but in a defendant seeking to dilute its liability to the plaintiff under s. 131 or seeking to recover contribution under s. 23B.

THE BARWON NEGLIGENCE CLAIMS

265 Following the settlement of the Barwon claim against Aquatec, no party alleges that a duty of care is owed to Barwon or that any party breached such a duty of care.

THE AQUATEC NEGLIGENCE CLAIMS

266 A duty of care in favour of Aquatec is alleged in the Minson Nacap s. 131 statement of claim insofar as it is now maintained, and in the Minson Nacap contribution claim. The parties which are said to owe this duty to Aquatec are Montgomery Watson, Wynton Stone, Barrett Fuller, Fisher Stewart and TTW. Although the factual bases for these duties are pleaded in standard form in the Minson Nacap s. 131 statement of claim,[146] each must be examined separately.

267 The claims against these parties which are imputed to Aquatec are claims for pure economic loss. This is a notoriously difficult area of law having regard to the need of the law to strike a balance between the traditional touchstone of foreseeability and commercial realities. As Purchas LJ put it in 1988, "… there is no precedent for the application of strict logic in treading the path leading from the basic principle established in *Donoghue v Stevenson* towards the Pandora's box of unbridled damages".[147] Accordingly, I proceed with some caution. The current thinking of the High Court is to be found in *Woolcock Street Investments Pty Ltd v CDG Pty Ltd*[148] whose principles I shall endeavour to apply. I should mention at the outset that these principles fall to be applied in this case without the assistance of authoritative decisions on analogous relationships. The nearest cases to which I was referred were the English case of *Pacific Associates Inc v Baxter Co*[149] and my own decision in *John*

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146 Statement of claim dated 2 March 2004. Notwithstanding that in the prayer for relief in this pleading Minson Nacap seeks damages, I was told that in fact it was intended to seek apportionment only.

147 *Greater Nottingham Co-operative Society Ltd v Cementation Piling and Foundations Ltd* (1988) 41 BLR 43 at 60

148 (2004) 216 CLR 515.

149 [1990] QB 993.

Holland Construction and Engineering Pty Ltd v Majorca Project Pty Ltd[150] both of which concern the special role of the superintendent or architect in the building project and the decision of the British Columbia Court of Appeal in *Edgeworth Construction Ltd v ND Lea & Associates*[151]. In each of them it was necessary to consider a duty of care in a complex construction project where there was "a web of contractual relationships".

268 It cannot be over-emphasised that this is a major commercial project undertaken by a public authority supported by a firm of consulting engineers. The contractual arrangement that it entered into with Aquatec was of a very formal kind for the design and construction of the project with a sophisticated standard form of contract, AS4300-1995, and a specification which was essentially a performance specification. The project was put to tender and, following acceptance of the Aquatec tender, there were extensive discussions between Aquatec and Fisher Stewart on behalf of Barwon. These discussions included negotiations as to matters for which Aquatec accepted responsibility, including sub-surface conditions. The contract which these parties entered into contained abundant protection for Barwon in the event that Aquatec's work did not comply with its contractual obligations.

269 It will be recalled that in the pre-tender stage of the project it was contemplated that Minson Nacap and Montgomery Watson would join with Aquatec as a consortium for the submission of a joint tender. This joint venture structure was abandoned in favour of a succession of contracts, but it was always within the contemplation of the three venturers and Barwon that the work would be spread between them. This meant, for example, that Minson Nacap assumed legal responsibility in contract for design work for which it had no capacity and which all knew would be carried out by Montgomery Watson. Mr Fraser, the managing director of Minson Nacap told me how he and Mr Lawson of Aquatec negotiated matters such as the responsibility of sub-surface conditions. He conducted similar negotiations with Mr Robinson and Mr Angus of Montgomery Watson. These parties were at arm's length and Mr Fraser said that his discussions with Mr Robinson and Mr Angus became, at

150 (1996) 13 BCL 235.
151 (1991) 54 BLR 11.

times, "quite tense". In the event, the negotiators in each case settled where the risk should lie and this was incorporated in the documentation. This documentation was being exchanged as late as mid-March 1997 when the sloping side design had been accepted, the Barrett Fuller reports received and the latent conditions clause removed from the Barwon head contract and the Minson Nacap sub-contract.

270 The contractual obligations of Minson Nacap extended to both design and construction of the work the subject of the sub-contract. A sub-contract supervisor employed by Aquatec was appointed under AS4303-1995 with extensive powers to require the correction of defective work. Under the sub-contract Aquatec had the added protection of security in the form of a bank bond in a sum equal to 5% of the sub-contract price to be given by Minson Nacap for due performance of the work.

271 The four parties who are said to owe duties of care to Aquatec are, other than Fisher Stewart, essentially parties down the contractual chain from Minson Nacap. And so, from Aquatec's point of view, their work was the work of Minson Nacap.

272 It is convenient at the outset to observe that this case differs from *Bryan v Maloney*[152] and the *Woolcock Street* case[153] inasmuch as Aquatec, the party which is said to be the object of the duty of care, is not an assignee of the proprietor. Aquatec, as the party with whom Minson Nacap contracted, occupies a position analogous to that of a proprietor. Wynton Stone, as the party which is said to owe the duty, is a stranger to that contract although it is connected to that contract by the contractual chain. A further and very significant feature of this case is that Aquatec is itself a contractor which assumed design obligations to Barwon as proprietor, so that an important point of distinction is that Aquatec does not occupy anything like the position of a lay home builder who had placed the project in the hands of an apparent expert or that of a home purchaser confronted with a complete and apparently sound structure. Aquatec voluntarily assumed contractual responsibility to Barwon for the relevant sub-surface conditions and for the structural design which was ultimately

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152 (1995) 182 CLR 609.

153 (2004) 216 CLR 515.

undertaken by Wynton Stone.

273 The Court is directed to examine the character of the relationship[154] between the party said to owe the duty and the object of that duty. This examination would also have regard to the nature of the damage suffered because any duty of care must be a duty to avoid a specific class of damage.[155] In the present case the parties in question are all professionals in varying aspects of the building industry who have come together to produce a complex and substantial engineering plant. They have bound themselves in a particular contractual hierarchy, in many cases, notably in the case of Aquatec, by formal and sophisticated contracts. The contracts were entered into at arm's length after negotiation. Again, these negotiations varied as between the different contracts.

274 As I have mentioned, in these contracts, the parties providing the services or the like assumed the risk of liability in the event of deficiency in those services and this was doubtless reflected in the price agreed to be paid to them. Furthermore, it is not difficult to find that the losses suffered by Aquatec were reasonably foreseeable by those parties which played a role in the project.

275 In the *Woolcock Street* case the judgments make it clear that the duty of care, in a case such as the present, will arise only where something more than mere foreseeability of loss is present. One of the features which all of the justices emphasise is the vulnerability of the plaintiff; that is, the inability of plaintiff to protect itself from the consequences of a want of reasonable care by the defendant.[156] I mention this at the outset because the question of vulnerability looms large in all the duty allegations in this case.

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154 *Moorabool Shire Council v Taitapanui* [2006] VSCA 30 at [71], per Ormiston and Ashley JJA.

155 *Sutherland Shire Council v Heyman* (1985) 157 CLR 424 at 487, per Brennan J.

156 (2004) 216 CLR 515 at 530 [23] per Gleeson CJ, Gummow, Hayne and Heydon JJ, at 548 [80]-[81], per McHugh J, at 575 [168] per Kirby J and at 592 [222] per Callinan J.

276 There are a number of salient features which have been referred to in the judgments as material to the termination of the appropriate relationship.[157] These include the assumption of responsibility by the suggested wrongdoer and known reliance by the victim. Associated with this, in a co-operative venture such as the present, it seems to me that the contractual regime is of significance, as well as the professional relationship which existed in fact between those parties. If the area of expertise brought to the project by a suggested negligent party is such as to be outside the ordinary experience of the others, it is less difficult to conclude that there was known reliance and, incidentally, a vulnerability on the part of the party suffering loss. In *Bryan v Maloney* this disparity in expertise appears to have been a very significant factor.

Claim Against Montgomery Watson

277 The first party which is said by Minson Nacap to owe Aquatec a duty of care is Montgomery Watson. It is clear from the evidence that Aquatec was well able to protect itself from the consequences of any want of care on the part of Montgomery Watson in its design work and, further, that it did so. This was achieved by inserting in its sub-contract with Minson Nacap measures to ensure that any defects would be identified and rectified. If only for a want of vulnerability, the asserted duty of care in Montgomery Watson must be rejected.

Claim Against Wynton Stone

278 Next, it is said by Minson Nacap that Wynton Stone owed a duty of care to Aquatec. The allegations which give rise to this duty are set out in paragraph 16 of the Minson Nacap s. 131 statement of claim.[158]

> "16. At all material times until about 6 May 1997:
>
> (a) Wynton Stone knew that Aquatec had entered into the Head Contract which included the construction of the civil works, and that the owner of the waste water treatment plants was Barwon.

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157 See *Johnson Tiles Pty Ltd v ESSO Australia Pty Ltd* (2003) Aust Torts Reports 81-692 at [755], per Gillard J; *Fortuna Seafoods Pty Ltd v The Ship "Eternal Wind"* [2005] QCA 405 at [75] per Jerrard JA.

158 The fourth Minson Nacap court document referred to in paras [37] and [42] above.

(b) Wynton Stone knew that Nacap entered into the Sub-Contract to design and construct the civil works and in turn Nacap had engaged Montgomery Watson to carry out the design and prepare drawings for the civil works.

(c) Wynton Stone knew that the civil works it had been engaged to design ('structural design') were works that formed part of the subject of the Head Contract and the Sub-Contract.

(d) Aquatec knew that Wynton Stone had been engaged by Montgomery Watson to undertake structural design of certain aspects of the civil works.

(e) Aquatec relied on Wynton Stone to:-

(i) Exercise due skill, care and diligence in the execution and completion of the structural design;

(ii) Ensure that the design carried out by it was suitable, appropriate and adequate for the purpose of the waste water treatment plants, the subject of the Head Contract and the Sub-Contract;

(iii) Ensure that it would execute and complete the structural design in such a manner that the waste water treatment plants when constructed would be fit for their intended purpose;

(iv) Carry out the structural design in a proper or professional manner.

(f) Wynton Stone assumed responsibility to:

(i) Exercise due skill, care and diligence in the execution and completion of the structural design;

(ii) Ensure that the structural design carried out by it was suitable, appropriate and adequate for the purpose of the waste water treatment plants, the subject of the Head Contract and the Sub-Contract;

(iii) Ensure that it would execute and complete the structural design in such a manner that the waste water treatment plants when constructed would be fit for their intended purpose;

(iv) Carry out the structural design in a proper or

professional manner.

(g) Wynton Stone knew that in the event that it failed to do the things referred to in (e) and (f) hereof or any of those things, it was likely that Montgomery Watson and then in turn Nacap, Aquatec and Barwon would suffer loss and damage.

(h) Wynton Stone carried out its structural design work in the expectation that it would be paid for the same."[159]

279 Prior to the deed of novation the involvement of Wynton Stone and of Mr Sloggett in the design process was well known to Aquatec, as was the fact that he was involved in the geotechnical investigations at both sites. I have little difficulty in concluding that it was reasonably foreseeable by Mr Sloggett, as the controlling mind of Wynton Stone, that if he carried out his work without due care, there was a prospect that all parties up the contractual chain would suffer loss. One need only suppose, for example, that he had specified an insufficient concrete strength in the tanks. While there is abundant power under the head contract for the superintendent to require that this be removed and replaced with an appropriate material, it is exceedingly likely that the cost of doing this and the consequent disruption and delay would mean that Minson Nacap and Aquatec would suffer loss.

280 The emphasis in this plea upon reliance by Aquatec and the assumption of responsibility by Wynton Stone doubtless reflects the emphasis which the High Court laid upon these matters as salient matters giving rise to a duty of care at the time the pleading was drafted. I doubt very much whether the requirement of reliance has been made out in this case. Aquatec was doubtless confident that Wynton Stone would discharge its design responsibilities with due skill and care. It was aware that the Wynton Stone design would pass through the hands of Montgomery Watson and that the drawings would be signed off by it as having been checked. In its fax of 19 March 1997, Montgomery Watson confirmed with Wynton Stone that the drawings would be issued in three stages: preliminary issue for review to be signed off by Minson Nacap and Aquatec; approval issue for approval

159 The names of the parties have been modified to accord with the terminology adopted in this judgment.

by Fisher Stewart and, finally, a construction issue. This in fact occurred. In the case of the structural drawings they were approved by Minson Nacap on the 3 April and Aquatec on 2 April 1997 for submission to Fisher Stewart and were submitted to Fisher Stewart on 23 April. The Fisher Stewart approval was given on 18 April [sic] and on 8 May 1997 Mr Sloggett on behalf of TTW, after a final check, approved them for construction. In evidence before me most, if not all, of these parties tended to downplay their role in this checking process. Nevertheless, it is clear that the design was largely a collaborative effort, passing through the hands of parties with a variety of skills in design and construction. It cannot be denied that each of them, as well as Barwon, expected Wynton Stone to carry out its work with due skill and care, for Wynton Stone professed expertise in matters relating to structural design, including geotechnical aspects of this. For this reason, each of them would have been respectful of the Wynton Stone design and its recommendations, but the position of Aquatec in this environment was far removed from that of a tyro surrounded by experts.

281 The other side of the facts pleaded is the assumption by Wynton Stone of responsibility to Aquatec to exercise due skill and care. In the circumstances which I have outlined, it is apparent that Wynton Stone assumed responsibility for its work and accepted payment for this. Despite his evidence, much of which was to the contrary, I find that Mr Sloggett so conducted himself during the design phase and afterwards that he considered himself and other parties accepted him as being in charge of and responsible for the structural design, including the geotechnical aspects of this. It is sufficient to recall the extent to which his expertise was called upon and referred to when problems arose at this stage and thereafter.

282 The other salient feature, and one not mentioned in the plea, is the question of vulnerability. In *Woolcock's* case, McHugh J had this to say about the vulnerability of a property owner or purchaser, much of which may be transposed to the fact situation such as the present.

> "There are many means of protection open to first owners and purchasers of commercial buildings to cover the risk that the building

> may have latent defects. The first owner can enter into contractual arrangements with those involved in the construction. Those arrangements can include warranties concerning the fitness of the building for the purpose for which it was constructed. The first owner can supplement the contractual arrangements with those directly involved by obtaining similar warranties from directors and other persons connected with the construction of the building. The first owner can employ other professionals to check the work of those directly involved in the project. Subsequent purchasers can protect themselves by entering into similar arrangements with their vendor. They can take an assignment of the vendor's rights (if any) against the builders and others. They can minimise the risks of loss from physical defects by obtaining expert investigations of the building." [160]

It will be noted that his Honour is not here speaking of what the proprietor in fact did, but of that which was open to it to do. The majority judgment in that case makes the same point:

> "Neither the facts alleged in the statement of claim nor those set out in the Case Stated show that the appellant was, in any relevant sense, vulnerable to the economic consequences of any negligence of the respondents in their design of the foundations for the building. Those facts do not show that the appellant could not have protected itself against the economic loss it alleges it has suffered. It is agreed that no warranty of freedom from defect was included in the contract by which the appellant bought the land, and that there was no assignment to the appellant of any rights which the vendor may have had against third parties in respect of any claim for defects in the building. Those facts describe what did happen. They say nothing about what could have been done to cast on the respondents the burden of the economic consequences of any negligence by the respondents. The appellant's pleading and the facts set out in the Case Stated are silent about whether the appellant could have sought and obtained the benefit of terms of that kind in the contract." [161]

A moment's reflection will show how less vulnerable was Aquatec in this case.

283 It follows from this that Wynton Stone did not owe to Aquatec the duty of care alleged in the Minson Nacap pleading.

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160 *Woolcock Street Investments Pty Ltd v CDG Pty Ltd* (2004) 216 CLR 515 at 558 [111].

161 *Woolcock Street Investments Pty Ltd v CDG Pty Ltd* (2004) 216 CLR 515 at 533 [31] per Gleeson CJ, Gummow, Hayne and Heydon JJ.

Claim Against Barrett Fuller

284 Next, it is said by Minson Nacap that Barrett Fuller owed Aquatec a duty of care.[162] I will not set out the pleadings. They assert, in terms rather similar to those directed to Wynton Stone, that Aquatec relied upon the skilful and careful performance by Barrett Fuller of its functions and that Barrett Fuller assumed responsibility for this. Rather different considerations are raised in these pleas because Barrett Fuller, as a specialist geotechnical engineer, was operating in a more arcane area of engineering than Wynton Stone. I accept that Mr Sloggett held himself as having perhaps more expertise in this field than is usual for a structural engineer. Indeed, one of the surprising features of the evidence in this case was the readiness with which a number of experienced structural engineers who played a role in the project professed a limited understanding of matters geotechnical. Even making allowance for a little exaggeration in this evidence, I am satisfied that the investigation and analysis of the geotechnical aspects of the embankment design and the groundwater, especially at Apollo Bay, was beyond the competence which might be expected of a generalist structural engineer. This bears upon the reliance question and, to some extent, upon vulnerability.

285 It is, however, necessary to bear in mind the conduct of Barrett Fuller which is the subject of criticism. These are essentially its failure to apprehend the existence of groundwater as a potential problem at Apollo Bay and its recommendations against sub-floor drainage at both sites. Subsidiary criticisms were directed to its response to queries following the slippages at Apollo Bay in April, May and July. These are all matters which I find are within the expertise of a competent generalist structural engineer. The evidence before me shows that such an engineer ought to have queried the omission of sub-floor drainage at Apollo Bay and, indeed, it seems that Mr Angus, at least, did so.

286 In these circumstances the question as to reliance by Aquatec upon the work of Barrett Fuller becomes a little doubtful. The conclusion which I reach is that, in a general sense, Aquatec relied upon the skilful and careful performance of its work by

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162 Statement of claim paragraphs 21, 22, 23.

Barrett Fuller as part of a team of specialists, each of whom brought to bear on the design its own individual specialty skill. These individual skills included those of checking, querying and discussing the contribution of the other team members, insofar as this contribution impacted upon their own contribution. Many of the expert witnesses emphasised this fact. In a project of this kind the end product is not the result of individual experts working independently and without reference to the other team members. Nor is it correct to say that there is a bright line between the expertise of the different specialists. And so, for example, a structural engineer will normally have more than a passing familiarity with the principles of geotechnical engineering and vice versa. Likewise, as I have mentioned,[163] the designer will often derive assistance from the practical experience of the construction contractor. In short, the structure which is produced as a consequence of the efforts of the design and construction teams must be seen as the product of a truly team effort. The alternative, the case where the various specialists are seen to operate in self-contained boxes, as was pressed on behalf of certain of the parties in this case, is a recipe for disaster on any project. I do not find this to have been a feature of the Barwon Water project where, as Aquatec was entitled to expect, there was a good deal of interaction between the designers and between them and the construction people.

287 All of this makes it very difficult, in a contractual structure as the present, to spell out the existence of the duty of care owed by one team member to another, unless the subject matter is one that is outside the normal experience and expertise of the other. In a sense, it may be said in this case, as I do, that each generally relies upon the other and that each generally assumes responsibility for its own contribution. But the team structure brings into the relationship the possibility of checking mechanisms which are put in place to protect the ultimate client proprietor or, in some cases, those persons who may use the product of their efforts or who may be dependent upon it for its integrity.

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163 See above para [195].

288 In my consideration of these matters, I have made no mention of the contractual relationships which may bind, or underlie the bond between, the team members. These may, depending upon their terms, suggest the presence of a duty of care, as for example where they impose a responsibility,[164] or lead to the conclusion that no duty exists.[165] In this case there is no contract between Barrett Fuller and Aquatec. The contractual framework which is, however, in place between the team members points against the existence of the suggested duty of care. I have already made mention of the terms of the Minson Nacap sub-contract which demonstrate a lack of vulnerability on the part of Aquatec vis-à-vis Minson Nacap and to the circumstances which led to this.[166] The non-existence of vulnerability between these parties suggest a lack of vulnerability in Aquatec against the consequence of a lack of skill and care on the part of Barrett Fuller in providing the services for which Minson Nacap was contractually responsible to Aquatec.

289 All of these considerations, in my opinion, lead to the conclusion that the suggested duty of care in Barrett Fuller towards Aquatec should be rejected.

Claim Against Fisher Stewart

290 Next, it is said by Minson Nacap that Fisher Stewart owed Aquatec the duty of care. The suggested duty owed by Fisher Stewart towards Aquatec stands in a rather different light to those which I have been considering. Fisher Stewart is not a link in the contractual chain between Aquatec and TTW; it is the consultant of the proprietor, Barwon. It prepared the specifications; it administered the tender process; it dealt with the tenderers; and it negotiated on behalf of Barwon the terms of the head contract with Aquatec. It was accepted before me, too, that it had a design review function under its consultancy agreement with Barwon.

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164 See for example *Woolcock Street Investments Pty Ltd v CDG Pty Ltd* (2004) 216 CLR 515 at 559 [112] per McHugh J.

165 See for example *John Holland Construction and Engineering Pty Ltd v Majorca Project Pty Ltd* (1996) 13 BCL 235.

166 See paras [269]-[270] above.

291 The duty of care asserted against this party is a duty to Aquatec to exercise due skill and care and diligence in the execution and completion of its services. The facts pleaded by Minson Nacap as giving rise to this duty are the following:

> "27. At all material times:
>
> (a) Fisher Stewart knew or ought to have known:
>
> (i) That in April 1995 Sinclair Knight Merz Limited reported to the Colac Region Water Authority, inter alia, with respect to the ground conditions at the site of the Works at Apollo Bay ('the Apollo Bay Site');
>
> (ii) That Sinclair Knight Merz Limited then advised with respect to the Apollo Bay Site that water and ground water inflows would require control;
>
> (iii) That Sinclair Knight Merz Limited further advised of the apparent occurrence of an aquifer at the Apollo Bay Site;
>
> (iv) That MPA Williams & Associates Pty Ltd ('MPA Williams'), Consulting Geotechnical Engineers, had in February 1995 reported on the geotechnical and hydrological condition at the Apollo Bay Site;
>
> (v) That by the report of February 1995 MPA Williams had advised of the apparent occurrence of aquifers at the Apollo Bay Site;
>
> (vi) That the Apollo Bay Site required attention to be paid to the control of the inflow of water and ground water;
>
> (vii) That aquifers occurred at the Apollo Bay Site;
>
> (b) Fisher Stewart knew that the waste water treatment plants were to be constructed by Aquatec and Nacap for use by Barwon;
>
> (c) Aquatec relied on Fisher Stewart to:
>
> (i) Exercise due skill, care and diligence in the execution and completion of its services;
>
> (ii) Ensure that the design of the waste water treatment plants, was such that when constructed such plants would be suitable, appropriate, adequate and fit for their intended purpose;
>
> (d) Fisher Stewart knew or ought to have known the matters in (c);
>
> (e) In performing the Barwon/Fisher Stewart agreement, Fisher

Stewart assumed the responsibility to:

(i) Exercise due skill, care and diligence in the execution and completion of its assignment;

(ii) Ensure that the design of the waste water treatment plants was such that when constructed such plants would be suitable, appropriate, adequate and fit for their intended purposes;

(f) Fisher Stewart knew that in the event that it failed to do the things in (c) and (e) hereof it was likely that the construction of the waste water treatment plants would be defective and then Aquatec would suffer loss and damage."[167]

292 Fisher Stewart itself was not represented at the trial and presented no argument in resistance to the Minson Nacap allegations. The vagaries of s. 131 therefore mean that it is Minson Nacap which makes this complaint on behalf of Aquatec – a complaint which Aquatec does not itself assert and against a party which is not resisting it. I am not here concerned with any duty of care which Fisher Stewart might owe to its employer Barwon.

293 The first question is whether Fisher Stewart owed to Aquatec a duty of care to bring to its attention all of the geotechnical reports. There was a general consensus amongst the geotechnical expert witnesses that this would have been a prudent course. The question, however, is whether, in the circumstances, this counsel of prudence should be elevated to the level of a duty of care whose breach may found an action for damages.

294 Bearing in mind that the question must be examined from the point of view of Aquatec, the starting point must be its relevant contractual obligations and expectations. I have already referred to cl. G.4.3 of the specification[168] which obliges Aquatec to make its own evaluation of the geotechnical information supplied. At the time of tender, too, Aquatec enjoyed the protection of the latent conditions clause.[169]

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167 The names of the parties have been modified to accord with the terminology adopted in this judgment.

168 Set out at para [118] above.

169 Clause 12 of AS4300-1995.

295 In terms of the first head of breach, the duty may now be formulated with a little more particularity. It must be that Fisher Stewart owed to Aquatec, as tenderer or as the design and construct contractor, a duty to take reasonable care to bring all relevant geotechnical material to its notice. It is not an absolute duty to do this, for no one suggests such an obligation; it is a duty of care to do so. Furthermore, it is necessary to identify at which point this duty is said to arise. This is important because, prior to 18 September 1996 Aquatec was a prospective tenderer only. On that date it became a short-listed tenderer and was then provided with the tender documents including ten items of supplementary information which included some geotechnical information about the two sites. On 12 November 1996, the Aquatec tender was submitted. By that date, Aquatec had further information about the sites, including an inspection on 30 September. The state of knowledge of Aquatec about these matters continued to expand over the following months when the tender was accepted on 17 December 1996 and when the head contract was negotiated and entered into on 18 March 1997. Throughout this whole period it might have been possible for Aquatec to modify its design if circumstances demanded and, by the end of the period, it had acquired much geotechnical information about the two sites.

296 In these circumstances, it would be fanciful for me to impose on Fisher Stewart a tortious obligation of a kind which would support the alleged breach. In short, I express no view as to whether Fisher Stewart "at all material times... owed a duty of care to Aquatec to ... exercise due skill, care and diligence in the execution and completion of its services". In those terms the duty is far wider than the most optimistic view of the law would support, especially in the context of a claim for economic loss. Moreover, I would not conclude that there existed a duty of care of the more limited kind mentioned in the preceding paragraph. The terms of the specification and the circumstances which existed when Aquatec submitted its final design for approval by Fisher Stewart indicate that no such duty existed.

297 In any event, I find that no breach of any such duty has been made out. The evidence shows that Fisher Stewart had a summary brochure dealing with the subject matter of the Sinclair Knight Mertz report of April 1995 and that this was provided to Aquatec as part of the supplementary material in September 1996. This brochure does make mention of the area in which the Apollo Bay site was located. Readers were invited to purchase for $15 a copy of the Environmental Effects technical reports. It seems that Aquatec did not do so. Fisher Stewart did not at this stage have these reports and likewise did not have a copy of the MPA Williams report of 1995.[170] In these circumstances I do not find that it was in breach of its duty of reasonable care in not furnishing a copy to Aquatec.

Claim Against TTW

298 Finally, it is put by Minson Nacap that TTW owed to Aquatec a duty of care. Insofar as any such duty may, by the novation agreement, have been derived from Wynton Stone, it is not necessary that I say anything more about it. The liability of TTW cannot be greater than that of Wynton Stone which I found not to exist.

299 What is then put is that TTW owed to Aquatec a duty of care in the performance of its work after 6 May 1997. This work was performed pursuant to agreements with Montgomery Watson. The allegations of fact giving rise to the duty and the description of that duty are to be found in paragraphs 31 and 32 of the Minson Nacap s. 131 statement of claim.

> "31. At all material times after about 6 May 1997:
>
> (a) TTW knew that Aquatec had entered into the Head Contract which included the construction of the Civil Works and the owner of the waste water treatment plants was Barwon;
>
> (b) TTW knew that Minson Nacap had entered into the Sub-Contract design and commenced the civil works, and in turn Minson Nacap had engaged Montgomery to carry out the design and prepare drawings for the civil works;
>
> (c) TTW knew that the civil works it had been engaged to design were works that formed part of the subject of the Head Contract

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170 See para [120] above.

and the Sub-Contract;

(d) Aquatec knew that TTW had taken over the design of certain aspects of the civil works from Wynton Stone;

(e) Aquatec relied on TTW to:

(i) Exercise due skill, care and diligence in the execution and completion of the design;

(ii) Ensure that the design carried out by it was suitable, appropriate and adequate for the purpose of the waste water treatment plants, the subject of the Head Contract and the Sub-Contract;

(iii) Ensure that it would execute and complete the design in such a manner that the waste water treatment plants when constructed would be fit for their intended purpose; and

(iv) Carry out the design in a proper or professional manner;

(f) TTW assumed responsibility to:

(i) Exercise due skill, care and diligence in the execution and completion of the design;

(ii) Ensure that the design carried out by it was suitable, appropriate and adequate for the purpose of the waste water treatment plants, the subject of the Head Contract and the Sub-Contract;

(iii) Ensure that it would execute and complete the design in such a manner that the waste water treatment plants when constructed would be fit for their intended purpose; and

(iv) Carry out the design in a proper or professional manner;

(g) TTW knew that in the event it failed to do the things referred to in subparagraphs (d) and (f) hereof or any of those things, it was likely that Montgomery and then in turn Minson Nacap, Aquatec and Barwon would suffer loss and damage; and

(h) TTW carried out its design in the expectation that it would be paid for the same.

32. In the premises, at all material times, after 6 May 1997 TTW owed to Aquatec a duty of care:

(a) To exercise due skill, care and diligence in the execution and completion of its design;

(b) To ensure that the design carried out by it was suitable, appropriate and adequate for the purpose of the waste water treatment plants the subject of the Head Contract and Sub-Contract;

(c) To ensure that it would execute and complete the design in such a manner that the waste water treatment plants would, when constructed, be fit for their intended purpose; and

(d) To carry out the design in a professional manner."[171]

300 It will be recalled that the design was completed by 6 May 1997. It was approved by Fisher Stewart on 18 April and it remained only to issue the drawings for construction, which was done on 8 May 1997. The thrust of the allegation against TTW, then, related to its inspections of the sites and its advices following the slips at Apollo Bay in May and July 1997. What is here contended for is that, in responding to these incidents, TTW owed to Aquatec a duty to do so with due care.

301 It is difficult to approach this question in the abstract – without regard to the breaches which are alleged and the losses which are said to flow from them. At the time of the two slips, the design was defective but, it seems, Mr Sloggett did not appreciate this. As an employee of TTW, he was required by Montgomery Watson to form an opinion as to the cause of the slips at Apollo Bay and as to the steps to be taken by Minson Nacap to remedy the situation. In the circumstances of this case, it is put that he was in breach of duty in not realising that the slips were the product of his design deficiencies with the consequence that he did not revisit the original design and that, had he done so, he would have discovered these deficiencies. The consequence to Aquatec of his failure to do so is that Aquatec pressed on with the construction work for some months, or more correctly, that Aquatec took no step immediately following May or July to stop the construction.

302 Notwithstanding that there are a number of steps between the response to the slips and the loss of Aquatec, I accept that the loss was reasonably foreseeable by Mr Sloggett. Of the other salient features mentioned in the cases, I would accept that

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171 The names of the parties have been modified to accord with the terminology adopted in this judgment.

TTW, through Mr Sloggett, assumed responsibility to Aquatec for his services. While it is correct to say that the response of TTW to the slips was in each case a response which had been discussed with the Minson Nacap personnel involved in construction, it was a response which was that of Mr Sloggett. Unlike the original design process, however, the events of May and July were not handled as part of a broader collaborative process. When the slip occurred, Mr Sloggett was called in and his recommendation was given to and, not surprisingly, acted upon by the Minson Nacap construction personnel. Furthermore, the nature of Mr Sloggett's design response was such as involved specialist expertise beyond that available to Minson Nacap or Aquatec. Insofar as the criticism is that of failing to see the slips as indicative of a fundamental design problem, the matter is even further removed from the everyday experience and expertise of a construction contractor or a generalist engineer. This affects the vulnerability of Aquatec. I conclude that TTW did owe to Aquatec a duty of care, not in the terms of that pleading, but in a duty of care to make its inspections, evaluations and recommendations with due care.

303 This said, I find no breach of that duty. I refer to my findings of fact on these matters and to my conclusion that TTW was not in breach of its contract with Montgomery Watson.[172] These findings of fact lead me to the conclusion that the suggested breaches of duty by TTW or Mr Sloggett have not been made and I so conclude.

THE MINSON NACAP NEGLIGENCE CLAIMS

304 For the purposes of s. 131 apportionment, the present allegation of negligence is, primarily, that of Montgomery Watson, since it is against Montgomery Watson that Minson Nacap seeks relief. Nevertheless, there are allegations by other parties of a breach of duty of care owed to Minson Nacap.

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172 See paras [241]-[248] above.

305 The duties of care owed to Minson Nacap are a little difficult to identify because the pleadings are not altogether clear. Only Montgomery Watson and TTW[173] assert such a duty of care. Montgomery Watson alleges that Wynton Stone and/or TTW,[174] Barrett Fuller[175] and Fisher Stewart[176] owed to Minson Nacap a duty of care, but in its pleading the factual basis for this conclusion is not readily apparent. This is because the allegation is rolled up with a general allegation that each of those parties owed to Montgomery Watson, Barwon, Aquatec and Minson Nacap a duty of care to comply with the provisions of the agreement to which each was a party and "to do the things they [it] assumed responsibility for".[177]

306 The TTW statement of claim implicitly alleges duties of care owed to Minson Nacap by Wynton Stone,[178] Barrett Fuller,[179] and Fisher Stewart.[180] This is done in each case by the rather unsatisfactory procedure of picking up and adopting paragraphs of Minson Nacap's now long superseded statement of claim of 14 May 2003.

307 Notwithstanding this, it is necessary that I consider in turn whether a duty of care is owed to Minson Nacap by each of Wynton Stone, Barrett Fuller, Fisher Stewart and TTW and whether this duty has been breached. In dealing with these matters, I adopt the principles of law which I have set out above with respect to the Aquatec negligence claims. Nevertheless, the relationship of each of the suggested tortfeasors is that between it and Minson Nacap, not between it and Aquatec. It is to these relationships that I now turn, using my conclusions in the Aquatec negligence claim as a convenient starting point.

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173 It may however be implicit in paragraph 10 of the Barrett Fuller statement of claim dated 12 December 2005.

174 Paragraph 35.

175 Paragraph 41.

176 Paragraph 46.

177 Paragraphs 35 (Wynton Stone and TTW) and 41 (Barrett Fuller). The duty owed to Minson Nacap by Fisher Stewart is expressed with more particularity in paragraph 46.

178 Paragraph 32(b).

179 Paragraph 36(b).

180 Paragraph 37(b).

Claims Against Wynton Stone

308 In the Montgomery Watson statement of claim the duties owed to Minson Nacap by each of Wynton Stone, Barrett Fuller, Fisher Stewart and TTW are pleaded separately. In the case of Wynton Stone the facts asserted as giving rise to the duty are the following:

> "34. At all material times from in or about October 1996:
>
> (a) Wynton Stone assumed responsibility to Montgomery Watson to:
>
> (i) exercise due skill, care and diligence in carrying out the initial Wynton Stone Services and/or the Wynton Stone Services and/or the further Wynton Stone Services.
>
> (ii) ensure that the structural design and drawings for the Minson Nacap/Montgomery Watson civil works were suitable, appropriate and adequate for the purpose of the waste water treatment plants;
>
> (iii) carry out the initial Wynton Stone Services and/or the Wynton Stone Services and/or the further Wynton Stone Services in a proper and professional manner;
>
> (b) Wynton Stone knew if it failed to do any of the things referred to in (a) hereof, it was likely that Barwon, Aquatec, Minson Nacap and/or Montgomery Watson would suffer loss and damage.
>
> PARTICULARS
>
> Wynton Stone's assumption of responsibility to Montgomery Watson referred to in sub-paragraph (a) above is to be implied from the following:
>
> (a) the matters referred to in paragraphs 31A to 31U above and the particular thereto;
>
> (b) its attendance at various meetings and site visits in connection with the structural design of the aeration tanks for the treatment plants;
>
> (c) its undertaking of, checking and approval of the design and 'for construction' drawings of the aeration tanks for the treatment plants (TW.0011.0063);
>
> (d) its rendering of invoices to Montgomery Watson in connection therewith and its acceptance of payment from Montgomery

Watson thereof."[181]

309 On their face, these allegations cannot give rise to a duty of care in favour of Minson Nacap. The case, as presented, however, suggests that the duty arose from the assumption by Wynton Stone of responsibility to Minson Nacap and its foreseeability of the loss of Minson Nacap.

310 The relationship between Wynton Stone and Minson Nacap is similar to that between Wynton Stone and Aquatec, but for the fact that there was one less contractual link between them. For the present purposes, however, the evidence leads me to the same conclusions. I would not find in the present circumstances that the elements of reliance and vulnerability are present. I find no duty of care.

Claims Against Barrett Fuller

311 The claim relied upon against Barrett Fuller are not quite the same in Montgomery Watson's statement of claim:

> "40. At all material times:
>
> (a) Barrett Fuller assumed responsibility to Wynton Stone and Montgomery Watson to:
>
> (i) exercise due skill, care and diligence in carrying out the Barrett Fuller Services;
>
> (ii) ensure that its investigations, reports and advices were carried out and prepared in a proper and professional manner;
>
> (b) Barrett Fuller knew if it failed to do any of the things referred to in (a) hereof, it was likely that Barwon, Aquatec, Minson Nacap, Montgomery Watson and/or Wynton Stone would suffer loss and damage."[182]

312 Again, I pass over the failure to allege an assumption of responsibility to Minson Nacap.

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181 The names of the parties have been modified to accord with the terminology adopted in this judgment.

182 The names of the parties have been modified to accord with the terminology adopted in this judgment.

313 The relationship between Minson Nacap and Barrett Fuller in terms of the contractual chain and the roles played by them in the project are not significantly different from that between Barrett Fuller and Aquatec. For the reasons set out above[183] with respect to the Aquatec negligence claim, I find no duty is owed to Minson Nacap by Barrett Fuller.

Claims Against Fisher Stewart

314 In the case of the supposed Minson Nacap claims in negligence against Fisher Stewart, the allegations in the Montgomery Watson statement of claim are exceedingly deficient. The pleaders assert in paragraph 44 the consultancy agreement between Barwon and Fisher Stewart and, in paragraph 45, that Fisher Stewart assumed responsibility to Barwon under that agreement to many things. Then follows a plea of a duty of care which commences as follows:

> "46. In the circumstances, Fisher Stewart owed Barwon, Aquatec, Minson Nacap, Montgomery Watson and Barrett Fuller, duties of care to: …"

Then follows a litany of suggested duties.

315 Passing by this pleading difficulty, the case against Fisher Stewart appears to depend upon the foreseeability by it of loss to Minson Nacap, the assumption of responsibility to Minson Nacap by Fisher Stewart and the reliance by Minson Nacap upon Fisher Stewart. For reasons similar to those which I have set out in my consideration of the Aquatec negligence claim,[184] I find no such assumption of responsibility or reliance. There is no duty of care.

Claims Against TTW

316 The plea here is contained in paragraph 34A of the Montgomery Watson statement of claim:

> "34A. Further or alternatively, at all material times from on or about 6 May 1997:
>
> (a) TTW assumed responsibility to Montgomery Watson to:

183 See paras [284]-[289] above.
184 See paras [290]-[297] above.

(i) exercise due skill, care and diligence in carrying out the Wynton Stone Services and the TTW further works;

(ii) ensure that the structural design and drawings for the Minson Nacap/Montgomery Watson civil works and the TTW further works were suitable, appropriate and adequate for the purpose of the waste water treatment plants;

(iii) carry out the Wynton Stone Services and the TTW further works in a proper and professional manner;

(b) TTW knew if it failed to do any of the things referred to in (a) hereof, it was likely that Barwon, Aquatec, Minson Nacap and/or Montgomery Watson would suffer loss and damage."[185]

317 I omit the particulars which do not shed further relevant light upon these allegations. The allegation of the duty in paragraph 35 then asserts that TTW owed a duty to Montgomery Watson, Barwon, Aquatec and Minson Nacap.

318 Returning to the substance of the allegations, I understand the pleaders to be concentrating attention on the conduct of TTW after 6 May 1997. As with the other Minson Nacap negligence claims, I do not see a relevant distinction between the relationship between TTW and Aquatec and that between TTW and Minson Nacap. For the reasons set out in my consideration of the Aquatec negligence claims[186] I conclude that TTW did owe to Minson Nacap a duty of care in the same terms as that owed by it to Aquatec. I find, however, no breach of that duty.

THE MONTGOMERY WATSON NEGLIGENCE CLAIMS

319 I have been unable to find in any current pleading other than that of Montgomery Watson itself[187] and TTW an allegation that any party owed to Montgomery Watson a duty of care or the basis of such an allegation. TTW[188] alleges that Aquatec,[189] Minson Nacap,[190] Wynton Stone,[191] Barrett Fuller[192] and Fisher Stewart[193] are liable

185 The names of the parties have been modified to accord with the terminology adopted in this judgment.
186 See paras [298]-[303] above.
187 Fifth amended statement of claim, 8 December 2005.
188 Amended statement of claim, 14 November 2005.
189 Paragraph 33(b).
190 Paragraph 34(b).
191 Paragraph 32(c).
192 Paragraph 36(c).

to Montgomery Watson and it does so by picking up and adopting paragraphs from Montgomery Watson's now long superseded second amended statement of claim of 1 August 2003.

320 In its current statement of claim Montgomery Watson[194] includes a rolled up series of allegations that each of Minson Nacap,[195] Wynton Stone,[196] TTW,[197] Barrett Fuller,[198] and Fisher Stewart[199] owed to it a duty variously described and that each of them breached that duty, but this goes no further in the sense that it does not lay the foundation for a claim of damages by Montgomery Watson against any of them other than Wynton Stone and TTW. Having regard to the requirements of s. 23B of the *Wrongs Act* and s. 131 of the *Building Act*, a breach of duty to Montgomery Watson cannot found any claim for contribution or apportionment by that party.

321 It was put in support of the existence of the duty of care owed by Wynton Stone to Montgomery Watson that it is possible for this to co-exist with the contractual duty. I accept that this may be so. Given the fact, known to both Wynton Stone and Montgomery Watson, that the latter had no expertise in the structural and technical aspects of the design and that Wynton Stone's Mr Sloggett assumed this responsibility, I would be prepared to conclude that Wynton Stone owed to Montgomery Watson a duty in tort to perform the Wynton Stone work with due skill and care. The fact that the designs were to pass to Minson Nacap, Aquatec and Fisher Stewart does not affect this duty. Furthermore, my findings as to the design deficiencies lead to the conclusion that Wynton Stone was in breach of this duty. Accordingly, a negligence claim has been made out. The difficulty, however, is that this liability for negligence has been released by cl. 2 of the deed of novation.

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193 Paragraph 37(c).
194 Fifth amended statement of claim, 8 December 2005.
195 Paragraph 23(b).
196 Paragraph 31W, 31Y and 35.
197 Paragraph 35.
198 Paragraph 41.
199 Paragraph 46.

322 The duties alleged by TTW to be owed to Montgomery Watson raise rather different issues. Notwithstanding the allegation in paragraph 33(b) that Aquatec is jointly or severally liable for damages in relation to Montgomery Watson's claim by reason of paragraphs 2, 12 -15 and 49 of the second Montgomery Watson statement of claim, it derives no support from the matters alleged in those pleadings. What might be said here is that Aquatec owed to Montgomery Watson a duty to check the design work carried out by Montgomery Watson or by those for whom it was responsible. But this cannot be correct. In an indirect way, Aquatec had engaged Montgomery Watson as an expert structural designer to undertake the design of the tanks. It can hardly be said that, in these circumstances, Aquatec assumed the relevant responsibility to verify the correctness of the design undertaken by this expert or that Montgomery Watson had any vulnerability to the consequences of a breach by Aquatec for such a duty. Much the same might be said of the suggestion that Minson Nacap owed a duty of care to Montgomery Watson. I do not accept that the suggested duties of care were owed by Aquatec or Minson Nacap to Montgomery Watson.

323 The other party which is said to owe to Montgomery Watson a duty of care is Fisher Stewart. This duty is said to concern its obligation to make available to Montgomery Watson geotechnical information in its possession and its obligation to check the Montgomery Watson design. Again, for reasons which I have set out,[200] I am unpersuaded that in the present contractual context, such a duty exists.

324 Finally, it is said that Barrett Fuller owed Montgomery Watson a duty of care. This is said to rest upon Barrett Fuller's assumption of responsibility to exercise due care. I do not conclude that Barrett Fuller assumed that responsibility to Montgomery Watson. Its dealings were with Wynton Stone whose Mr Sloggett was apparently well-qualified to deal in a critical way with any recommendations of Barrett Fuller, as indeed he did. The interposition of what Wynton Stone was therefore sufficient to remove any Montgomery Watson vulnerability and to defeat the suggested duty of

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200 See paras [290]-[297] above.

care.

THE WYNTON STONE NEGLIGENCE CLAIMS

325 A duty of care is alleged by Montgomery Watson[201] and by Wynton Stone itself[202] to be owed to Wynton Stone by Barrett Fuller. In the case of Montgomery Watson a breach of duty is alleged in paragraph 42 but no loss is alleged and no damages are sought against Barrett Fuller. With respect to the Wynton Stone plea it is alleged that Barrett Fuller breached the duty but this, I was told in final address, was directed only to a s. 131 claim for apportionment. This, therefore, can lead nowhere because, for the purposes of such a claim, the duty owed by Barrett Fuller to Wynton Stone and its breach can be relevant only to a claim where Wynton Stone is the plaintiff and Barrett Fuller one of a number of defendants liable to Wynton Stone in damages. This is not a contention which Wynton Stone has an interest in advancing. Not surprisingly, counsel on its behalf did not urge me to dilute, pursuant to s. 131, an award to damages to which it might be entitled against another defendant. I will not burden this judgment with a consideration of sterile issues.

THE BARRETT FULLER NEGLIGENCE CLAIMS

326 There is little interest in any party alleging that a duty of care is owed to Barrett Fuller. Indeed, the only party making such an allegation is Montgomery Watson which includes Barrett Fuller among the list of parties whom Fisher Stewart owed a duty of care to provide geotechnical information and to ensure that the design was appropriate.[203] I reject that such a duty is owed for the reasons already given.

THE TTW NEGLIGENCE CLAIMS

327 In its amended statement of claim filed on 14 November 2005, TTW brings against Barrett Fuller a claim in negligence for damages. The duty here alleged is that Barrett Fuller should perform its obligations under its agreement with TTW or with Montgomery Watson made on or about 5 May 1997. These were to give geotechnical

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201 Fifth amended statement of claim, paragraph 41.
202 Fourth further amended statement of claim, paragraph 22.
203 Statement of claim, paragraph 46.

advice following the slippage on or about 5 May and again to give certain advice on or about 22 July 1997 following the further slippage about that date.[204] Counsel for Barrett Fuller accepted that his client owed to its client TTW a duty of care which is concurrent with its contractual duty, but no more. I agree. I have already set out the facts concerning these two incidents of slippage. In each case Barrett Fuller was requested to give specific advice and it did so. This limited advice is not subject to criticism. It is said on behalf of TTW, further, that Barrett Fuller should have put in question the design assumptions and that, by not so doing, TTW lost the opportunity to review and modify the design of the tanks. The evidence as to this was essentially that of Mr Sloggett who was the person at TTW who, it would seem, was the man to seize the opportunity. He was asked to assume that the embankments were unstable and should be redesigned to ensure their long-term stability. In such an event he responded that he would, following the May slippage, have modified the design to flatten the slope or to provide a structural lining. He was then asked to assume that he was advised by Barrett Fuller that under-slab drainage should be provided. His response was that he would have provided it. As counsel for Barrett Fuller pointed out, nothing of this was put to his witnesses or indeed to any witnesses. Quite frankly, I do not accept Mr Sloggett's evidence as to this. His behaviour during the months that followed suggests the contrary. To my mind, he is a man who would have been very reluctant to make the design changes which he described. He would have known that if he had confessed to the deficiencies in his work, Montgomery Watson's retainer of TTW would in all probability have been terminated. Mr Sloggett would have been resistant to this and loath to expose his errors to his new employer. In my opinion he would have sought to blame the problem on construction rather than on his own design. In any event, there is to my mind no warrant for the assumptions which were put to him. Barrett Fuller was not at the time of the slips asked to express an opinion on those matters and I have found that the two slips did not provide a reason for Barrett Fuller to have general doubts about the long-term stability of the designed embankments or the insufficiency of the

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204 Paragraph 40ZD.

drainage at Apollo Bay.[205] I find no breach of duty, so that the Wynton Stone claim fails.

328 Further, it cannot be credibly asserted that the losses alleged by TTW, which include the amount of its liability to Montgomery Watson and its own costs of this litigation, would have been avoided had the design been modified. At best all that might be said at this stage is that the losses of TTW would probably have been much less than those which it now faces. The question of quantification of these losses was taken out of this trial at the request of counsel for TTW. In any event, given my findings that Barrett Fuller is not guilty of the negligence alleged and further that, on the probabilities, no modification of the design would have been made, the question of loss does not arise.

THE WYNTON STONE TRADE PRACTICES CLAIM

329 In its statement of claim Wynton Stone alleges against Fisher Stewart that it was in breach of its contract with Barwon by failing to include in the tender documents the 1995 MPA Williams report and the Sinclair Knight Merz report or to disclose their contents to Aquatec and to all parties to this proceeding other than TTW. Further breaches of this contract were constituted by its recommendation to Barwon that it accept the structural design prepared by Wynton Stone. Finally, it is said to be a breach of its retainer that it permitted the works to be carried out with a substantial list of defects.[206] I make no comment about the correctness of these allegations or about the right of Wynton Stone as a stranger to the contract between Barwon and Fisher Stewart to make them. Then it is said that these matters amount to a breach of a duty of care owed by Fisher Stewart to Barwon. Again, I make no comment of these matters.

330 I pass over paragraph 34 to come to paragraph 35 which alleges that the failure of Fisher Stewart to disclose the two reports constitutes misleading and deceptive conduct contrary to s. 52 of the *Trade Practices Act* which conduct caused loss to

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205 See paras [244]-[245] above.

206 Paragraph 32.

Barwon. Thus far, these allegations are beside the point since Barwon does not seek damages against Fisher Stewart and Aquatec does not seek apportionment. Then follows the following bald paragraph:

> "37. Further, or in the alternative, if loss has thereby been caused to Wynton Stone by way of a liability to pay damages to Barwon, Aquatec, Minson and/or Montgomery Watson in this proceeding, Wynton Stone is entitled to damages from Fisher Stewart pursuant to section 82(1) of the TPA."

331 I will not dwell long on this allegation. It was never explained in evidence or argument how the failure to disclose the contents of these reports might amount to misleading and deceptive conduct. No obligation to disclose them was established; the specifications suggest that the onus lies on Aquatec to investigate and satisfy itself about soil conditions. This is more so since the latent conditions clause of AS4300-1995 was deleted. The reliance of Wynton Stone upon this conduct was never demonstrated. In final submission it was put on behalf of Wynton Stone that, if the reports had been made available, the designer would have been alerted to the prospect of hydrostatic uplift at Apollo Bay. In these circumstances, it was said, I should conclude that, as a matter of probability, the sloping sides design would have been abandoned in favour of the conforming vertical wall design.

332 A difficulty with evaluating this submission is that Fisher Stewart did not participate at the trial so I do not know what answer it might have made. Its employees were called however as witnesses by Barwon. My attention was not drawn to their responses when these matters were put to them and, indeed, I do not recall that they were in fact put to them. Nor were these matters raised with Mr Sloggett or any of the experts. From my reading of the two reports and my assessment of the position as it stood in early 1997, I am not satisfied that the cause of action is made out.

THE SECTION 131 APPORTIONMENT CLAIMS

333 The question of the apportionment of responsibility under the *Building Act* 1993 between the defendants underlay much of this trial. A significant object of the *Building Act* when it was enacted in 1993 was expressed in s. 4(g) as follows:

"To reform aspects of the law relating to legal liability in relation to building matters."[207]

Part 9 of the Act deals with liability in three divisions, the second of which is entitled "Limitation of Liability". In this division was[208] found ss. 131, 132 and 133 which were in the following terms:

"**131. Limitations on liability of persons jointly or severally liable**

(1) After determining an award of damages in a building action, the court must give judgment against each defendant to that action who is found to be jointly or severally liable for damages for such proportion of the total amount of damages as the court considers to be just and equitable having regard to the extent of that defendant's responsibility for the loss or damage.

(2) Despite any Act or rule of law to the contrary, the liability for damages of a person found to be jointly or severally liable for damages in a building action is limited to the amount for which judgment is given against that person by the court.

132. Rights to contribution

Despite anything to the contrary in the **Wrongs Act 1958**, a person found to be jointly or severally liable for damages in a building action cannot be required to contribute to the damages apportioned to any other person in the same action or to indemnify any such other person in respect of those damages.

133. Operation of Wrongs Act 1958

Except as provided in section 132, nothing in this Division affects the operation of Part IV of the **Wrongs Act 1958**."

334 These provisions had the effect, where they applied, of changing the common law whereby a person, D1, jointly liable with another, D2, was subject to judgment for the full amount of the damages caused as a result. If the plaintiff recovered payment from D1, then the only recourse of D1 was to seek contribution from D2 under s. 23B of the *Wrongs Act*. The evident intent of these sections was to render D1 and D2 each liable only for that part of the plaintiff's loss for which each was responsible. The

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207 This was amended in 1996 to include, as the subject of the intended reform, also plumbing matters.

208 These sections were repealed as from 1 January 2004 by the *Wrongs and Limitations of Actions Acts (Insurance Reform) Act* 2003.

common law principle did not, of course, apply where two defendants were severally liable, for in such a case, each would be liable for the damages which flowed from its own wrongful act. Nevertheless, the intent of the legislation appears to be that, even in such a case, the Court should make an assessment of the responsibility of those defendants and to give judgment accordingly.

335 And so, in the present case, it is contended on behalf of Minson Nacap, as defendant to the claims of Aquatec, that it should not be liable to suffer judgment in favour of Aquatec for the total amount of Aquatec's loss; this loss should be apportioned, according to their responsibility for it, between Minson Nacap, Montgomery Watson, Wynton Stone, Barrett Fuller, Fisher Stewart and TTW.

336 And Montgomery Watson, as defendant to the claim of Minson Nacap, also contends that the loss of Minson Nacap should be apportioned, according to their responsibility for it, between it, Montgomery Watson, Aquatec, Wynton Stone, Barrett Fuller, Fisher Stewart, and TTW. A like contention is also made by Wynton Stone in respect of the loss of Montgomery Watson for which it, Wynton Stone, may be liable.

THE APPLICATION OF SECTION 131

337 It has become apparent in the course of this trial that there are great difficulties in construing this legislation as well as difficulties in its application. It was contended before me on behalf of Barwon and Aquatec, and even Minson Nacap, that, as a matter of construction, the statute has no application to this case so that apportionment should not occur. Counsel for Montgomery Watson and Wynton Stone, on the other hand, argued, that the provisions do apply. I should add that counsel for Minson Nacap said that, if the sections do apply to this case, contrary to their primary submission, their client would gratefully accept the benefits which they might confer upon it.

338 The arguments as to the applicability of s. 131 essentially came down to the question whether this proceeding or, more correctly, each of the claims within this proceeding for which apportionment were sought, is a "building action". This expression is defined in s. 129 as follows:

> "**129. Definitions**
>
> In this Division –
>
> '**building action**' means an action (including a counter-claim) for damages for loss or damage arising out of or concerning defective building work;
>
> '**building work**' includes the design, inspection and issuing of a permit in respect of building work."

It is convenient also to set out at this stage other relevant definitions in s 3 of the Act which definitions relate to the statute generally.

> "'**building**' includes structure, temporary building, temporary structure and any part of a building or structure."
>
> '**building work**' means work for or in connection with the construction, demolition or removal of a building."

339 The first issue is whether the tanks here in question are a building so that their design and construction is building work within the meaning of s. 129 . Counsel for Barwon who presented argument upon this point, notwithstanding that Aquatec accepted sole liability for the amount which Barwon now seeks against it, submitted that the meaning of "building" in the *Building Act* must be determined in the light of the provisions of the statute as a whole. They contended, first, that a building in this statute must be a structure for the construction of which a building permit is required under s. 16. They pointed out that Part 9 Division 2 deals not only with the apportionment of liability, but also creates a new limitations period for building actions. By s. 134 such an action cannot be brought more than 10 years after the issue of the occupancy permit in respect of the building work or, where no such permit is issued, after the date of the issue of the certificate of final inspection of the building work. In each case, time runs from the date of a stipulated event which, under the Act, depends upon the issue of a building permit. Aquatec supported this

submission. The primary position of Minson Nacap was also to support it.

340 It was put that, where a building permit is obtained under s. 16, the permit must specify whether an occupancy permit is required.[209] Where it is required, it will be issued and time for the purposes of s. 134 runs from the date of its issue. Where it is not required, the relevant building surveyor must issue a certificate of final inspection.[210] In such a case, time, for the purposes of s. 134, runs from the date of its issue. In either of the stipulated events, the starting point is the building permit. The section does not make provision for the running of time where the litigation concerns work for which neither an occupancy permit nor a certificate of final inspection is required to be issued. It was put that the rejection of this submission would have the consequence that, for a building action relating to building work for which s. 16 did not require a permit, there would be no limitations period under s. 134, for neither of the trigger events would occur. This, it was said, was a consequence which Parliament could not have intended. Accordingly, it was put, if no building permit for work is required, then the work cannot be building work for the purposes of s. 134, and a proceeding arising out of such work cannot be a building action.

341 The response to this offered on behalf of Montgomery Watson and, presumably, Wynton Stone, was that the words of the definition of building action in s. 129 should be given their full and ordinary meaning; "building work" should not be read down by reference to the permit provisions of s. 16. Litigation in building actions would be subject to the new s. 134 limitation period, where an occupancy permit or certificate of final inspection was issued, and, if not, the ordinary limitations period prescribed in the *Limitations of Actions Act* 1958 would apply. The consequence of this, it would seem, would be that, for limitations purposes, there would be the following classification of proceedings –

(a) building actions within the meaning of s. 129, to which s. 134 applied;

(b) building actions within the meaning of s. 129, to which s. 134 did not apply;

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209 Section 21.

210 Section 38.

and

(c) litigation which does not fall within the definition of building action.

In the case of proceedings described in part (b) and part (c) above, the general limitation periods contained in the *Limitations of Actions Act* would continue to apply. There is also a fourth possibility:

(d) building actions within the meaning of s. 129 but where, for some reason, neither an occupancy permit nor a certificate of final inspection was in fact issued.

342 I am not in this proceeding concerned to reach any conclusions as to the application of various limitation periods to legislation of this kind and I do not do so.

343 The submission put on behalf of Barwon and others was that Parliament could not have intended such a complicated limitations regime. The simple answer they offered was, as I have mentioned, that s. 134, and indeed the whole of Division 2, applied only to litigation concerning building work for which a permit was, under s. 16, required. This work essentially concerned the construction, demolition or removal of habitable buildings. Liability for damages in litigation concerning other building work fell to be determined otherwise than under Division 2.

344 This construction, it was pointed out by counsel on behalf of Montgomery Watson and Wynton Stone, raises its own difficulties. Under s. 16 a permit is required for all building work as defined in s. 3 other than that exempted. I was referred to the Building Regulations 1994 where these exemptions are set out in reg 1.6. It was first put in reliance upon this regulation that, since the works there described had to be exempted, it must follow that, without that exemption, they would be included in the definition of building in s. 3. And since these exemptions included all manner of non-habitable works, it must be that the s. 3 definition of building cannot be limited to habitable works. Second, it was argued that the application of s. 16 to works was a very uncertain and unsatisfactory basis for identifying the application of Division 2

because the regulations were liable to and have been the subject of frequent change. In these circumstances, as at what stage in the litigation is the status of the building to be addressed? Is it when judgment is given, when the claim is brought or, perhaps when the cause of action arose?

345 Counsel for Barwon tendered in evidence the building permit applications for the plants which are the subject of this litigation. These applications are for a permit for the plant rooms only and not for the tanks. Counsel informed me that this was because the tanks were not seen by Barwon or, it would seem, by the municipal surveyor as buildings. This is, of course, an indication as to how the legislative regime is understood by those who participate in it; it is not determinative.

346 I now return to the place where I must start – the text of the statute. The definition of "building" in s. 3 is an inclusive one. In its ordinary sense, the word refers to structures which are enclosed and which accommodate or are used by people. In the Macquarie Dictionary it is defined as "things which are built or constructed". The definition in the Oxford English Dictionary is in these terms: "that which is built; a structure, edifice: now a structure of the nature of a house built where it is to stand". The statutory enlargement in s. 3 extends the meaning to include a "structure". Nearly 40 years ago in *O'Brien v Shire of Rosedale*[211], Gillard J identified three characteristics which are associated with a structure in popular usage. First, it is the product of the assembly of a number of component parts to produce some thing which is different from those parts and which is of practical value. Second, this thing is commonly attached to the land on which it is erected, but this is not a necessary characteristic. Third, it has a degree of permanence. I have been referred by counsel for Wynton Stone to a number of other authorities as to the meaning of these terms. While some of them depend upon their statutory context, none would gainsay the analysis of Gillard J which I respectfully adopt. Indeed, they include cases which have concluded that the word "structure" covers a 4m high reinforced concrete wall.[212] It follows, then, that the tanks here in question are structures and

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211 [1969] VR 112 at 116-7.

212 *Ulmarra Council v Clarence River County Council* (1998) 101 LGERA 374.

therefore fall within the definition of building in s. 3.

347 I have not overlooked the fact that in *Boral Resources (Vic) Pty Ltd v Robak Engineering and Constructions Pty Ltd*[213] the structures which were said to be defective were a municipal swimming pool and an elevated water storage tank. No point appears to have been taken that these were not buildings, and I do not take the silence of the Court of Appeal on this matter as a factor to be considered here.

348 I was referred, also, to the decision of this Court in *Australian Rail Track Corporation Ltd v Leighton Contractors Pty Ltd*[214]. This case concerned an application by a defendant to join other defendants to the plaintiff's proceeding. The proceeding was an unusual candidate for characterisation as a building action. The plaintiffs as owners of a railway track sued Leighton who was constructing a viaduct over the railway, alleging negligence when a beam collapsed blocking the track for some eight days. They said that, as a consequence, they suffered economic loss. Leighton sought to join as defendants for the purposes of a s. 131 apportionment, those parties who had an involvement in the construction project and whose negligence, Leighton contended, made them also liable for the plaintiff's loss. Bongiorno J refused the joinder on the basis that s. 131 had no application. His Honour reached this conclusion for three independent reasons: the viaduct was not a building within the meaning of s. 3[215] so that its construction was not building work within the meaning of s. 3 or s. 129; second, the claim by the plaintiffs, who were only incidentally or indirectly affected by the works could not be characterised as a building action, for it was not a dispute between a building owner and a building practitioner inter se[216]; and, third, it was by no means clear that the collapse of part of the construction whilst unfinished fell within the expression "defective building work" in the definition of building action in s. 129[217].

349 It is his Honour's first reason which is of present interest. Counsel for the plaintiff

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213 [1999] 2 VR 507.
214 [2003] VSC 189.
215 [2003] VSC 189 at [15].
216 [2003] VSC 189 at [22].
217 [2003] VSC 189 at [24].

had pressed his Honour with a statement appearing in the Explanatory Memorandum to the statute, when it was but a bill, as reflecting the intention of the drafter. This passage, which was directed to cl. 3, the definition provision, was in these terms:

> "The definition of building is not intended to include structures which are not in the nature of buildings such as railway viaducts and roads."

This passage was repeated by the Minister in his second reading speech. His Honour felt constrained by this to conclude that the road overpass was equally not a building within the meaning of s. 3.

350 The difficulty with this, for my purposes, is that the words of the statute do not reflect this intention; rather the contrary. The scheme of the definition is to start with the word "building" and then to state that it includes other things of which one is "structure". In ordinary usage, "structure" has a wider meaning than "building". The express inclusion of "structure" within the statutory meaning of building must therefore serve to enlarge the meaning of "building". The observation in the Explanatory Memorandum inverts this: it says that the word "structure" is to be read down so that it is limited by the word "building". To put the matter another way, in normal speech, every building falls within the meaning of structure. To read down structure in the definition so that it has no wider meaning than building, has the consequence that the word "structure" contributes nothing to the definition at all.

351 I conclude, therefore, that, if the tanks presently in question fall within the meaning of structure, as I think they do, then they are buildings.

352 The second matter as to the applicability of s. 131, but a matter which was only of a peripheral issue in this case, is whether the present claim is one for damages as is a requirement of the definition of building action in s 129. While it is common enough in building cases for the claimant to seek an award of damages for breach of contract

or for breach of some statutory or other legal obligation, it is frequently the case that the claim is otherwise, for example, a money claim. In this case, the primary claim of Barwon against Aquatec, as originally pleaded, was for the sum payable under certificate 16. Then a further claim was added for damages for breach of contract. This further claim is a claim which falls within the definition of building actions. The settlement, then, poses difficulties for the application of the statute because, under its terms, judgment will be given, if at all, for an agreed sum. I was not told whether this represented a compromise of the money claim or of the damages claim. It would therefore seem that, prior to entering this judgment I will not have determined to make an award of damages against Aquatec. Accordingly, s 131 can have no application. It may be thought surprising that the parties' settlement could in this way avoid the policy underlying s 131, but it will be recalled that, under the settlement Aquatec is assuming sole liability to pay the amount agreed. It may be supposed, that if Aquatec is content that this be so, the defendants which it joined to share that liability cannot complain that this removes from them the risk that each might have to bear its own share of this sum.

353 It is, however, clear enough that the claim of Aquatec against Minson Nacap seeking damages for breach of contract, where the breach alleged was its performance of defective work, including design work, falls within the statutory definition of building action. So, too, does the claim of Minson Nacap against Montgomery Watson and the claim of Montgomery Watson against Wynton Stone.

THE SCOPE OF S. 131

354 It is convenient at the outset to examine generally the meaning and operation of s. 131 as it might affect the various claims for apportionment in this proceeding. It has a number of features, some of which raise difficulties which I must address.

(1) The section presupposes the existence of a party seeking a judgment in damages. This is because the joint or several liability of the defendants must be a liability towards someone. This person will normally be the plaintiff in the building action or a counterclaimant. For convenience I shall refer to this

party as the plaintiff (P).

(2) The Court of Appeal in *Boral Resources (Vic) Pty Ltd v Robak Engineering and Constructions Pty Ltd*[218] rejected a submission that an apportionment order might be made between a defendant (D1) to P's claim and a third party. I do not read the judgments in that case to preclude the application of the statutory regime where a defendant sues a number of third parties, for in such a case the third parties are in truth defendants to the defendant's claim. Although the definition of "building action" in s. 129 mentions only counterclaims in addition to actions, it would be difficult to suppose that Parliament intended that the redress would be so limited. If, as in the present case, a defendant to counterclaim sought against multiple third parties damages for loss or damage arising out of defective building work, it would defeat the purpose of the legislation if the old rule continued to apply so that each of the third parties was liable for the full amount of the damages awarded. Nor is it realistic to assume that this difficulty could be overcome by the defendant to counterclaim bringing a fresh action against the third parties who would then be defendants to this new action. In most cases the apportionment legislation confers no benefit on the plaintiff. It is unlikely, then, that a defendant to counterclaim would willingly expose itself to the risks attending apportionment and be ready to incur the extra costs of commencing a separate proceeding. I construe the word "defendant" in s. 131 as referring to any party who is a respondent to a claim in respect of which an award of damages in a building action is to be made. This construction is consistent with the views of Batt JA in the *Boral* case[219].

(3) Section 131 presupposes that P has suffered loss and damage. The proof of this will normally be a precondition to the determination of the Court to make an award of damages. Furthermore, the section requires the Court to determine the responsibility of D2 and other co-defendants which are jointly

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218 [1999] 2 VR 507.

219 At [10].

or severally liable with D1 in damages. I shall refer to this co-defendant or these co-defendants collectively as D2. I infer that the loss or damage of P which underlies the liability of D2 is the same loss or damage which is the basis of the proposed award of damages which is to be made in favour of P against D1.

(4) In this case the claims for apportionment are essentially contingent; most of the plaintiffs below Barwon in the contractual hierarchy will have suffered loss and damage only when and to the extent that judgment is against it at the suit of a plaintiff superior in the hierarchy and, further, that it has satisfied that judgment. For the most part, each of these plaintiffs sues the party below it in the hierarchy (D1), alleging breach of contract. D1, in turn, alleges against D2 that it is liable to P in negligence. But P's cause of action in negligence against D2 is not complete until loss and damage has been suffered by P so that, strictly speaking, D2 is not yet jointly or severally liable to P in damages.[220] I do not understand any party to have taken this point in this trial. This circle, however, might be broken by adopting the practical solution, as is done in contribution claims where such a claim may be made by a defendant who is only at risk of suffering loss and damage against a third party.[221]

(5) A further consequence of the fact that, in this case, the claims for apportionment are made in an hierarchical context, is that each must be determined in turn. This follows from the fact that the quantum of the judgment in damages which I may determine to award to P at each level will reflect the amount of the loss and damage suffered by P. This amount will, perhaps, include the quantum of the judgment awarded against P in its character as D1 or D2 in an earlier determination in this proceeding.

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220 *Van Win Pty Ltd v Eleventh Mirontron Pty Ltd* [1986] VR 484

221 *Port of Melbourne Authority v Anshun* (1981) 147 CLR 589 at 595, per Gibbs CJ, Mason, Aickin JJ; *Australian Mutual Provident Society v GEC Diesels Australia Ltd* [1989] VR 407 at 410, per Young CJ, Marks, Ormiston JJ.

(6) The joint or several liability of the multiple defendants which is the foundation of the statutory provision is in each case, or collectively, a liability found by the Court against them in favour of P for the damages which the Court has determined to award to P. There is no requirement in the section that there be otherwise any commonality in these liabilities.

(7) The task of the Court in determining responsibility under s. 131(1) is similar to that of the Court awarding contribution under s. 24(2) of the *Wrongs Act* or assessing contributory negligence under s. 26(1)(b) of the *Wrongs Act*. This follows from the similarity of the verbiage of the sections.

(8) Notwithstanding that the terms of the statute direct the Court to give judgment against D1 and D2 in accordance with its responsibility, the Court is so acting in the conventional environment of adversary civil litigation. Accordingly, if no party seeks such an apportionment order it is not for the Court to intervene in order to make one. It may be that the provision in this regard is different under the South Australian equivalent.[222] Normally, it will be P who moves for judgment. Under s. 131 it would seem that D1 who is at risk of suffering judgment for the full amount of P's claim might also pursue D2 seeking an order under s. 131. It will indicate its intention to do so by giving notice under R 11.15 to D2 together with a pleading setting out the facts upon which it relies. D2 may join issue in its defence or allege facts which minimise its own responsibility for P's loss and damage. There would in the ordinary course be no need for D2 itself to file a statement of claim seeking apportionment against D1 or other co-defendants. This is because the allegations which D2 might make with a view to fastening responsibility upon D1 or any other co-defendant will normally appear in the pleading of D1 and in D2's own defence to that pleading. Where P seeks no judgment for damages against a particular defendant and where no defendant against whom such a judgment by P is to be given seeks apportionment against that

222 See *NBD Bank v South Italy Tiling SA* [1997] SADC 3596.

defendant, then judgment should be given for that defendant.[223]

(9) A matter of particular difficulty is the application of the apportionment regime in a contractual environment such as the present. The legislation, in its original form is based upon the work of the Australian Uniform Building Regulations Co-ordinating Council in 1991. The council published model provisions for building regulatory legislation of which ss. 180 and 181 are evidently the progenitors of the Victorian ss. 131 and 132. These model sections together with s. 179 are in the following terms.

> "179(1) Sections 180-183 apply to an action of tort (including an action for damages for breach of statutory duty) for damages for economic loss and rectification costs resulting from defective construction of building work or other work carried out under this Act.
>
> (2) Sections 180-183 do not affect any right to recover damages for death or personal or bodily injury resulting from defective construction.
>
> 180(1) After determining an award of damages in an action, a court is to apportion the total amount of the damages between all persons who are found in that action to be jointly or severally liable for those damages, having regard to the extent of each person's responsibility for the damage.
>
> (2) The liability for damages of a person found to be jointly or severally liable for damages in an action is limited to the amount apportioned to the person by the court.
>
> 181(1) A person found to be jointly or severally liable for damages in an action cannot be required to contribute to the damages apportioned to any other person in the same action or to indemnify any such other person.
>
> (2) A person found to be jointly or severally liable for damages in an action may recover contribution from any other tortfeasor not a party to the action who is, or would if sued have been, liable in respect of the same damage, whether as a joint tortfeasor or otherwise.
>
> (3) A person is not entitled to recover contribution under this

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223 *Boral Resources (Vic) Pty Ltd v Robak Engineering and Construction Pty Ltd* [1999] 2 VR 507 at 511, per Batt JA.

> section from any person entitled to be indemnified by the person in respect of the liability for which the contribution is sought."

It will be seen that the model legislation was concerned, like the contribution legislation in most jurisdictions then in force, only with liability in tort.[224] The statutes based on this model which were enacted in South Australia,[225] New South Wales,[226] and ACT[227] as well as s 131 of the Victorian Act are not so limited. In a case such as the present, the legislative apportionment regime must address the commercial decision of the parties to a building project to apportion the risk and consequent liability for defective work in a particular way – a way which may not reflect their responsibility as it appears in the litigation which may follow. The purpose of agreeing to the apportionment of risk and liability at contract stage is to avoid, as far as possible, the difficulties which cases such as the present have raised.

355 I turn now to each of the s. 131 claims identifying each by the name of the plaintiff.

THE BARWON S. 131 CLAIM

356 Only Wynton Stone pressed this claim. In final address even this party conceded that the statutory apportionment regime had no application to the Barwon claim. I therefore put this s. 131 claim as pleaded, to one side.

THE AQUATEC S. 131 CLAIM

357 The Aquatec claim against Minson Nacap is, as I have concluded, a building action. It is a claim brought by Aquatec in contract for damages for loss occasioned by defective design work for which Minson Nacap alone was contractually responsible. Aquatec sought relief against no other party. Minson Nacap, which accepts the justice of this claim as well as much of the measure of damages, now seeks to share its liability with Montgomery Watson, Wynton Stone, Barrett Fuller, Fisher Stewart

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224 This has been retained in the Building Act 1996 (N.T) s 154 sub-s 1.

225 *Development Act* 1993(SA) s 72, but the provision is in rather different terms from the model legislation or the Victorian legislation.

226 *Environmental Planning and Assessment Act* 1979 S 109ZJ.

227 *Construction Practitioners Registration Act* 1988 ACT s 26(1)

and TTW on the basis that each of them is in breach of a duty of care owed to Aquatec and that, accordingly, each is jointly or severally liable to Aquatec for those damages.

358 Minson Nacap's primary position, as I have mentioned, was to accept sole liability for these damages and to seek to pass to Montgomery Watson as the party contractually responsible for the design work. For this reason its claim under s. 131 was put in the alternative and it was pressed with somewhat less enthusiasm than the s. 131 claims of those parties which followed.

359 The essence of the claim, however, was that the co-defendants were also liable to Aquatec in damages in the building action. In this case, this liability was put in negligence, that is, that each of Montgomery Watson, Wynton Stone, Barrett Fuller, Fisher Stewart and TTW were in breach of a duty of care owed to Aquatec. I have concluded that none of these parties other than TTW owed Aquatec a duty of care [228] and that TTW was not in breach of duty[229] are fatal to this s. 131 claim which must therefore be rejected.

THE MINSON NACAP S.131 CLAIM

360 The claim brought by Minson Nacap is a building action within the meaning of s 139. In its current manifestation it is a claim in damages for breach of contract brought by Minson Nacap against Montgomery Watson alone. Montgomery Watson admits liability for breach of contract and has agreed to the quantification of much of the claim against it. I have provisionally determined upon an award of damages in favour of Minson Nacap against Montgomery Watson in the sum of $4,186,312.[230]

361 Montgomery Watson seeks apportionment of these damages between itself and Aquatec, Wynton Stone, Barrett Fuller, Fisher Stewart and TTW. These five parties are described in the Montgomery Watson pleading as having been joined as third parties by Montgomery Watson in its capacity as third defendant to the Barwon

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228 See paras [277],[283],[289], [296] and [302] above.
229 See para [303] above.
230 See para [113] above.

counter-claim. Montgomery Watson contends that each of these third parties owes a duty of care to Minson Nacap and that each is in breach of that duty whereby Minson Nacap has or is liable to suffer the same loss and damage as it does from the tortious acts of the third parties from the breach of contract by Montgomery Watson. Insofar as it may be found liable in damages to Minson Nacap, Barrett Fuller seeks apportionment against Montgomery Watson, Wynton Stone, Fisher Stewart and TTW.[231]

362 The first difficulty arises from the constitution of the s 131 claim from a procedural point of view. The current structure of the litigation for present purposes is as follows: Barwon is counter-claimant against Aquatec. Aquatec as defendant to the Barwon counterclaim has joined five defendants including Minson Nacap and Montgomery Watson. Aquatec has sued Minson Nacap which in turn has brought in as co-defendants Montgomery Watson, Wynton Stone, Barrett Fuller, Fisher Stewart and TTW. Minson Nacap has filed a statement of claim against Montgomery Watson alone. At this point, then, Montgomery Watson is one of six defendants to the Barwon counterclaim and one of six defendants to the Aquatec claim and the sole defendant to the Minson Nacap claim. It has made claims against Aquatec, Minson Nacap, Wynton Stone, Barrett Fuller, Fisher Stewart and TTW as third parties. In its third party statement of claim it is said that these parties are third parties to each of the Barwon claim, the Aquatec claim and the Minson Nacap claim. Since they are all defendants to the Barwon claim and the Aquatec claim, apportionment is procedurally available without their having been joined as third parties. Since they are not defendants to the Minson Nacap claim, apportionment is procedurally not available and this difficulty is not overcome by adding them as third parties. But there is a further procedural difficulty in this claim. This arises because Minson Nacap brings its action for damages against Montgomery Watson, not as a plaintiff against the defendant, but as a defendant against a co-defendant pursuant to R. 11.15. In these circumstances, it is difficult to see how Montgomery Watson could treat as co-defendants, for the purposes of s. 131, the five parties against whom

231 Barrett Fuller statement of claim 1 July 2003, paragraph 10

apportionment is sought. In any event, these difficulties have been resolved by the acceptance by all relevant parties that no point be taken at these essentially procedural matter. I am content to proceed on that basis.

363 I have concluded that none of Aquatec, Wynton Stone, Barrett Fuller, Fisher Stewart or TTW is liable to Minson Nacap in damages for negligence. No other basis for liability is contended for. I will not therefore order apportionment pursuant to s. 131 in this claim brought by Minson Nacap.

THE MONTGOMERY WATSON S. 131 CLAIM

364 I would not award damages against Wynton Stone for breach of its sub-consultancy agreement with Montgomery Watson for its liability has been released by the deed of novation. Montgomery Watson has, however, been successful in its breach of warranty claim. This claim is a building action for it concerns defective building work. The judgment which I have determined to award in favour of Montgomery Watson against Wynton Stone is one for damages so that the pre-conditions for the application of s. 131 have been satisfied. Wynton Stone then seeks apportionment of this judgment against Minson Nacap, Barrett Fuller and Fisher Stewart, but it makes no allegation against them of liability to Montgomery Watson. I was told that it was content to adopt the allegations of other parties[232] but none of its co-third parties, except TTW, makes an allegation that any of the co-third parties is liable in damages to Montgomery Watson. I concluded that none of Minson Nacap, Barrett Fuller or Fisher Stewart is liable in negligence to Montgomery Watson.[233] There was no other basis for any of them to be liable to Montgomery Watson in damages. I will not therefore make an apportionment order pursuant to s. 131.

THE WYNTON STONE S. 131 CLAIM

365 The claim by Wynton Stone is a building action and I have determined to award judgment for damages in favour of Wynton Stone against Barrett Fuller.

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232 See para [55] above.

233 See paras [322]-[324] above.

Accordingly, the preconditions to the application of s. 131 have been satisfied. Barrett Fuller seeks apportionment of this judgment against Minson Nacap, Montgomery Watson, Fisher Stewart and TTW.[234] The grounds for this are said to have been set forth in the further pleadings of the other parties. In none of these pleadings is it contended that any of those parties are liable to Wynton Stone in damages. I therefore do not find that any of those parties is liable to Wynton Stone in damages. I will not make an apportionment order in this claim pursuant to s.131.

THE TTW S. 131 CLAIM

366 I have found that TTW has assumed the liability of Wynton Stone for its defective design executed before the deed of novation. Accordingly, I have determined to make an award of damages in favour of Montgomery Watson against TTW. Since the Montgomery Watson claim is a building action, the preconditions for the application of s. 131 have been satisfied.

367 TTW then seeks apportionment of this judgment against Aquatec, Minson Nacap, Barrett Fuller and Fisher Stewart. I do not find any of these parties is liable to Montgomery Watson in damages. Accordingly, I will not make a s. 131 apportionment order in this claim.

THE CONTRIBUTION CLAIM

368 Each of the parties against whom judgment is to be given seeks contribution against other parties. The parties seeking contribution are Aquatec, Minson Nacap, Montgomery Watson, Wynton Stone, Barrett Fuller and TTW. Each of these contribution claims depends upon the party seeking contribution establishing that the proposed contributor is itself liable to the party in whose favour the judgment is to be given. These last-mentioned parties are respectively Barwon, Aquatec, Minson Nacap, Montgomery Watson, Wynton Stone and, again, Montgomery Watson. The requirement in s. 23B that there be liability to the party in whose favour judgment is to be given, is not identical to the requirement in s. 131 that D2 be found liable to P in damages. Nevertheless, my conclusions that the allegations of liability by D2 to P in

234 Statement of claim, paragraph 11.

each of the apportionment claims in this case carry with them a conclusion which is fatal to each of the contribution claims. In short, I am not satisfied that in any of the contribution claims any of the suggested contributors is liable to the party in whose favour judgment is to be given.

369 This is, of course, not to say that in each case the burden of satisfying the judgments which I give against Aquatec, Minson Nacap, Montgomery Watson, Wynton Stone, Barrett Fuller and TTW will necessarily remain with the party against whom the judgment is to be given. This is because each of them has a claim over against a further party which includes as part of the damages the amount of that judgment.

CONCLUSIONS

370 The conclusions which I have arrived at are complicated. The contract claims by Barwon, [235] Aquatec, [236] Minson Nacap[237] and Wynton Stone[238] have been successful. The damages claims in negligence, the contribution claims and the apportionment claims have not been made out. The TTW claim under the Deed of Indemnity against Wynton Stone and Mr Sloggett have been established.[239] I will hear counsel in due course as to the orders which ought to be made to give effect to my conclusions, as to the remaining issues as to quantum and as to costs.

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235 See para [87] above.
236 See para [91] above.
237 See para [100] above.
238 See para [238] above.
239 See para [262] above.